PRODUCT INFORMATION:

Trade Name: Servo Superior 10W-30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 80 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 20%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 9.5 – 11.5
40 °C: -
Pour Point °C: (-) 27
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 0.68 – 1.20
TBN mg KOH/gm: 5.5 – 8.0
TAN mg KOH/gm: -
Flash Point Deg C(COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION :

Trade Name : Servo Superior 10W-40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil - 80 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 20%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 190 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
   Male  > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13.5 – 15.5
40 °C: -
Pour Point °C: (-) 27
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 0.68 – 1.2
TBN mg KOH/gm: 5.5 – 8.0
TAN mg KOH/gm: -
Flash Point Deg C(COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Superior 15W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 80 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 20%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
  Male > 25,000 mg/kg. B Wt.
  Female > 25,000 mg/kg. B Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13.5 – 15.5
40 °C: -
Pour Point °C: (-) 24
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 0.8
TBN mg KOH/gm: 6 - 8
TAN mg KOH/gm: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Superior 20W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 80 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 20%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13.5 – 15.5
40 °C: -
Pour Point °C: (-) 21
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 0.68 – 1.2
TBN mg KOH/gm: 6 - 8
TAN mg KOH/gm: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Superior 20W-50  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil - 80 %wt  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 20%  
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

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<td>TBN mg KOH/gm</td>
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<td>TAN mg KOH/gm</td>
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<td>Hazardous Polymerisation</td>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Superior XEE 10W-30  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil 85%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 – 12%  
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 190 Min  
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats  
Male  > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.  
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre  
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.  
Cloves : Neoprene or nitrile rubber gloves recommended.  
Goggles : Chemical splash goggles.  
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 9.5 – 11.5
  - 40 °C: -
- Pour Point °C: (-) 27
- Colour ASTM: 8.0
- Odour: Slight
- S. Ash, % Wt.: 0.8 – 1.1
- TBN mg KOH/gm: 6.2 – 8.3
- TAN mg KOH/gm: -
- Flash Point Deg C(COC): 190 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Superior XEE 10W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
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Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
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Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 14.0 – 15.5
    40 °C: -
Pour Point °C: (-) 27
Colour ASTM: 8.0
Odour: Slight
S. Ash, % Wt.: 0.8 – 1.2
TBN mg KOH/gm: 8.0 – 10.5
TAN mg KOH/gm: -
Flash Point Deg C(COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

PRODUCT INFORMATION:

Trade Name : Servo Superior XEE 15W-40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 200 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

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CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 14.0 – 15.5
   40 °C: -
Pour Point °C: (-) 24
Colour ASTM: 8.0
Odour: Slight
S. Ash, % Wt.: 0.8 – 1.2
TBN mg KOH/gm: 10 - 12
TAN mg KOH/gm: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Superior XEE 20W-50
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

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Inhalation: Remove to fresh air. Seek medical aid.

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<td>40 °C : -</td>
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<td>(-) 21</td>
</tr>
<tr>
<td>Colour ASTM</td>
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</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
</tr>
<tr>
<td>S. Ash, % Wt.</td>
<td>0.8 – 1.2</td>
</tr>
<tr>
<td>TBN mg KOH/gm</td>
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<td>Flash Point Deg C(COC)</td>
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<td>Vapour Density</td>
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<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Vapour pressure kPa</td>
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<td>Hazardous Polymerisation</td>
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The material reacts violently with:

<table>
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<tr>
<th>Reactant</th>
<th>Air</th>
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<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo Superior XEE SH 10W-30
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 – 12%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 204 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
    Male > 25,000 mg/kg. B.Wt.
    Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 9.5 – 12.0 Min
- 40 °C: –
- Pour Point °C: (-) 27
- Colour ASTM: 8.0 Max
- Odour: Slight
- S. Ash, % Wt.: 0.12
- TBN mg KOH/gm: 6.8 – 8.8
- TAN mg KOH/gm: -
- Flash Point Deg C(COC): 204 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
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<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Superior XEE SH 10W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 – 12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 205 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
  Male > 25,000 mg/kg. B.Wt.
  Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 13.3 - 14.3 Min
  - 40 °C: -
- Pour Point °C: (-) 27
- Colour ASTM: 8.0 Max
- Odour: Slight
- S. Ash, % Wt.: 0.12
- TBN mg KOH/gm: 6.8 – 8.8
- TAN mg KOH/gm: -
- Flash Point Deg C(COC): 205 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
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<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Super MG 5W-30  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 85% wt  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9-12%  
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 160 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male: > 25,000 mg/kg. B.Wt.  
Female: > 25,000 mg/kg. B.Wt.  

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
**ENVIRONMENTAL PROTECTION:**

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

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**CHEMICAL AND PHYSICAL PROPERTIES:**

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 11 - 12
 40 °C : -
Pour Point °C : (-) 33
Colour ASTM : 8.0
Odour : Slight
S. Ash, % Wt. : 1.3
TBN mg KOH/gm : 6 - 12
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 160 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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<tr>
<th>Air</th>
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<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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Date of Issue : Feb., 1998
Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servo Super MG 10W-30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
  Male > 25,000 mg/kg. B.Wt.
  Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 9.5 – 11.5
40 °C: -
Pour Point °C: (-) 27
Colour ASTM: 8.0
Odour: Slight
S. Ash, % Wt.: 0.8
TBN mg KOH/gm: 6 - 8
TAN mg KOH/gm: -
Flash Point Deg C(COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

Air Water Heat Strong Oxidizers Others
No No No may react at high -

Date of Issue: Feb., 1998 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Super 10W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13.5 – 15.5
40 °C: -
Pour Point °C: (-) 27
Colour ASTM: 8.0
Odour: Slight
S. Ash, % Wt.: 0.8
TBN mg KOH/gm: 6 - 8
TAN mg KOH/gm: -
Flash Point Deg C (COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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<tr>
<th></th>
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<th>Heat</th>
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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo Super MG 20W-40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 85%wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 200 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Coves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

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<td>Specific Gravity</td>
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<tr>
<td>Water Solubility</td>
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<td>K. Vis, cSt 100 °C</td>
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<tr>
<td>Pour Point °C</td>
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<td>Colour ASTM</td>
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<td>Odour</td>
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<td>S. Ash, % Wt.</td>
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<td>TAN mg KOH/gm</td>
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<td>Vapour Density</td>
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<td>Evaporation Rate</td>
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<td>Vapour pressure kPa</td>
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<td>Hazardous Polymerisation</td>
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The material reacts violently with:

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<tr>
<th>Reacts with</th>
<th>Air</th>
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<th>Heat</th>
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<th>Others</th>
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<tr>
<td></td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Super MG 20W-50
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
  Male > 25,000 mg/kg. B.Wt.
  Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 17.5 – 19.5
40 °C : -
Pour Point °C : (-) 21
Colour ASTM : 8.0
Odour : Slight
S. Ash, % Wt. : 0.8
TBN mg KOH/gm : 4 – 7
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
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</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Gear Super 80W
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 92 wt% 
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 7 - 8%
End Use: Gear oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 165 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 4,750 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 8 - 10
- 40 °C: 75
- Pour Point °C: (-) 27
- Copper Corrosion 121 Deg C/Hr.: 3.0 Max
- Odour: Slight
- S. Ash, % Wt.: –
- TBN mg KOH/gm: –
- TAN mg KOH/gm: –
- Flash Point Deg C(COC): 165 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
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<th>Strong Oxidizers</th>
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<td>may react at high temperatures</td>
<td>-</td>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Gear Super 90
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil - 92 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 7 - 8 %
End Use : Gear oil

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 180 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 4,750 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pickup free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>-</td>
</tr>
<tr>
<td>Specific Gravity</td>
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</tr>
<tr>
<td>Water Solubility</td>
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<tr>
<td>K. Vis, cSt 100 °C</td>
<td>16 -18</td>
</tr>
<tr>
<td>40 °C</td>
<td>200</td>
</tr>
<tr>
<td>Pour Point °C</td>
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<tr>
<td>Copper Corrosion 121 Deg C/Hr.</td>
<td>3.0 Max</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
</tr>
<tr>
<td>S. Ash, % Wt.</td>
<td>-</td>
</tr>
<tr>
<td>TBN mg KOH/gm</td>
<td>-</td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
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<tr>
<td>Flash Point Deg C(COC)</td>
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<tr>
<td>Vapour Density</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>Vapour pressure kPa</td>
<td>N.A.</td>
</tr>
<tr>
<td>Hazardous Polymerisation</td>
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The material reacts violently with:

<table>
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<tr>
<th>Reactant</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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<tr>
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<td>may react at high temperatures</td>
<td>-</td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Gear Super 140
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 92 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 7 – 8%
End Use: Gear Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 4,750 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 28 - 34
- 40 °C: 500
- Pour Point °C: 0
- Copper Corrosion 121 Deg C/Hr.: 3.0 Max
- Odour: Slight
- S. Ash, % Wt.: –
- TBN mg KOH/gm: -
- TAN mg KOH/gm: -
- Flash Point Deg C(COC): 190 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Reacts with</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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<td>-</td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Gear Super 80W-90
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 92 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 7 - 8%
End Use: Gear Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 165 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 4,750 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 13 –15
        40 °C : 140
Pour Point °C : (-) 27
Copper Corrosion 121 Deg C/Hr. : 3.0 Max
Odour : Slight
S. Ash, % Wt. : -
TBN mg KOH/gm : -
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 165 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Gear Super 85W-140
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 92 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 7 - 8%
End Use: Gear oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 180 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 4,750 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 28 - 32
40 °C : 412
Pour Point °C : (-) 18
Copper Corrosion 121 Deg/Hr. : 3.0 Max
Odour : Slight
S. Ash, % Wt. : –
TBN mg KOH/gm : -
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 180 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
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<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
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</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Gear SM 90
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%
Additive package (Antioxidant, Antiwear, Antifoam, PPD)
End Use: Gear Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 4,750 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Coves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 15 - 18
40 °C : 190
Pour Point °C : (-) 9
Cu Corrosion 121 Deg C/3 Hrs. : 1.0 Max
Odour : Slight
RCR % : 2.0
TBN mg KOH/gm : –
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air Water Heat Strong Oxidizers Others
No No No may react at high temperatures -

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo Gear SM 140
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 100%
Additive package (Antioxidant, Antiwear, Antifoam, PPD)
End Use : Gear Oil

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 230 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 4,750 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 30 - 35
40 °C : 546
Pour Point °C : (-) 3
Cu Corrosion 121 Deg C/3 Hrs. : 1.0 Max
Odour : Slight
RCR % : 2.0
TBN mg KOH/gm : –
TAN mg KOH/gm : –
Flash Point Deg C(COC) : 230 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</thead>
<tbody>
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</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Gear SM 250
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%
Additive package (Antioxidant, Antiwear, Antifoam, PPD)
End Use: Gear Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 250 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
                               Male > 25,000 mg/kg. B.Wt.
                               Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 4,750 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>-</td>
</tr>
<tr>
<td>Specific Gravity</td>
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</tr>
<tr>
<td>Water Solubility</td>
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<td>K. Vis, cSt 100 °C</td>
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<td>40 °C: 1002</td>
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<tr>
<td>Pour Point °C</td>
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<td>Copper corrosion 121°C/3 Hrs.</td>
<td>1.0 Max</td>
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<tr>
<td>Odour</td>
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<td>RCR %</td>
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<tr>
<td>TBN mg KOH/gm</td>
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<td>TAN mg KOH/gm</td>
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<td>Flash Point Deg C(COC)</td>
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The material reacts violently with:

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Date of Issue: Feb., 1998  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride 10W
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with water. Use protective equipments.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount using inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 5 Min
  - 40 °C: -
- Pour Point °C: (-) 27
- Colour, ASTM: 8.0 Max
- Odour: Slight
- S. Ash, % Wt.: 1.2 – 1.9
- TBN mg KOH/gm: 10 - 14
- TAN mg KOH/gm: -
- Flash Point Deg C(COC): 190 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
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<td></td>
<td>temperatures</td>
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</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride 20W
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 205 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with water. Use protective equipments.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) : In Rats
  Male > 25,000 mg/kg. B.Wt.
  Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 7 - 9
40 °C: -
Pour Point °C: (-) 21
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 1.2 – 1.9
TBN mg KOH/gm: 10 -14
TAN mg KOH/gm: -
Flash Point Deg C(COC): 205 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cool with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIROMENTAL PROTECTION :

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount using inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES :

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10 - 12
       40 °C : 98
Pour Point °C : (-) 6
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.2 – 1.9
TBN mg KOH/gm : 10 -15
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of : Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servo Pride 40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with water. Use protective equipments.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount using inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 13 – 15
     40 °C : 145
Pour Point °C : (-) 6
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.2 – 1.9
TBN mg KOH/gm : 10 - 15
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 225 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride 50
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15 %
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 230 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with water. Use protective equipment.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount using inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 18 - 20
   40 °C : 235
Pour Point °C : (-) 6
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.2 – 1.9
TBN mg KOH/gm : 10 - 15
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 230 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Pride 10W-30
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral Oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use : Automotive Lubricating Oil for Crankcase.

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 190 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with water. Use protective equipments.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
   Male   > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Coves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount using inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10 - 12
40 °C : -
Pour Point °C : (-) 21
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.3 – 1.7
TBN mg KOH/gm : 10 - 14
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride 20W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral Oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 -15%
End Use: Automotive Lubricating oil for Crankcase.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with water. Use protective equipments.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
                 Male  > 25,000 mg/kg. B.Wt.
                 Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount using inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13.5 – 15.5
   40 °C: -
Pour Point °C: (-) 21
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 1.2 – 1.5
TBN mg KOH/gm: 10 - 12
TAN mg KOH/gm: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride 20W-50
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral Oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with water. Use protective equipments.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
    Male > 25,000 mg/kg. B.Wt.
    Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 17.5 – 19.5
40 °C : -
Pour Point °C : (-) 21
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : -
TBN mg KOH/gm : -
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Premium 20W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 13.5 – 15.5
        40 °C : -
Pour Point °C : (−) 21
Colour ASTM : 8.0
Odour : Slight
S. Ash, % Wt. : 1.6
TBN mg KOH/gm : 11 - 13
TAN mg KOH/gm : -
Flash Point Deg C (COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air      Water      Heat      Strong Oxidizers      Others
No       No         No        may react at high temperatures -

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Premium XHP 15W-40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 14 - 15
40 °C: -
Pour Point °C: (-) 24
Colour ASTM: 8.0
Odour: Slight
S. Ash, % Wt.: 1.47
TBN mg KOH/gm: 12 - 15
TAN mg KOH/gm: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Premium CF-4 15W-40  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil  85 %wt  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%  
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC       :  200 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats  
Male       > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.  
Cloves : Neoprene or nitrile rubber gloves recommended.  
Goggles : Chemical splash goggles.  
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13.5 – 15.5
40 °C: -
Pour Point °C: (-) 24
Colour ASTM: 8.0
Odour: Slight
S. Ash, % Wt.: 1.15 – 1.5
TBN mg KOH/gm: 9 – 12.5
TAN mg KOH/gm: 0.12
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

Air Water Heat Strong Oxidizers Others
No No No may react at high temperatures -

Date of Issue: Feb., 1998 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Pride Super 15W-40  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 85%wt  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%  
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.  

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 13.5 – 15.5
40 °C : 105
Pour Point °C : (-) 24
Colour ASTM : 8.0
Odour : Slight
S. Ash, % Wt. : 1.5 – 1.95
TBN mg KOH/gm : 14 - 16
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air Water Heat Strong Oxidizers Others
No No No may react at high temperatures -

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Ultra 10W
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral Oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 -15%
End Use : Automotive Lubricating Oil for Crankcase.

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 190 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.
Coves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
**ENVIRONMENTAL PROTECTION:**

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

---

**CHEMICAL AND PHYSICAL PROPERTIES:**

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 5 Min
40 °C : 35
Pour Point °C : (-) 27
Colour, ASTM : 7.0 Max
Odour : Slight
S. Ash, % Wt. : 1.2 – 1.6
TBN mg KOH/gm : 10 - 15
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Ultra 20  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 85 %wt  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%  
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
  Male > 25,000 mg/kg. B.Wt.  
  Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Coves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 6 - 8
40 °C: 49
Pour Point °C: (-) 6
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 1.5 – 1.9
TBN mg KOH/gm: 13 - 15
TAN mg KOH/gm: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
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<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Ultra 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15 %
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10 -12
40 °C : 98
Pour Point °C : (-) 6
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.5 – 1.9
TBN mg KOH/gm : 13 - 15
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
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<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Ultra 40
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85%wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 225 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

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<tbody>
<tr>
<td>Boiling Point, °C</td>
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</tr>
<tr>
<td>Specific Gravity</td>
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</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>13 - 15</td>
</tr>
<tr>
<td>40 °C</td>
<td>145</td>
</tr>
<tr>
<td>Pour Point °C</td>
<td>(-) 6</td>
</tr>
<tr>
<td>Colour, ASTM</td>
<td>8.0 Max</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
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<tr>
<td>S. Ash, % Wt.</td>
<td>1.5 – 1.9</td>
</tr>
<tr>
<td>TBN mg KOH/gm</td>
<td>13 -15</td>
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<tr>
<td>TAN mg KOH/gm</td>
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</tr>
<tr>
<td>Flash Point Deg C(COC)</td>
<td>225 Min.</td>
</tr>
<tr>
<td>Vapour Density</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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<tr>
<td>Vapour pressure kPa</td>
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<td>Hazardous Polymerisation</td>
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The material reacts violently with:

<table>
<thead>
<tr>
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<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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<tr>
<td></td>
<td>No</td>
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<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
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</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Ultra 50
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85% wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 230 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
- Male > 25,000 mg/kg. B.Wt.
- Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 18 - 20
40 °C : 235
Pour Point °C : (-) 6
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.5 – 1.9
TBN mg KOH/gm : 13 -15
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 230 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
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<tbody>
<tr>
<td>React</td>
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<td>No</td>
<td>No</td>
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<td>-</td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Ultra KB 10W
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral Oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION :

Water disposal method : Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage : Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES :

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 5 Min
         40 °C : 35
Pour Point °C : (-) 27
Colour, ASTM : 7.0 Max
Odour : Slight
S. Ash, % Wt. : 1.2 – 1.6
TBN mg KOH/gm : 9 - 11
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
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<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
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</table>

Date of Issue : Feb., 1998
Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servo Ultra KB 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil - 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 10 –12
      40 °C: 98
Pour Point °C: (-) 6
Colour, ASTM: 7.0 Max
Odour: Slight
S. Ash, % Wt.: 1.3 – 1.6
TBN mg KOH/gm: 9 - 11
TAN mg KOH/gm: -
Flash Point Deg C(COC): 220 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo CKD Skoda Genuine DG Set Oil
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral Oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 11 - 15%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 225 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENvironmental Protection:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

Chemical and Physical Properties:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 13 - 15
        40 °C: 145
Pour Point °C: (-) 6
Colour, ASTM: 8.0 Max
Odour: Slight
S. Ash, % Wt.: 1.5 – 1.9
TBN mg KOH/gm: 13 - 15
TAN mg KOH/gm: -
Flash Point Deg C(COC): 225 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others
No   No    No    may react at high temperatures  -

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name : Servo Tractor Oil 20W-40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 85%wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 200 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 14.5 – 16.3
        40 °C : -
Pour Point °C : (-) 21
Colour ASTM : 8.0
Odour : Slight
S. Ash, % Wt. : -
TBN mg KOH/gm : 11 – 13
TAN mg KOH/gm : 1.5 – 1.9
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air   Water   Heat   Strong Oxidizers   Others
No    No      No     may react at high temperatures -

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo RR 407
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: 88 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 12%
End Use: Lubricating Oil for Crankcase in Railway Diesel Engines.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 225 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
  Male > 25,000 mg/kg. B.Wt.
  Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 15.5 – 16.3
        40 °C :  171
Pour Point °C : (-) 6
Colour, ASTM : 8.0 Max
Odour : Slight
S. Ash, % Wt. : 1.4
TBN mg KOH/gm : 13
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 225 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
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<th>Strong Oxidizers</th>
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Date of Issue: Feb., 1998  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo RR 408
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: 88 % wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use: Lubricating Oil for Crankcase in Railway Diesel Engines.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 225 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

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<tr>
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<td>Pour Point °C</td>
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<td>Flash Point Deg C(COC)</td>
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<td>The material reacts violently with:</td>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Transmission C 3 SAE 10W  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil  85 %wt  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%  
End Use : Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS :  None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC :  190 Min  
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.  
Cloves : Neoprene or nitrile rubber gloves recommended.  
Goggles : Chemical splash goggles.  
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 5.6 Min
        40 °C: 33
Pour Point °C: (-) 29
Colour ASTM: 3.5 Max
Odour: Slight
S. Ash, % Wt.: 1.0 – 1.3
TBN mg KOH/gm: 8.5 – 11.2
TAN mg KOH/gm: -
Flash Point Deg C(COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servo Transmission C 3 SAE 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 215 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 9.3 – 12.5 Min
     40 °C : 83
Pour Point °C : (-) 18
Colour ASTM : 5 Max
Odour : Slight
S. Ash, % Wt. : 1.0 – 1.3
TBN mg KOH/gm : 8.5 – 11.2
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 215 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
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<th>Heat</th>
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</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION :

Trade Name : Servo Torque 10
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil  85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use : Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS :  None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC       :  160 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) :   In Rats
                             Male     > 25,000 mg/kg. B.Wt.
                             Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) :   > 5,000 mg/litre

Eye Irritation :  May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes :  Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin :  Wash with soap and water.
Ingestion :  Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation :  Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation :  Mechanical ventilation recommended.
Cloves :  Neoprene or nitrile rubber gloves recommended.
Goggles :  Chemical splash goggles.
Others :  Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 4.7 – 5.7
    40 °C : 30
Pour Point °C : (-) 25
Colour ASTM : 3.5 Max
Odour : Slight
S. Ash, % Wt. : 0.94 – 1.14
TBN mg KOH/gm : -
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 160 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air   Water   Heat   Strong Oxidizers   Others
No    No      No      may react at high temperatures -

Date of Issue : Feb., 1998
Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servo Transdex II
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 160 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 6.8 – 7.5
   40 °C : 36
Pour Point °C : (-) 39
Colour ASTM : Red
Odour : Slight
S. Ash, % Wt. : 0.05
TBN mg KOH/gm : –
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 160 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Transmission T 20
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 9.1 – 9.7
        40 °C : 60
Pour Point °C : (-) 37
Colour ASTM : 5 Max
Odour : Slight
S. Ash, % Wt. : 1.5 – 1.8
TBN mg KOH/gm : -
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Transmission Fluid 10
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 180 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 7.2 – 7.8
40 °C : 33
Pour Point °C : (-) 39
Colour ASTM : Red
Odour : Slight
S. Ash, % Wt. : –
TBN mg KOH/gm : –
TAN mg KOH/gm : –
Flash Point Deg C(COC) : 180 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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<tr>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Transfluid A
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85 %wt
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 -12%
End Use: Automotive Lubricating Oil for Transmission

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 180 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male: > 25,000 mg/kg. B.Wt.
Female: > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIROMENTAL PROTECTION :

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C : 7.4 – 7.9
       40 °C : 38
Pour Point °C : (-) 39
Colour ASTM : Red
Odour : Slight
S. Ash, % Wt. : 1.4 – 1.7
TBN mg KOH/gm : -
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 180 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
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</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Guard 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use: Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg B.Wt.
Female > 25,000 mg/kg B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 10 - 12
        40 °C: 87
Pour Point °C: (-) 18
Colour ASTM: 8.0
Odour: Slight
Sulphated Ash % Wt.: 1.0 – 1.6
TBN mg KOH/gm: 7.0 – 8.5
TAN mg KOH/gm: -
Flash Point Deg C(COC): 220 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

Air       Water       Heat       Strong Oxidizers       Others
No        No          No         may react at high
            temperatures

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Guard 50
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 85%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 9 - 12%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 230 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
    Male > 25,000 mg/kg. B.Wt.
    Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 19.5 – 20.5
        40 °C : 245
Pour Point °C : (-) 9
Colour ASTM : 8.0
Odour : Slight
Sulphated Ash % Wt. : 1.0 – 1.6
TBN mg KOH/gm : 7.0 – 8.5
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 230 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Special NG 40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 96%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%
End Use : Automotive Lubricating Oil for Crankcase

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 220 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 13 - 16
        40 °C : 134
Pour Point °C : (-) 12
Colour ASTM : -
Odour : Slight
Sulphated Ash % Wt. : 0.1
TBN mg KOH/gm : 2.0 – 2.4
TAN mg KOH/gm : -
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air | Water | Heat | Strong Oxidizers | Others
---|---|---|---|---
No | No | No | may react at high temperatures | -

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Preserve 30
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 96%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%
End Use : Automotive Lubricating cum Preservative Oil

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 220 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10 - 12
  40 °C : 98
Pour Point °C : (-) 18
Colour ASTM : 7.0
Odour : Slight
Sulphated Ash % Wt. : 0.8 – 1.1
TBN mg KOH/gm : 6 – 7
Zinc % Min. : 0.1
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Preserve 40
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 96%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%
End Use : Automotive Lubricating cum Preservative Oil

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 225 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 13 - 15
        40 °C : 145
Pour Point °C : (-) 12
Colour ASTM : 8.0
Odour : Slight
Sulphated Ash % Wt. : 0.8 – 1.1
TBN mg KOH/gm : 6 – 7
Zinc % Wt. : 0.1
Flash Point Deg C(COC) : 225 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servo Preserve 50
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 96%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%
End Use: Automotive Lubricating cum Preservative Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 230 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 18 - 20
40 °C: 230
Pour Point °C: (-) 6
Colour ASTM: 8.0
Odour: Slight
Sulphated Ash % Wt.: 0.8 – 1.1
TBN mg KOH/gm: 6 - 7
Zinc % Wt.: 0.1
Flash Point Deg C(COC): 230 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo Run-N-Oel 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 96%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%
End Use: Automotive Lubricating cum Preservative Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
                      Male > 25,000 mg/kg. B.Wt.
                      Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10 - 12
40 °C : 98
Pour Point °C : (-) 6
Colour ASTM : 7.0
Odour : Slight
Sulphated Ash % Wt. : 1.25 – 1.50
TBN mg KOH/gm : 8 – 9
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo Run-N-Oel Special 30  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil 96%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%  
End Use : Automotive Lubricating cum Preservative Oil

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 220 Min  
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide  
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HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) : In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.  

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.  
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.  
Coves : Neoprene or nitrile rubber gloves recommended.  
Goggles : Chemical splash goggles.  
Others : Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10 - 12
        40 °C : 95
Pour Point °C : (-) 18
Colour ASTM : 8.0
Odour : Slight
Sulphated Ash % Wt. : 0.65 – 0.80
TBN mg KOH/gm : 5.2 – 5.5
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI
MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servo Reo 30
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 96%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 3 - 4%
End Use: Automotive Lubricating cum Preservative Oil

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 11.5 – 12.3
- 40 °C: -
- Pour Point °C: (-) 6
- Colour ASTM: 8.0
- Odour: Slight
- Sulphated Ash % Wt.: 1.4 – 1.6
- TBN mg KOH/gm: 9.5 – 12.5
- Flash Point Deg C(COC): 220 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
IndianOil

SERVO ®
MATERIAL SAFETY DATA SHEET

AUTO

INDUSTRIAL

GREASES

Turbine Oils

Hydraulic Oils

Industrial Gear Oils

Refrigeration Compressor Oils

Stream Cylinder Oils

Open Gear Compounds

Others

Servoprime 32

Servoprime 46

Servoprime 57

Servoprime 68

Servoprime 76

Servoprime 32LP

Servoprime 46LP

Servoprime 32T

Servoprime 46T

Servoprime 57T

Servoprime 68T

Servoprime 32A
PRODUCT INFORMATION:

Trade Name: Servoprime 32
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

- Boiling Point, °C: -
- Specific Gravity: 0.89
- Water Solubility: Insoluble
- K. Vis, cSt 100 °C: 5.3
  - 50 °C: 20.8
  - 40 °C: 29 - 33
- Pour Point °C: (-) 6
- Colour ASTM: 1.5 Max
- Odour: Slight
- Rust Test D-665: Pass
- A&B 24 Hrs.
- Emulsion Test D-1401: 20
  - 40-37-3, Minutes, Max
- TAN mg KOH/gm: 0.2
- Air Release Min. @ 50°C: 4.0 Max
- Flash Point Deg C(COC): 200 Min.
- Vapour Density: N.A.
- Evaporation Rate: N.A.
- Vapour pressure kPa: N.A.
- Hazardous Polymerisation: No

The material reacts violently with:

- Air: No
- Water: No
- Heat: No
- Strong Oxidizers: may react at high temperatures
- Others: -

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male: > 25,000 mg/kg. B.Wt.
Female: > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point °C</td>
<td>-</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.89</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>6.7</td>
</tr>
<tr>
<td>50 °C</td>
<td>29.6</td>
</tr>
<tr>
<td>40 °C</td>
<td>43 - 48</td>
</tr>
<tr>
<td>Pour Point °C</td>
<td>(-) 6</td>
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<tr>
<td>Colour ASTM</td>
<td>2.0 Max</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
</tr>
<tr>
<td>Rust Test D-665</td>
<td>Pass</td>
</tr>
<tr>
<td>A&amp;B 24 Hrs.</td>
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</tr>
<tr>
<td>Emulsion Test D-1401</td>
<td>20</td>
</tr>
<tr>
<td>40-37-3, Minutes, Max</td>
<td></td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
<td>0.2</td>
</tr>
<tr>
<td>Air Release Min. @ 50°C</td>
<td>4.0 Max</td>
</tr>
<tr>
<td>Flash Point Deg C(COC)</td>
<td>200 Min.</td>
</tr>
<tr>
<td>Vapour Density</td>
<td>N.A.</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>N.A.</td>
</tr>
<tr>
<td>Vapour pressure kPa</td>
<td>N.A.</td>
</tr>
<tr>
<td>Hazardous Polymerisation</td>
<td>No</td>
</tr>
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The material reacts violently with:

<table>
<thead>
<tr>
<th>Reacts with</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 57  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 99%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%  
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 7.7
50 °C : 36.5
40 °C : 55 - 60
Pour Point °C : (-) 6
Colour ASTM : 2.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.2
Air Release Min. @ 50°C : 5.0 Max
Flash Point Deg C(COC) : 210 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 68
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Clove: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Boiling Point, °C</td>
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<tr>
<td>Specific Gravity</td>
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<tr>
<td>Water Solubility</td>
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<td>K. Vis, cSt 100 °C</td>
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<tr>
<td>Pour Point °C</td>
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<tr>
<td>Colour ASTM</td>
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<tr>
<td>Odour</td>
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<tr>
<td>Rust Test D-665</td>
<td>Pass</td>
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<td>A&amp;B 24 Hrs.</td>
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<td>Emulsion Test D-1401</td>
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<td>40-37-3, Minutes, Max</td>
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<tr>
<td>TAN mg KOH/gm</td>
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<tr>
<td>Air Release Min. @ 50°C</td>
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<tr>
<td>Vapour Density</td>
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<td>Vapour pressure kPa</td>
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<td>Hazardous Polymerisation</td>
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The material reacts violently with:

<table>
<thead>
<tr>
<th>Reacts with</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
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<tr>
<td>Water</td>
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<tr>
<td>Heat</td>
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<td>Strong Oxidizers</td>
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<td>Others</td>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 76
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
    Male > 25,000 mg/kg. B.Wt.
    Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 9.3
   50 °C: 47.8
   40 °C: 74 - 80
Pour Point °C: (-) 6
Colour ASTM: 3.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 25
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.2
Air Release Min. @ 50°C: 6.0 Max
Flash Point Deg C (COC): 220 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
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<td>-</td>
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</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 32 LP  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 99%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%  
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
   Male > 25,000 mg/kg. B.Wt.  
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 5.3
  50 °C : 20.8
  40 °C : 29 - 33
Pour Point °C : (-) 30
Colour ASTM : 1.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.2
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 46 LP
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 6.7
   50 °C: 29.6
   40 °C: 43 - 48
Pour Point °C: (-) 30
Colour ASTM: 2.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 20
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.2
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
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<td>may react at high temperatures</td>
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</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI
MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servoprime 32 T
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use : Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 200 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Coves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -  
Specific Gravity: 0.89  
Water Solubility: Insoluble  
K. Vis, cSt 100 °C: 5.3  
50 °C: 20.8  
40 °C: 29 - 33  
Pour Point °C: (-) 6  
Colour ASTM: 1.5 Max  
Odour: Slight  
Rust Test D-665: Pass  
A&B 24 Hrs.  
Emulsion Test D-1401: 20  
40-37-3, Minutes, Max  
TAN mg KOH/gm: 0.2  
FZG Rating Failure Stage: 8  
Flash Point Deg C (COC): 200 Min.  
Vapour Density: N.A.  
Evaporation Rate: N.A.  
Vapour pressure kPa: N.A.  
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998  
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servoprime 32 A  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil > 99%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%  
End Use : Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS :  None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 200 Min  
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) : In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.  
Cloves : Neoprene or nitrile rubber gloves recommended.  
Goggles : Chemical splash goggles.  
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 5.3
  50 °C : 20.8
  40 °C : 29 - 33
Pour Point °C : (-) 30
Colour ASTM : 1.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
  40-37-3, Minutes, Max
TAN mg KOH/gm : 0.2
FZG Rating Failure Stage : 10
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others
No  No  No  may react at high temperatures  -

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 46 T  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 99%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%  
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male: > 25,000 mg/kg. B.Wt.  
Female: > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 6.7
50 °C : 29.6
40 °C : 43 - 48
Pour Point °C : (-) 30
Colour ASTM : 2.0 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.2
FZG Rating Failure Stage : 8
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</thead>
<tbody>
<tr>
<td>Reacts</td>
<td>No</td>
<td>No</td>
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<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue : Feb., 1998
Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 57 T
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 7.7
  50 °C : 36.5
  40 °C : 55 - 60
Pour Point °C : (-) 6
Colour ASTM : 2.5 Max
Odour : Slight
Rust Test D-665 : Pass
A & B 24 Hrs.
Emulsion Test D-1401 : 20
  40-37-3, Minutes, Max
TAN mg KOH/gm : 0.2
FZG Rating Failure Stage : 8
Flash Point Deg C(COC) : 210 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
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<td>No</td>
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<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servoprime 68 T
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 99%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 1%
End Use: Lubrication of Turbine/Compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male: > 25,000 mg/kg. B.Wt.
Female: > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 8.5
   50 °C: 42.6
   40 °C: 64 - 72
Pour Point °C: (-) 6
Colour ASTM: 3.0 Max
zOdour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 25
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.2
FZG Rating Failure Stage: 8
Flash Point Deg C(COC): 210 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servomesh SP 68  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 97%wt.  
Additive package: 3% Wt. Max  
End Use: For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 204 Min  
Upper Flammable Limit %: -  
Lower Flammable Limit %: -  
Extinguishing Media: Foam, Dry Powder  
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.  
In rats female > 25,000 mg/Kg B wt.  
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.  
Eye Irritation: May be irritant  
Skin Irritation: ----  
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Call a physician. Do not induce vomiting.  
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended.
Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.92
Water Solubility : ----
K. Vis, cSt 100 °C : ----
40 °C : 64-72
Odor : Slight
Vapor Pressure, kPa : ----- 
TAN mg KOH/gm : 0.50 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 99

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servomesh SP 100
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 97% wt.
Additive package: 3% Wt. Max
End Use: For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 204 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
 Pick-up free liquid for recycle/disposal.
 Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>----</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.92</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>----</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>40 °C: 95-105</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Vapor Pressure, kPa</td>
<td>----</td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
<td>0.50 Max</td>
</tr>
<tr>
<td>Hazardous Polymerization</td>
<td>Does not occur</td>
</tr>
</tbody>
</table>

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 99         Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servomesh SP 150  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil 97% wt.  
Additive package : 3% Wt. Max  
End Use : For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C : 204 Min  
Upper Flammable Limit % : -  
Lower Flammable Limit % : -  
Extinguishing Media : Foam, Dry Powder  
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.  
In rats female > 25,000 mg/Kg B wt.  
Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B Wt.  
Eye Irritation : May be irritant  
Skin Irritation : ----  
Others : ----

EMERGENCY FIRST AID PROCEDURES:

Eyes : Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Call a physician. Do not induce vomiting.  
Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended.
Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----
Specific Gravity: 0.92
Water Solubility: ----
K. Vis, cSt 100 °C: ----
40 °C: 145-155
Odor: Slight
Vapor Pressure, kPa: ----
TAN mg KOH/gm: 0.50 Max
Hazardous Polymerization: Does not occur
The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue: Sep. 99
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servomesh SP 220
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 97%wt.
Additive package : 3% Wt. Max
End Use : For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 232 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
                           : In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B Wt.
Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.92

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 210 - 230

Odor: Slight

Vapor Pressure, kPa: ----

TAN mg KOH/gm: 0.50 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 99

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servomesh SP 257
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 97% wt.
Additive package: 3% Wt. Max
End Use: For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 232 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.92

Water Solubility : ----

K. Vis, cSt 100 °C : ----
40 °C : 250 - 280

Odour : Slight

Vapour Pressure, kPa : ------

TAN mg KOH/gm : 0.50 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue : Sep. 99

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servomesh SP 320
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 97% wt.
Additive package: 3% Wt. Max
End Use: For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 232 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.92

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 320 - 350

Odor: Slight

Vapor Pressure, kPa: ----

TAN mg KOH/gm: 0.50 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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</thead>
</table>

Date of Issue: Sep. 99

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name : Servomesh SP 460
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 97%wt.
Additive package : 3% Wt. Max
End Use : For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 232 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) :
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B Wt.

Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.92

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 420-500

Odor: Slight

Vapor Pressure, kPa: ----

TAN mg KOH/gm: 0.50 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 99

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servomesh SP 680
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 97% wt.
Additive package: 3% Wt. Max
End Use: For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 232 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.92

Water Solubility : ----

K. Vis, cSt 100 °C : ----
40 °C : 615-680

Odor : Slight

Vapor Pressure, kPa : ----- 

TAN mg KOH/gm : 0.50 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 99 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servomesh SP 1000
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 97%wt.
Additive package: 3% Wt. Max
End Use: For heavy duty enclosed gear systems

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.92

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 980 - 1050

Odor: Slight

Vapor Pressure, kPa: ----

TAN mg KOH/gm: 0.50 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 99

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servosystem 22  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 98%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%  
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 160 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.  
Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
**ENVIRONMENTAL PROTECTION:**

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

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**CHEMICAL AND PHYSICAL PROPERTIES:**

- **Boiling Point, °C:** -
- **Specific Gravity:** 0.89
- **Water Solubility:** Insoluble
- **K. Vis, cSt 100 °C:** 4.2
  - 50 °C: 15.2
  - 40 °C: 20 - 24
- **Pour Point °C:** (-) 6
- **Colour ASTM:** 2.5 Max
- **Odour:** Slight
- **Rust Test D-665:** Pass
- **A&B 24 Hrs.**
- **Emulsion Test D-1401:** 30
  - 40-37-3, Minutes, Max
- **TAN mg KOH/gm:** 1.0
- **Air Release Min. @ 50°C:** -
- **Flash Point Deg C(COC):** 160 Min.
- **Vapour Density:** N.A.
- **Evaporation Rate:** N.A.
- **Vapour pressure kPa:** N.A.
- **Hazardous Polymerisation:** No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

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Date of Issue: Feb., 1998  
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servosystem 32  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 98%  
Additive package (Antioxidant, Antimeal, Antifoam, PPD) = 2%  
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):  
In Rats  
Male: > 25,000 mg/kg. B.Wt.  
Female: > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 5.3
   50 °C : 20.8
   40 °C : 29 - 33
Pour Point °C : (-) 6
Colour ASTM : 2.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 30
   40-37-3, Minutes, Max
TAN mg KOH/gm : 1.0
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
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<td>Reaction</td>
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<td>-</td>
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</table>

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System 46  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 98%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%  
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
   Male: > 25,000 mg/kg. B.Wt.  
   Female: > 25,000 mg/kg. B.Wt.  
Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles.  
Others: Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Values</th>
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<tbody>
<tr>
<td>Boiling Point, °C</td>
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</tr>
<tr>
<td>Specific Gravity</td>
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</tr>
<tr>
<td>Water Solubility</td>
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<td>K. Vis, cSt 100 °C</td>
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<tr>
<td></td>
<td>50 °C : 29.5</td>
</tr>
<tr>
<td></td>
<td>40 °C : 44 - 48</td>
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<td>Pour Point °C</td>
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</tr>
<tr>
<td>Colour ASTM</td>
<td>3.0 Max</td>
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<tr>
<td>Odour</td>
<td>Slight</td>
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<td>Rust Test D-665</td>
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<tr>
<td>A&amp;B 24 Hrs.</td>
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</tr>
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<td>Emulsion Test D-1401</td>
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<td>40-37-3, Minutes, Max</td>
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<tr>
<td>TAN mg KOH/gm</td>
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</tr>
<tr>
<td>Air Release Min. @ 50°C</td>
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<tr>
<td>Flash Point Deg C(COC)</td>
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<td>Vapour Density</td>
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<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>Vapour pressure kPa</td>
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<tr>
<td>Hazardous Polymerisation</td>
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The material reacts violently with:

<table>
<thead>
<tr>
<th>Reacts With</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servosystem 57
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 210 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
    Male   > 25,000 mg/kg. B.Wt.
    Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 7.7
   50 °C: 36.5
   40 °C: 55 - 60
Pour Point °C: (-) 6
Colour ASTM: 3.5 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 30
40-37-3, Minutes, Max
TAN mg KOH/gm: 1.0
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 210 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reacts</td>
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<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servosystem 68
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Coves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 8.5
50 °C : 42.6
40 °C : 64 - 72
Pour Point °C : (-) 6
Colour ASTM : 3.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 30
40-37-3, Minutes, Max
TAN mg KOH/gm : 1.0
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 210 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
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</tbody>
</table>

Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servosystem 100
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10.8
50 °C : 60.4
40 °C : 95 - 105
Pour Point °C : (-) 6
Colour ASTM : 4.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 30
40-37-3, Minutes, Max
TAN mg KOH/gm : 1.0
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 210 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

Air     Water    Heat     Strong Oxidizers     Others
No      No       No       may react at high temperatures     -

Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System 150
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 230 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 14.1
50 °C: 88.0
40 °C: 145 - 155
Pour Point °C: (-) 6
Colour ASTM: 7.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 30
40-37-3, Minutes, Max
TAN mg KOH/gm: 1.0
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 230 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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<th>Air</th>
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<th>Strong Oxidizers</th>
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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servosystem 121
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 220 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 12.2
   50 °C : 72.2
   40 °C : 118 - 124
Pour Point °C : (-) 3
Colour ASTM : 6.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
TAN mg KOH/gm : 0.5
Flash Point Deg C(COC) : 220 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION :

Trade Name : Servosystem 176
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 230 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 15.6
  50 °C: 101.0
  40 °C: 170 - 180
Pour Point °C: (-) 3
Colour ASTM: 7.5 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
TAN mg KOH/gm: 0.5
Flash Point Deg C (COC): 230 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servosystem 220
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 230 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 18.1
50 °C: 126.0
40 °C: 210 - 230
Pour Point °C: (-) 3
Colour ASTM: 8.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
TAN mg KOH/gm: 0.5
Flash Point Deg C (COC): 230 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998
Supersedes Issue of: Nil
PRODUCT INFORMATION :

Trade Name : Servosystem 320
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 230 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 23.7
50 °C : 183.0
40 °C : 315 - 350
Pour Point °C : (-) 3
Colour ASTM : 8.0 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
TAN mg KOH/gm : 0.5
Flash Point Deg C(COC) : 230 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servosystem 460
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 260 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
  Male > 25,000 mg/kg. B.Wt.
  Female > 25,000 mg/kg. B.Wt.
Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 29.5
50 °C: 253.0
40 °C: 440 - 500
Pour Point °C: (-) 3
Colour ASTM: 8.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
TAN mg KOH/gm: 0.5
Flash Point Deg C (COC): 260 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Feb., 1998

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servohydrex TH 46
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil  92%wt.
Additive package :  8% Wt. Max
End Use : Recommended for low operating temperatures for excavators

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 200 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder
Special Firefighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
                      In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B Wt.
Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.
Other Instructions : -
SPECIAL PROTECTION INFORMATION:
Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.

ENVIRONMENTAL PROTECTION:
Water disposal method: Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:
Boiling Point, °C: ----
Specific Gravity: 0.89
Water Solubility: ----
K. Vis, cSt 100 °C: ----
40 °C: 43 - 48
Odour: Slight
Vapour Pressure, kPa: ----
TAN mg KOH/gm: 0.50 Max
Hazardous Polymerisation: Does not occur
The material reacts violently with:
Air Water Heat Strong Oxidizers Others

Date of Issue: Nov'97 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servohydrex 100
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 92% wt.
Additive package: 8% Wt. Max
End Use: Recommended for low operating temperatures for excavators

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 210 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Firefighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomitting.
Inhalation: Remove to fresh air. Seek medical aid.
Other Instructions: -
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.91

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 100 - 110

Odour: Slight

Vapour Pressure, kPa: ----

TAN mg KOH/gm: 0.50 Max

Hazardous Polymerisation: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Nov’97 Supersedes Issue of: Nil
**PRODUCT INFORMATION :**

**Trade Name : Servo System HLP 22**  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil > 98%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%  
End Use : Circulation systems of industrial and automotive equipment

**HAZARDOUS INGREDIENTS** : None

**FIRE AND EXPLOSION HAZARDS** :

Flash Point, °C, COC : 160 Min  
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

**HEALTH HAZARD DATA** :

Acute oral Toxicity (LD-50) : In Rats  
Male > 25,000 mg/kg. B.Wt.  
Female > 25,000 mg/kg. B.Wt.  

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

**EMERGENCY FIRST AID PROCEDURES** :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation : Remove to fresh air. Seek medical aid.

**SPECIAL PROTECTION INFORMATION** :

Ventilation : Mechanical ventilation recommended.  
Coves : Neoprene or nitrile rubber gloves recommended.  
Goggles : Chemical splash goggles.  
Others : Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 4.2
  50 °C: 15.2
  40 °C: 20 - 24
Pour Point °C: (-) 6
Colour ASTM: 2.5 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 20
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.5
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 160 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Sep, 1999

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System HLP 32
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 5.3
50 °C: 20.8
40 °C: 29 - 33
Pour Point °C: (-) 6
Colour ASTM: 2.5 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 20
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.5
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 190 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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Date of Issue: Sep, 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System HLP 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 6.6
    50 °C: 29.5
    40 °C: 44 - 48
Pour Point °C: (-) 6
Colour ASTM: 3.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 20
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.5
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 200 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
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<tbody>
<tr>
<td>No</td>
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Date of Issue: Sep, 1999

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System HLP 68  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 98%  
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%  
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:
Flash Point, °C, COC: 210 Min  
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide  
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats  
Male: > 25,000 mg/kg. B.Wt.  
Female: > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Cloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles. Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 8.5
   50 °C : 42.6
   40 °C : 64 - 72
Pour Point °C : (-) 6
Colour ASTM : 3.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 25
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.5
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 210 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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<th>Heat</th>
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Date of Issue: Sep, 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System HLP 100
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 210 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Closes: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 10.8
   50 °C : 60.4
   40 °C : 95 - 105
Pour Point °C : (-) 6
Colour ASTM : 4.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 25
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.5
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 210 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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Date of Issue: Sep, 1999
PRODUCT INFORMATION:

Trade Name: Servo System HLP 150
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 230 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
**ENVIRONMENTAL PROTECTION:**

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

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**CHEMICAL AND PHYSICAL PROPERTIES:**

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<tr>
<td>Specific Gravity</td>
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<td>TAN mg KOH/gm</td>
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<tr>
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<td>Heat</td>
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Date of Issue: Sep, 1999

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, HEAD OFFICE                      MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo System HLP (N) 22
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC       : 160 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled
with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
   Male     > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 4.2
  50 °C : 15.2
  40 °C : 20 - 24
Pour Point °C : (-) 6
Colour ASTM : 2.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.5
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 160 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
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</thead>
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Date of Issue: Sep, 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System HLP (N) 32
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 190 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 5.3
      50 °C : 20.8
      40 °C : 29 - 33
Pour Point °C : (-) 6
Colour ASTM : 2.5 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.5
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 190 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
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Date of Issue: Sep, 1999

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System HLP (N) 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In Rats
   Male > 25,000 mg/kg. B.Wt.
   Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50): > 5,000 mg/litre

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 6.6
   50 °C : 29.5
   40 °C : 44 - 48
Pour Point °C : (-) 6
Colour ASTM : 3.0 Max
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 20
40-37-3, Minutes, Max
TAN mg KOH/gm : 0.5
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

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<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
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Date of Issue: Sep, 1999

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, HEAD OFFICE                  MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo System HLP (N) 68
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS :   None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC       : 210 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
                           Male > 25,000 mg/kg. B.Wt.
                           Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 8.5
   50 °C: 42.6
   40 °C: 64 - 72
Pour Point °C: (-) 6
Colour ASTM: 3.5 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 25
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.5
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 210 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

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<tr>
<th></th>
<th>Air</th>
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Date of Issue: Sep, 1999
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, HEAD OFFICE                      MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Servo System HLP (N) 100
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C, COC : 210 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 10.8
   50 °C: 60.4
   40 °C: 95 - 105
Pour Point °C: (-) 6
Colour ASTM: 4.5 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 25
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.5
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 210 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Sep, 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servo System HLP (N) 150
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use : Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC : 230 Min
Extinguishing Media : Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures : To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) : In Rats
Male > 25,000 mg/kg. B.Wt.
Female > 25,000 mg/kg. B.Wt.

Toxicity to fresh water fish (LC-50) : > 5,000 mg/litre

Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.
Covers : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles.
Others : Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: -
Specific Gravity: 0.89
Water Solubility: Insoluble
K. Vis, cSt 100 °C: 14.1
    50 °C: 88.0
    40 °C: 145 - 155
Pour Point °C: (-) 6
Colour ASTM: 7.0 Max
Odour: Slight
Rust Test D-665: Pass
A&B 24 Hrs.
Emulsion Test D-1401: 30
40-37-3, Minutes, Max
TAN mg KOH/gm: 0.5
Air Release Min. @ 50°C: -
Flash Point Deg C(COC): 230 Min.
Vapour Density: N.A.
Evaporation Rate: N.A.
Vapour pressure kPa: N.A.
Hazardous Polymerisation: No

The material reacts violently with:

Air   Water   Heat   Strong Oxidisers
Others

No   No   No   may react at high temperatures -

Date of Issue: Sep, 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servo System BD 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 98%
Additive package (Antioxidant, Antiwear, Antifoam, PPD) = 2%
End Use: Circulation systems of industrial and automotive equipment

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C, COC: 200 Min
Extinguishing Media: Foam, Dry Chemical Powder, Carbon dioxide
Special Fire Fighting Procedures: To control big fires, exposed containers should be cooled with the help of water. Use protective appliances, Mask, etc.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): N. A.
Toxicity to fresh water fish (LC-50):
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Do not induce vomiting. Give water, liquid paraffin, olive oil or vegetable oil.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Colves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles.
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local Laws.

Procedure in case of Breakage/Leakage: Wear rubber boots, gloves, apron and goggles. Pick-up free liquid for recycle/disposal. Absorb small amount on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : -
Specific Gravity : 0.89
Water Solubility : Insoluble
K. Vis, cSt 100 °C : 8.6
    40 °C : 44 - 48
Pour Point °C : (-)15
Biodegradability
CEC-L-33-A-93
    % Min: 90
Odour : Slight
Rust Test D-665 : Pass
A&B 24 Hrs.
Emulsion Test D-1401 : 15
40-37-3, Minutes, Max
TAN mg KOH/gm : 1.0
Air Release Min. @ 50°C : -
Flash Point Deg C(COC) : 200 Min.
Vapour Density : N.A.
Evaporation Rate : N.A.
Vapour pressure kPa : N.A.
Hazardous Polymerisation : No

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
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<tbody>
<tr>
<td>No</td>
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<td>No</td>
<td>may react at high temperatures</td>
<td>-</td>
</tr>
</tbody>
</table>

Date of Issue: Sep, 1999

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz 12
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 140 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
- In rats male > 25,000 mg/Kg B wt.
- In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>----</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.87</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>----</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>----</td>
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<tr>
<td></td>
<td>40 °C</td>
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<td>12 - 14</td>
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<tr>
<td>Odor</td>
<td>Slight</td>
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<tr>
<td>Vapor Pressure, kPa</td>
<td>---</td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
<td>0.05 Max</td>
</tr>
</tbody>
</table>

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th>Reacts Violently With</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz 22
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100% wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 144 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----
Specific Gravity: 0.87
Water Solubility: ----
K. Vis, cSt 100 °C: ----
  40 °C: 20 - 24
Odor: Slight
Vapor Pressure, kPa: ---
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 1999 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz 32  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 100%wt.  
Additive package: Nil (% wt. Max)  
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 154 Min  
Extinguishing Media: Foam, Dry Powder  
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):  
In rats male > 25,000 mg/Kg B wt.  
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Call a physician. Do not induce vomiting.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Gloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles recommended.  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
40 °C : 33 - 35
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:
Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 1999 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 160 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
                   40 °C : 43 - 46
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
<tbody>
<tr>
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</tbody>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI
MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servofriz 68
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 170 Min
Extinguishing Media: Foam, Dry Powder
Special Firefighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
   40 °C : 63 - 65
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz 100
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 200 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:
Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>----</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.87</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>----</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>40 °C: 95 – 100</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Vapor Pressure, kPa</td>
<td>---</td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
<td>0.05 Max</td>
</tr>
</tbody>
</table>

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th>Reactant</th>
<th>Reaction</th>
</tr>
</thead>
<tbody>
<tr>
<td>Air</td>
<td></td>
</tr>
<tr>
<td>Water</td>
<td></td>
</tr>
<tr>
<td>Heat</td>
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</tr>
<tr>
<td>Strong Oxidizers</td>
<td></td>
</tr>
<tr>
<td>Others</td>
<td></td>
</tr>
</tbody>
</table>

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz S 22  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 100%wt.  
Additive package: Nil (% wt. Max)  
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 144 Min  
Extinguishing Media: Foam, Dry Powder  
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):  
In rats male: > 25,000 mg/Kg B wt.  
In rats female: > 25,000 mg/Kg B wt.  
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.  
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Call a physician. Do not induce vomiting.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Gloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles recommended  
Others: Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
40 °C : 20 - 24
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz S 32
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:
Flash Point, °C: 154 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:
Acute oral Toxicity (LD-50) :
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) :
> 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:
Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:
Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
  40 °C : 33 - 35
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
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<tbody>
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</tbody>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz S 46  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil 100%wt.  
Additive package: Nil (% wt. Max)  
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 160 Min  
Extinguishing Media: Foam, Dry Powder  
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):  
In rats male > 25,000 mg/Kg B wt.  
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Call a physician. Do not induce vomiting.  
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.  
Gloves: Neoprene or nitrile rubber gloves recommended.  
Goggles: Chemical splash goggles recommended  
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>----</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.87</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>----</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>----</td>
</tr>
<tr>
<td>40 °C</td>
<td>43 - 46</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Vapor Pressure, kPa</td>
<td>---</td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
<td>0.05 Max</td>
</tr>
</tbody>
</table>

Hazardous Polymerization: Does not occur.

The material reacts violently with:

<table>
<thead>
<tr>
<th>Reagent</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep. 1999

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz S 57
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100% wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:
Flash Point, °C: 164 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
40 °C : 54 - 60
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue : Sep. 1999  Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servofriz S 68
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100% wt.
Additive package: Nil (% wt. Max)
End Use: For all conventional refrigeration compressor

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 170 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----
Specific Gravity: 0.87
Water Solubility: ----
K. Vis, cSt 100 °C: ----
40 °C: 63 - 65
Odor: Slight
Vapor Pressure, kPa: ---
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz F 32
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100% wt.
Additive package: Nil (% wt. Max)
End Use: For all Hermetically sealed refrigeration compressors.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 158 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
40 °C : 33 - 35
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz F 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all Hermetically sealed refrigeration compressors.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:
Flash Point, °C: 160 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----
Specific Gravity: 0.87
Water Solubility: ----
K. Vis, cSt 100 °C: ----
40 °C: 43 - 46
Odor: Slight
Vapor Pressure, kPa: ---
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servofriz F 57
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: Nil (% wt. Max)
End Use: For all Hermetically sealed refrigeration compressors.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 168 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boiling Point, °C</td>
<td>----</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>0.87</td>
</tr>
<tr>
<td>Water Solubility</td>
<td>----</td>
</tr>
<tr>
<td>K. Vis, cSt 100 °C</td>
<td>----</td>
</tr>
<tr>
<td></td>
<td>40 °C: 54 - 60</td>
</tr>
<tr>
<td>Odor</td>
<td>Slight</td>
</tr>
<tr>
<td>Vapor Pressure, kPa</td>
<td>---</td>
</tr>
<tr>
<td>TAN mg KOH/gm</td>
<td>0.05 Max</td>
</tr>
</tbody>
</table>

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th>Reactant</th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
**PRODUCT INFORMATION:**

**Trade Name:** Servofriz NH 32  
**Name of Manufacturer:** Indian Oil Corporation Ltd.  
**Chemical Nature/Composition:** Mineral oil 100% wt.  
**Additive package:** Nil (% wt. Max)  
**End Use:** For all ammonia refrigeration compressors.

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**HAZARDOUS INGREDIENTS:** None

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**FIRE AND EXPLOSION HAZARDS:**

- **Flash Point, °C:** 150 Min  
- **Extinguishing Media:** Foam, Dry Powder  
- **Special Fire fighting Procedures:** To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

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**HEALTH HAZARD DATA:**

- **Acute oral Toxicity (LD-50):**  
  - In rats male > 25,000 mg/Kg B wt.  
  - In rats female > 25,000 mg/Kg B wt.  
- **Toxicity to fresh water fish (LC-50):** > 50,000 mg/Kg B wt.  
- **Eye Irritation:** May be irritant

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**EMERGENCY FIRST AID PROCEDURES:**

- **Eyes:** Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
- **Skin:** Wash with soap and water.  
- **Ingestion:** Call a physician. Do not induce vomiting.  
- **Inhalation:** Remove to fresh air. Seek medical aid.

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**SPECIAL PROTECTION INFORMATION:**

- **Ventilation:** Mechanical ventilation recommended.  
- **Gloves:** Neoprene or nitrile rubber gloves recommended.  
- **Goggles:** Chemical splash goggles recommended  
- **Others:** Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----
Specific Gravity : 0.87
Water Solubility : ----
K. Vis, cSt 100 °C : ----
40 °C : 29-33
Odor : Slight
Vapor Pressure, kPa : ---
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur
The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue : Sep. 1999  Supersedes Issue of : Nil
SERVO® MATERIAL SAFETY DATA SHEET

IndianOil

INDUSTRIAL

AUTO

GREASES

Turbine Oils
Hydraulic Oils
Industrial Gear Oils
Refrigeration Compressor Oils
Stream Cylinder Oils
Open Gear Compounds
Others

Servocyl C 460
Servocyl M 680
Servocyl C 680
Servocyl M 1000
Servocyl C 800
Servocyl M 1500
PRODUCT INFORMATION :

Trade Name : Servocyl C 460
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 99%wt.
Additive package : 1% wt. Max
End Use : Steam engines operating under wet conditions

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 280 Min
Extinguishing Media : Foam, Dry Powder
Special Firefighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B wt.
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION :

Ventilation : Mechanical ventilation recommended.
Gloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles recommended
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance with Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Specific Gravity : 0.92
K. Vis, cSt 100 °C : 29.1
   40 °C : 460 - 480
Odor : Slight
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:
Air  Water  Heat  Strong Oxidizers  Others

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servocyl C 680
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99%wt.
Additive package: 1% wt. Max
End Use: Steam engines operating under wet conditions

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Extinguishing Media: Foam, Dry Powder
Special Firefighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Specific Gravity : 0.92
K. Vis, cSt 100 °C : 35.8
40 °C : 660 - 700
Odor : Slight
TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:
Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 1999 Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI
MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name : Servocyl C 800
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 99%wt.
Additive package : 1% wt. Max
End Use : Steam engines operating under wet conditions

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C : 280 Min
Extinguishing Media : Foam, Dry Powder
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) :
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B wt.
Eye Irritation : May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes : Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.
Gloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles recommended
Others : Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Specific Gravity: 0.92

K. Vis, cSt 100 °C: 39.6
   40 °C: 780 - 820

Odor: Slight

TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air       Water       Heat       Strong Oxidizers       Others

Date of Issue: Sep. 1999

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servocyl M 680
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99%wt.
Additive package: 1% wt. Max
End Use: Steam engines operating under wet conditions

HAZARDOUS INGREDIENTS:
None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIROMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Specific Gravity: 0.92
K. Vis, cSt 100 °C: 35.8
40 °C: 660 - 700
Odor: Slight
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:
Air    Water    Heat    Strong Oxidizers    Others

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servocyl M 1000
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99%wt.
Additive package: 1% wt. Max
End Use: Steam engines operating under wet conditions

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt. In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Specific Gravity: 0.92
K. Vis, cSt 100 °C: 44.0
40 °C: 980 - 1050
Odor: Slight
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep. 1999 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servocyl M 1500
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99% wt.
Additive package: 1% wt. Max
End Use: Steam engines operating under wet conditions

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.

SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Gloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended
Others: Use apron also.
ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Specific Gravity: 0.92
K. Vis, cSt 100 °C: 35.8
40 °C: 1450 - 1550
Odor: Slight
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:
Air        Water        Heat        Strong Oxidizers        Others

Date of Issue: Sep. 1999     Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servocoat 110
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 99%wt.
Additive package : 1% Wt. Max
End Use : Lubrication of kiln tyres operating at high temperatures in cement plants.

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 250 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder

Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt. 
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B Wt.

Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin : Wash with soap and water.

Ingestion : Call a physician. Do not induce vomiting.

Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended.

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.89

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 80 - 120

Odor : Slight

Vapor Pressure, kPa : ----

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with:

Air    Water    Heat    Strong Oxidizers    Others

Date of Issue : Sep'99

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servocoat 120
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99% wt.
Additive package: 1% Wt. Max
End Use: Lubrication of kiln tyres operating at high temperatures in cement plants.

HAZARDOUS INGREDIENTS:
None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 250 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.89

Water Solubility: ----

K. Vis, cSt 100 °C: ----
40 °C: 200 - 250

Odor: Slight

Vapor Pressure, kPa: ----

TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air      Water      Heat      Strong Oxidizers      Others

Date of Issue: Sep'99
Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name : Servocoat 140
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 99%wt.
Additive package : 1% Wt. Max
End Use : Lubrication of kiln tyres operating at high temperatures in cement plants.

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 280 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
                           : In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B Wt.
Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended.

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.89

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 400 - 550

Odor : Slight

Vapor Pressure, kPa : ----

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

Air Water Heat Strong Oxidisers Others

Date of Issue : Sep’ 1999

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servocoat 170
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99% wt.
Additive package: 1% Wt. Max
End Use: Lubrication of kiln tyres operating at high temperatures in cement plants.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
**SPECIAL PROTECTION INFORMATION:**

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

**ENVIRONMENTAL PROTECTION:**

Water disposal method : Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

**CHEMICAL AND PHYSICAL PROPERTIES :**

Boiling Point, °C : ----

Specific Gravity : 0.89

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 710 - 760

Odor : Slight

Vapor Pressure, kPa : ----- 

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

Air Water Heat Strong Oxidisers Others

Date of Issue : Sep’ 1999 Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servocoat 190
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99%wt.
Additive package: 1% Wt. Max
End Use: Lubrication of kiln tyres operating at high temperatures in cement plants.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
**Trade Name** : Servocoat 190

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**SPECIAL PROTECTION INFORMATION** :

**Ventilation** : Mechanical ventilation recommended.

**Cloves** : Neoprene or nitrile rubber gloves recommended.

**Goggles** : Chemical splash goggles recommended

**Others** : Use apron also.

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**ENVIRONMENTAL PROTECTION** :

**Water disposal method** : Disposal should be made in compliance Federal, State and Local laws

**Procedure in case of Breakage/Leakage** : Wear rubber shoes, gloves and goggles.

  - Pick-up free liquid for recycle/disposal.
  - Absorb small amounts on inert material like clothes, sand etc.

---

**CHEMICAL AND PHYSICAL PROPERTIES** :

**Boiling Point, °C** : 

**Specific Gravity** : 0.89

**Water Solubility** : 

**K. Vis, cSt 100 °C** : 

  - 40 °C : 900 - 1100

**Odor** : Slight

**Vapor Pressure, kPa** : 

**TAN mg KOH/gm** : 0.05 Max

**Hazardous Polymerization** : Does not occur

**The material reacts violently with** : 

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
</tr>
</thead>
</table>

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**Date of Issue : Sep’ 1999**

**Supersedes Issue of : Nil**
PRODUCT INFORMATION:

Trade Name: Servocoat 170 T
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 99% wt.
Additive package: 1% Wt. Max
End Use: Lubrication of kiln tyres operating at high temperatures in cement plants.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 280 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended.

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles.
  Pick-up free liquid for recycle/disposal.
  Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.89

Water Solubility : ----

K. Vis, cSt 100 °C : ----
  40 °C : 710 - 760

Odor : Slight

Vapor Pressure, kPa : ----

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

Air  Water  Heat  Strong Oxidisers  Others

Date of Issue : Sep’ 1999

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 22
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package:
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C : 150 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) :
  In rats male  > 25,000 mg/Kg B wt.
  In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) :
  > 50,000 mg/Kg B wt.

Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.86

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 19 - 22

Odor: Slight

Vapor Pressure, kPa: ---

TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidisers Others

Date of Issue: Sep. 1999

Supersedes Issue of: Nil
**PRODUCT INFORMATION:**

**Trade Name:** Lubrex 32  
**Name of Manufacturer:** Indian Oil Corporation Ltd.  
**Chemical Nature/Composition:** Mineral oil 100%wt.  
**Additive package:**  
**End Use:** Flushing of automotive and industrial lubricants

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**HAZARDOUS INGREDIENTS:** None

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**FIRE AND EXPLOSION HAZARDS:**

- **Flash Point, °C:** 150 Min  
- **Upper Flammable Limit %:** -  
- **Lower Flammable Limit %:** -  
- **Extinguishing Media:** Foam, Dry Powder  
- **Special Fire fighting Procedures:** To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

---

**HEALTH HAZARD DATA:**

- **Acute oral Toxicity (LD-50):**  
  - In rats male: > 25,000 mg/Kg B wt.  
  - In rats female: > 25,000 mg/Kg B wt.  
- **Toxicity to fresh water fish (LC-50):** > 50,000 mg/Kg B wt.  
- **Eye Irritation:** May be irritant  
- **Skin Irritation:** ----  
- **Others:** ----

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**EMERGENCY FIRST AID PROCEDURES:**

- **Eyes:** Flush with fresh water for atleast 15 Minutes. Seek medical aid.  
- **Skin:** Wash with soap and water.  
- **Ingestion:** Call a physician. Do not induce vomiting.  
- **Inhalation:** Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----
Specific Gravity: 0.86
Water Solubility: ----
K. Vis, cSt 100 °C: ----
40 °C: 29 - 33
Odor: Slight
Vapor Pressure, kPa: ---
TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur
The material reacts violently with:

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<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
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</thead>
</table>

Date of Issue: Sep. 1999
Supersedes Issue of: Nil
INTEGRIN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Lubrex 46
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package:
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 160 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt. In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for atleast 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.86

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 43 - 48

Odor : Slight

Vapor Pressure, kPa : ---

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with:

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<th></th>
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<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
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<td>Date of Issue</td>
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</table>

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 57
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package:
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 160 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.86

Water Solubility: ----

K. Vis, cSt 100 °C: ----

40 °C: 54 - 60

Odor: Slight

Vapor Pressure, kPa: ---

TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 68
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100% wt.
Additive package: 
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 160 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.86

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 64 - 72

Odor : Slight

Vapor Pressure, kPa : ---

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air  Water  Heat  Strong Oxidisers  Others

Date of Issue: Sep. 1999  Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 100
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 100%wt.
Additive package :
End Use : Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 170 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B wt.

Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin : Wash with soap and water.

Ingestion : Call a physician. Do not induce vomiting.

Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.

Pick-up free liquid for recycle/disposal.

Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.86

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 95 - 105

Odor : Slight

Vapor Pressure, kPa : ---

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep. 1999

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION :

Trade Name : Lubrex 150
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil 100%wt.
Additive package
End Use : Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 200 Min
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Powder
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B wt.
Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin : Wash with soap and water.
Ingestion : Call a physician. Do not induce vomiting.
Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.89

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 145 - 155

Odor : Slight

Vapor Pressure, kPa : ---

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

Air Water Heat Strong Oxidisers Others

Date of Issue : Sep. 1999 Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 220
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package: 
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 220 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
**SPECIAL PROTECTION INFORMATION:**

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

**ENVIRONMENTAL PROTECTION :**

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

**CHEMICAL AND PHYSICAL PROPERTIES :**

Boiling Point, °C : ----

Specific Gravity : 0.86

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 215 - 235

Odor : Slight

Vapor Pressure, kPa : ---

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidisers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue : Sep. 1999

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 320
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package:
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 220 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.
Skin: Wash with soap and water.
Ingestion: Call a physician. Do not induce vomiting.
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended.

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles.

Pick-up free liquid for recycle/disposal.

Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C : ----

Specific Gravity : 0.91

Water Solubility : ----

K. Vis, cSt 100 °C : ----

40 °C : 288 - 330

Odour : Slight

Vapour Pressure, kPa : ---

TAN mg KOH/gm : 0.05 Max

Hazardous Polymerization : Does not occur

The material reacts violently with :

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue : Sep. 1999

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Lubrex 460
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil 100%wt.
Additive package:
End Use: Flushing of automotive and industrial lubricants

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: 240 Min
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50) :
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) : > 50,000 mg/Kg B wt.

Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Boiling Point, °C: ----

Specific Gravity: 0.92

Water Solubility: ----

K. Vis, cSt 100 °C: ----
40 °C: 425 - 465

Odor: Slight

Vapor Pressure, kPa: ---

TAN mg KOH/gm: 0.05 Max

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidisers Others

Date of Issue: Sep. 1999 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servogem 2
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 85% wt., Lithium Soap Type
Additive package: (Antioxidant, Antirust) = 1.0 - 3% Wt. Max
Soap % Wt. = 9 - 12
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C:
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Chemical Powder, CO2
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 5000 mg/litre

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 265 – 295

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 10 - 13

Odor : Slight

Drop Point : 180 Min

Color ASTM : Brown

Hazardous Polymerization : Does not occur

The material reacts violently with :

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue : Sep‘99

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servogem 3  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 83%wt., Lithium Soap Type  
Additive package: (Antioxidant, Antirust) = 1.0 - 3% Wt. Max  
Soap % Wt. = 13 - 16  
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C:  
Upper Flammable Limit %: -  
Lower Flammable Limit %: -  
Extinguishing Media: Foam, Dry Chemical Powder, CO2  
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):  
In rats male > 25,000 mg/Kg B wt.  
In rats female > 25,000 mg/Kg B wt.  
Toxicity to fresh water fish (LC-50):  > 5000 mg/litre  
Eye Irritation: May be irritant  
Skin Irritation: ----  
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Call a physician. Do not induce vomiting.  
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 220 – 250

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 10 - 13

Odor : Slight

Drop Point : 180 Min

Color ASTM : Brown

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep’99

Supersedes Issue of: Nil
INDIAN OIL CORPORATION LTD
MARKETING DIVISION, MUMBAI

MATERIAL SAFETY DATA SHEET

PRODUCT INFORMATION:

Trade Name: Servogem EP 00
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 85%wt., Lithium Soap Type
Additive package: (Antioxidant, Antirust) = 1.0 - 5% Wt. Max
Soap % Wt. = 8 - 11
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C:
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Chemical Powder, CO2
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 5000 mg/litre

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 400 – 430

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 13 - 16

Odor : Slight

Drop Point : 170 Min

Color ASTM : Brown

Hazardous Polymerization: Does not occur

The material reacts violently with:

<table>
<thead>
<tr>
<th></th>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue: Sep’99

Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servogem EP 0
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 82%wt., Lithium Soap Type
Additive package: (Antioxidant, Antirust) = 1.0 - 5% Wt. Max
Soap % Wt. = 10 – 13
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C :
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Chemical Powder, CO2
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 5000 mg/litre

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended.

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 355 – 385

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 13 - 16

Odor : Slight

Drop Point : 180 Min

Color ASTM : Brown

Hazardous Polymerization: Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep’99

Supersedes Issue of: Nil
PRODUCT INFORMATION :

Trade Name : Servogem EP 1
Name of Manufacturer : Indian Oil Corporation Ltd.
Chemical Nature/Composition : Mineral oil > 80%wt., Lithium Soap Type
Additive package : (Antioxidant, Antirust) = 1.0 - 5% Wt. Max
Soap % Wt. = 10 - 13
End Use : General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C :
Upper Flammable Limit % : -
Lower Flammable Limit % : -
Extinguishing Media : Foam, Dry Chemical Powder, CO2
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.
Toxicity to fresh water fish (LC-50) : > 5000 mg/litre

Eye Irritation : May be irritant
Skin Irritation : ----
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin : Wash with soap and water.

Ingestion : Call a physician. Do not induce vomiting.

Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Clovos : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 310 – 340

Boiling Point, °C  :  ----
Specific Gravity  :  ----
Water Solubility  :  Insoluble
Base Oil K. Vis, cSt 100 °C  :  13 - 16
Odor  :  Slight
Drop Point  :  180 Min
Color ASTM  :  Brown
Hazardous Polymerization : Does not occur

The material reacts violently with :

Air  Water  Heat  Strong Oxidizers  Others

Date of Issue : Sep ’99

Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servogem EP 2
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil >80%wt., Lithium Soap Type
Additive package: (Antioxidant, Antirust) = 1.0 - 5% Wt. Max
Soap % Wt. = 11 - 14
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C:
Upper Flammable Limit %:
Lower Flammable Limit %:
Extinguishing Media: Foam, Dry Chemical Powder, CO2
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male > 25,000 mg/Kg B wt.
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50):
> 5000 mg/litre

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
**SPECIAL PROTECTION INFORMATION:**

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

**ENVIRONMENTAL PROTECTION**:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

**CHEMICAL AND PHYSICAL PROPERTIES**:

Worked Penetration @ 25 Deg C 60 X = 265 – 295

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 13 - 16

Odor : Slight

Drop Point : 180 Min

Color ASTM : Brown

Hazardous Polymerization : Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue : Sep'99

Supersedes Issue of : Nil
PRODUCT INFORMATION :

Trade Name : Servogem EP 2(S)  
Name of Manufacturer : Indian Oil Corporation Ltd.  
Chemical Nature/Composition : Mineral oil >80%wt., Lithium Soap Type  
Additive package : (Antioxidant, Antirust) = 1.0 - 5% Wt. Max  
Soap % Wt. = 11 - 14  
End Use : General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS : None

FIRE AND EXPLOSION HAZARDS :

Flash Point, °C : 
Upper Flammable Limit % : -  
Lower Flammable Limit % : -  
Extinguishing Media : Foam, Dry Chemical Powder, CO2  
Special Fire fighting Procedures : To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA :

Acute oral Toxicity (LD-50) : In rats male > 25,000 mg/Kg B wt.  
In rats female > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50) : > 5000 mg/litre  
Eye Irritation : May be irritant  
Skin Irritation : ----  
Others : ----

EMERGENCY FIRST AID PROCEDURES :

Eyes : Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin : Wash with soap and water.  
Ingestion : Call a physician. Do not induce vomiting.  
Inhalation : Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.

Cloves: Neoprene or nitrile rubber gloves recommended.

Goggles: Chemical splash goggles recommended

Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 265 – 280

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 13 - 16

Odor : Slight

Drop Point : 180 Min

Color ASTM : Brown

Hazardous Polymerization : Does not occur

The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep’99 Supersedes Issue of: Nil
PRODUCT INFORMATION:

Trade Name: Servogem HT
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 85% wt.
Additive package: <1%
Organo Clay: <15%
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: -
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50):
In rats male: > 25,000 mg/Kg B wt.
In rats female: > 25,000 mg/Kg B wt.

Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.

Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.
Cloves : Neoprene or nitrile rubber gloves recommended.
Goggles : Chemical splash goggles recommended
Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws
Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 265 – 295
Boiling Point, °C : ----- 
Specific Gravity : ----- 
Water Solubility : Insoluble
Base Oil K. Vis, cSt 100 °C : 30 - 35
Odor : Slight
Drop Point : 260 Min
Color ASTM : Brown
Hazardous Polymerization : Does not occur
The material reacts violently with :

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue : Sep’99 Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servogem HTXX  
Name of Manufacturer: Indian Oil Corporation Ltd.  
Chemical Nature/Composition: Mineral oil > 82%wt.  
Additive package: (Organic Clay, ) >18%  
End Use: General Equipment & Machinery Grease

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: -  
Upper Flammable Limit %: -  
Lower Flammable Limit %: -  
Extinguishing Media: Foam, Dry Powder  
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): In rats male > 25,000 mg/Kg B wt.  
                      In rats female > 25,000 mg/Kg B wt.  
Toxicity to fresh water fish (LC-50): > 50,000 mg/Kg B Wt.  
Eye Irritation: May be irritant  
Skin Irritation: ----  
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.  
Skin: Wash with soap and water.  
Ingestion: Call a physician. Do not induce vomiting.  
Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation : Mechanical ventilation recommended.

Cloves : Neoprene or nitrile rubber gloves recommended.

Goggles : Chemical splash goggles recommended

Others : Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method : Disposal should be made in compliance Federal, State and Local laws

Procedure in case of Breakage/Leakage : Wear rubber shoes, gloves and goggles. Pick-up free liquid for recycle/disposal. Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 265 – 295

Boiling Point, °C : ----

Specific Gravity : ----

Water Solubility : Insoluble

Base Oil K. Vis, cSt 100 °C : 30 - 35

Odor : Slight

Drop Point : 260 Min

Color ASTM : Brown

Hazardous Polymerization : Does not occur

The material reacts violently with :

<table>
<thead>
<tr>
<th>Air</th>
<th>Water</th>
<th>Heat</th>
<th>Strong Oxidizers</th>
<th>Others</th>
</tr>
</thead>
</table>

Date of Issue : Sep’99 Supersedes Issue of : Nil
PRODUCT INFORMATION:

Trade Name: Servo Grease Molex
Name of Manufacturer: Indian Oil Corporation Ltd.
Chemical Nature/Composition: Mineral oil > 85%wt.
Additive package: (Organic Clay, ) 2-3%
Soap % Wt. = 12 – 15%
End Use: Automotive Lubricating Grease.

HAZARDOUS INGREDIENTS: None

FIRE AND EXPLOSION HAZARDS:

Flash Point, °C: -
Upper Flammable Limit %: -
Lower Flammable Limit %: -
Extinguishing Media: Foam, Dry Powder
Special Fire fighting Procedures: To control big fires, exposed containers should be made cool by spraying water. Use protective appliances.

HEALTH HAZARD DATA:

Acute oral Toxicity (LD-50): NA.
Toxicity to fresh water fish (LC-50): NA
Eye Irritation: May be irritant
Skin Irritation: ----
Others: ----

EMERGENCY FIRST AID PROCEDURES:

Eyes: Flush with fresh water for at least 15 Minutes. Seek medical aid.

Skin: Wash with soap and water.

Ingestion: Call a physician. Do not induce vomiting.

Inhalation: Remove to fresh air. Seek medical aid.
SPECIAL PROTECTION INFORMATION:

Ventilation: Mechanical ventilation recommended.
Cloves: Neoprene or nitrile rubber gloves recommended.
Goggles: Chemical splash goggles recommended.
Others: Use apron also.

ENVIRONMENTAL PROTECTION:

Water disposal method: Disposal should be made in compliance Federal, State and Local laws.
Procedure in case of Breakage/Leakage: Wear rubber shoes, gloves and goggles.
Pick-up free liquid for recycle/disposal.
Absorb small amounts on inert material like clothes, sand etc.

CHEMICAL AND PHYSICAL PROPERTIES:

Worked Penetration @ 25 Deg C 60 X = 265 – 295
Boiling Point, °C: ----
Specific Gravity: ----
Water Solubility: Insoluble
Base Oil K. Vis, cSt 100 °C: 30 - 35
Odor: Slight
Drop Point: 192 Min
Color ASTM: Gray Black
Hazardous Polymerization: Does not occur
The material reacts violently with:

Air Water Heat Strong Oxidizers Others

Date of Issue: Sep’99 Supersedes Issue of: Nil