INDUSTRIAL OIL

# Semi Synthetic Cutting Oil

Safety Data Sheet

## 1. IDENTIFICATION OF THE PRODUCT AND COMPANY

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| **Product name** | Semi Synthetic Cutting Oil |
| **Recommended use** | Water-miscible metalworking fluid concentrate (dilute before use) |
| **Restrictions on use** | Use only for the purposes stated on the label and technical data sheet. |
| **Supplier** | Motoforce Lubricants, 404 Time Square, Ayodhya Chowk, Opp. Synergy Hospital, 150 ft Ring Road, Rajkot, Gujarat 360006, India |
| **Telephone / e-mail** | +91 88665 87735 · motoforcelub@gmail.com |
| **Emergency telephone** | +91 88665 87735 (business hours) · National emergency: 112 |

## 2. HAZARDS IDENTIFICATION

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| **GHS classification** | Skin irritation, Category 2. Eye irritation, Category 2A. Hazardous to the aquatic environment, chronic, Category 3. |



GHS07 Exclamation mark

**WARNING**

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| **Pictograms** | GHS07 |
| **Signal word** | Warning |

**Hazard statements**

- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H412 Harmful to aquatic life with long-lasting effects.

**Precautionary statements**

- P102 Keep out of reach of children.
- P264 Wash hands thoroughly after handling.
- P273 Avoid release to the environment.
- P280 Wear protective gloves and eye protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
- P501 Dispose of contents and container through an authorised waste handler.

**Other hazards:** Classification applies to the concentrate. Diluted emulsions are less irritating but prolonged contact may still cause dermatitis.

## 3. COMPOSITION / INFORMATION ON INGREDIENTS

| Component | CAS No. | Conc. (% w/w) |
|---|---|---|
| Mineral oil (DMSO extract < 3%, IP 346) | 64742-54-7 / 64742-65-0 | **30 – 50** |
| Sodium petroleum sulphonate (emulsifier) | 68608-26-4 | **10 – 20** |
| Triethanolamine | 102-71-6 | **5 – 10** |
| Fatty acids, corrosion inhibitors and coupling agents | Proprietary mixture | **10 – 20** |

| Component | CAS No. | Conc. (% w/w) |
|---|---|---|
| Water | 7732-18-5 | **10 – 30** |

## 4. FIRST-AID MEASURES

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| **Inhalation** | Move to fresh air if mist causes discomfort. |
| **Skin contact** | Remove contaminated clothing. Wash skin with plenty of soap and water. Seek medical advice if irritation persists. |
| **Eye contact** | Rinse immediately with plenty of water for at least 15 minutes. Remove contact lenses if easy to do. Seek medical advice. |
| **Ingestion** | Rinse mouth with water. Do NOT induce vomiting. Seek medical advice. |
| **Notes to physician** | Treat symptomatically. |

## 5. FIRE-FIGHTING MEASURES

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| **Suitable media** | Foam, dry chemical powder, carbon dioxide ($CO_2$), water fog. |
| **Unsuitable media** | Do not use a direct water jet — it may spread the burning oil. |
| **Specific hazards** | Combustible liquid. Combustion produces smoke, carbon monoxide, carbon dioxide, and oxides of sulphur, phosphorus and zinc. |
| **Fire-fighter protection** | Wear self-contained breathing apparatus and full protective clothing. Cool exposed containers with water spray. |

## 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions: Spilled product makes surfaces very slippery. Wear gloves and safety footwear.
- Environmental precautions: Prevent entry into drains, sewers, soil and watercourses. Notify authorities if large quantities enter waterways.
- Clean-up: Contain with sand, earth or other inert absorbent. Collect into labelled containers for disposal. Wash the area with detergent and water.

## 7. HANDLING AND STORAGE

**Handling**

- Avoid contact with eyes and skin. Use gloves and eye protection when handling the concentrate.
- Always add concentrate to water, never water to concentrate.
- Monitor emulsion concentration, pH and bacterial growth; replace contaminated fluid.

**Storage**

- Store in original, tightly closed containers between 5 °C and 40 °C. Protect from frost — freezing can damage the concentrate.
- Keep away from strong oxidising agents and strong acids.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Exposure limits**

- Oil mist, mineral (highly refined): ACGIH TLV-TWA 5 mg/m$^3$ (inhalable fraction).

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| **Engineering controls** | Mist extraction on machine tools. |
| **Hand protection** | Nitrile gloves. |
| **Eye protection** | Safety goggles when handling the concentrate. |
| **Skin / body** | Work clothing; use barrier cream for prolonged contact with emulsion. |
| **Respiratory** | Not normally required with adequate mist extraction. |

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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| **Physical state / appearance** | Clear amber liquid (concentrate) |
| **Appearance (concentrate)** | Clear amber liquid |
| **Appearance (5% emulsion)** | Translucent |

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| **Density @ 15 °C (concentrate)** | 0.98 g/cm³ |
| **pH (5% emulsion)** | 9.0 – 9.5 |
| **Refractometer Factor** | 1.2 |
| **Corrosion Test (5% emulsion, cast iron chips)** | Pass |
| **Odour** | Mild, characteristic |
| **Solubility in water** | Forms an emulsion |
| **Flash point (concentrate)** | > 150 °C (COC, typical) |
| **Vapour pressure** | Not determined |

## 10. STABILITY AND REACTIVITY

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| **Reactivity** | Not reactive under normal conditions. |
| **Chemical stability** | Stable under recommended storage and handling conditions. |
| **Conditions to avoid** | Excessive heat, open flames and ignition sources. |
| **Incompatible materials** | Strong oxidising agents. |
| **Hazardous decomposition** | Carbon oxides, sulphur oxides and other irritating fumes on combustion. |

## 11. TOXICOLOGICAL INFORMATION

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| **Acute toxicity** | Expected to be of low acute toxicity. |
| **Skin irritation** | Concentrate causes skin irritation. Repeated contact with emulsions may cause dermatitis. |
| **Eye irritation** | Concentrate causes serious eye irritation. |
| **Sensitisation** | Not expected to be sensitising; contaminated in-use fluids may contain sensitising substances. |
| **Carcinogenicity** | Base oil contains < 3% DMSO extract (IP 346). Contains no nitrites. |

## 12. ECOLOGICAL INFORMATION

- Harmful to aquatic life with long-lasting effects. Do not discharge emulsions to drains or watercourses.
- Spent emulsions should be treated (split) before disposal of the aqueous phase.

## 13. DISPOSAL CONSIDERATIONS

- Spent emulsions and concentrate are hazardous waste under the Hazardous and Other Wastes Rules, 2016. Use an authorised waste handler.
- Do not pour into drains, soil or watercourses.

## 14. TRANSPORT INFORMATION

Not classified as dangerous goods for transport by road (ADR), rail (RID), sea (IMDG) or air (IATA).

## 15. REGULATORY INFORMATION

- Classified according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS).
- Manufacture, Storage and Import of Hazardous Chemical Rules, 1989 (India).
- Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016 (India) — applicable to used oil.

## 16. OTHER INFORMATION

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| **Revision** | Rev. 01 — October 2026 |
| **Related documents** | Technical Data Sheet — Semi Synthetic Cutting Oil |
| **Disclaimer** | The information in this MSDS is based on our present knowledge and is given in good faith. It describes the product with regard to safety requirements and does not constitute a guarantee of product properties. Users are responsible for complying with all applicable laws and regulations. Motoforce Lubricants accepts no liability for loss or damage arising from improper use of the product. |