INDUSTRIAL OIL

Industrial Gear EP 220/320/460

Safety Data Sheet

1. IDENTIFICATION OF THE PRODUCT AND COMPANY

Product name	Industrial Gear EP 220/320/460
Recommended use	Industrial enclosed gear lubricant
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

GHS classification	Hazardous to the aquatic environment, chronic, Category 3.
Pictograms	None required
Signal word	None

Hazard statements

- H412 Harmful to aquatic life with long-lasting effects.

Precautionary statements

- P102 Keep out of reach of children.
- P273 Avoid release to the environment.
- P280 Wear protective gloves.
- P501 Dispose of contents and container through an authorised waste handler.

Other hazards: Product may release small amounts of hydrogen sulphide when heated in confined spaces. Characteristic sulphur odour.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Component	CAS No.	Conc. (% w/w)
Highly refined mineral base oils (DMSO extract < 3%, IP 346)	64742-54-7 / 64742-65-0	**85 – 95**
Sulphur-phosphorus extreme-pressure additive package	Proprietary mixture	**3 – 10**
Pour-point depressant, anti-foam and anti-rust additives	Proprietary mixture	**< 2**

4. FIRST-AID MEASURES

Inhalation	Move to fresh air if oil mist or vapour from heated product causes discomfort. Seek medical advice if symptoms persist.
Skin contact	Remove contaminated clothing. Wash skin with soap and water. High-pressure injection injuries require immediate medical attention even if the wound appears minor.
Eye contact	Rinse cautiously with plenty of water for several minutes. Remove contact lenses if easy to do. Seek medical advice if irritation persists.
Ingestion	Rinse mouth with water. Do NOT induce vomiting. Seek medical advice.
Notes to physician	Treat symptomatically. Low acute toxicity is expected.

5. FIRE-FIGHTING MEASURES

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 prolonged or repeated contact with skin. Avoid breathing oil mist.
- Do not eat, drink or smoke while handling. Wash hands after use.
- Do not pressurise, cut, weld or grind empty containers — residues may ignite.

Storage

- Store in original, tightly closed containers in a cool, dry, well-ventilated area.
- Keep away from heat, sparks, open flames and strong oxidising agents.
- Store drums horizontally or covered to prevent water ingress. Recommended storage temperature 0–40 °C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure limits

- Oil mist, mineral (highly refined): ACGIH TLV-TWA 5 mg/m³ (inhalable fraction).

Engineering controls	General ventilation is usually adequate. Use local exhaust where oil mist is generated.
Hand protection	Nitrile or neoprene gloves for prolonged contact.
Eye protection	Safety glasses with side shields where splashing is possible.
Skin / body	Standard work clothing. Change oil-soaked clothing promptly.
Respiratory	Not normally required. Use an approved mist respirator if exposure limits may be exceeded.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state / appearance	Clear brown liquid
ISO Viscosity Grade	220 / 320 / 460
Density @ 15 °C	0.895 / 0.900 / 0.905 g/cm³
Kinematic Viscosity @ 40 °C	220 / 320 / 460 cSt
Kinematic Viscosity @ 100 °C	18.5 / 24.0 / 30.5 cSt
Viscosity Index	≥ 95
Flash Point (COC)	240 / 250 / 260 °C
Pour Point	−9 / −9 / −6 °C
Timken OK Load	≥ 60 lb
Odour	Characteristic sulphurous odour
Solubility in water	Insoluble
Autoignition temperature	> 300 °C (typical)
Vapour pressure	< 0.1 kPa @ 20 °C

10. STABILITY AND REACTIVITY

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

Acute toxicity	Expected to be of low toxicity: oral LD50 > 5,000 mg/kg; dermal LD50 > 2,000 mg/kg (rat/rabbit, based on components).
Skin irritation	Prolonged or repeated contact may cause dryness, defatting or dermatitis.
Eye irritation	May cause slight, transient irritation.
Sensitisation	Not expected to be a skin or respiratory sensitiser.
Carcinogenicity	Base oils contain < 3% DMSO extract (IP 346) and are not classified as carcinogenic.
Used oil	Used engine oil may contain harmful combustion by-products. Avoid skin contact with used oil.

12. ECOLOGICAL INFORMATION

- Not readily biodegradable. Oil films on water can harm aquatic organisms and reduce oxygen transfer.
- Low water solubility; expected to partition to soil and sediment. Prevent entry into the environment.
- The EP additive package is harmful to aquatic organisms with long-lasting effects.

13. DISPOSAL CONSIDERATIONS

- Used and waste oil is classified as hazardous waste under the Hazardous and Other Wastes (Management and Transboundary Movement) Rules, 2016.
- Send used oil only to authorised re-refiners or collectors registered with the State Pollution Control Board. Do not burn, dump or pour into drains or soil.
- Empty containers retain residues; drain fully and dispose of through an authorised recycler.

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

Revision	Rev. 01 — October 2026
Related documents	Technical Data Sheet — Industrial Gear EP 220/320/460
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.