



Pakistan State Oil

MATERIAL SAFETY DATA SHEET

PSO NEAT METAL CUTTING OIL

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY / UNDERTAKING

Product name	PSO NEAT METAL CUTTING OIL 22 & 32
MSDS #	16-02
Product Use	Neat Metal Cutting Fluid containing Sulfur. For specific application advice see appropriate Technical Data Sheet or consult your PSO representative.
Supplier	Pakistan State Oil Co. Ltd. Lubricants Technical Services – L&C 7 th Floor, PSO House Khayaban-e-Iqbal, Clifton, Karachi, Pakistan. Tel. 92 21 99203866
EMERGENCY TELEPHONE NUMBER	+92 21 99206853
Revision No:	05
Revision Date:	March 28, 2023

2. COMPOSITION/INFORMATION ON INGREDIENTS

- Highly refined mineral oil (IP 346 DMSO extract < 3%) and Proprietary performance additives.
- **This product does not contain any hazardous ingredients at or above regulated thresholds.**

3. HAZARDS IDENTIFICATION

- This material is not considered to be hazardous, but should be handled in accordance with good industrial hygiene and safety practices.

4. FIRST-AID MEASURES

Eyes

- Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists.

Skin

- Wash skin thoroughly with soap and water as soon as reasonably practicable. Remove heavily contaminated clothing and wash underlying skin. If redness and irritation occurs and persists, seek medical attention.

Ingestion

- If contamination of the mouth occurs, wash out thoroughly with water. Except as a deliberate act, the ingestion of large amounts of product is unlikely. If it should occur, do not induce vomiting; obtain medical advice

Inhalation

- If inhalation of mists, fumes or vapor causes irritation to the nose or throat, or coughing, remove to fresh air. If symptoms persist obtain medical advice.

Medical Advice

- Treatment should in general be symptomatic and directed to relieving any effects.

5. FIRE-FIGHTING MEASURES

- Use foam, dry powder or water fog. DO NOT USE water jets.
- Fires in confined spaces should be dealt with by trained personnel wearing approved breathing apparatus.
- Water may be used to cool nearby heat exposed areas/objects/packages. Avoid spraying directly into storage containers because of the danger of boil-over.

Combustion Products

- Toxic fumes may be evolved on burning or exposure to heat.
 - See Stability and Reactivity, Section 10 of this Safety Data Sheet.
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6. ACCIDENTAL RELEASE MEASURES

- Contain and recover spilled material using sand or other suitable inert absorbent material.
- It is advised that stocks of suitable absorbent material should be held in quantities sufficient to deal with any spillage, which may be reasonably anticipated.
- Spilled material may make surfaces slippery.
- Protect drains from potential spills to minimize contamination. Do not wash product into drainage system.
- In the case of large spills contact the appropriate authorities.
- In the case of spillage on water, prevent the spread of product by the use of suitable barrier equipment. Recover product from the surface. Protect environmentally sensitive areas and water supplies.

7. HANDLING AND STORAGE

Handling Precautions

- Good working practices, high standards of personal hygiene and plant cleanliness must be maintained at all times.
- Avoid unnecessary contact with fresh or used product.
- Wash hands thoroughly after contact.
- During metalworking, solid particles from work pieces or tools will contaminate the fluid and may cause abrasions of the skin. Where such abrasion results in a penetration of the skin, first aid treatment should be applied as soon as reasonably possible.
- The presence of certain metals in the work piece or tool, such as chromium, cobalt and nickel, can contaminate the metal working fluid, as can bacteria, and as a result may induce allergic and other skin reactions, especially if personal hygiene is inadequate.
- Use disposable cloths and discard when soiled. Do not put soiled cloths into pockets.

Fire Prevention

- Product contaminated rags; paper or material used to absorb spillages, represent a fire hazard, and should not be allowed to accumulate. Dispose of safely immediately after use.
- Swarf fires – Neat metal working oils may fume, thermally decompose or ignite if they come into contact with red hot swarf. To minimize the generation of red hot swarf ensure that a sufficient flow of oil is correctly directed to the cutting edge of the tool to flood it throughout cutting operations. As an additional precaution swarf should be regularly cleared from the immediate area to prevent the risk of fire.

Storage Conditions

- Store under cover away from heat and sources of ignition.
- Do not store above 50°C as the toxic gas hydrogen sulfide may be produced.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limits

- There is no appropriate occupational exposure limit for this material.
- Ensure good ventilation.
- Avoid, as far as reasonably practicable, inhalation of vapor, mists or fumes generated during use.
- If vapor, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonably practicable level.

Protective Clothing

- Wear face visor or goggles in circumstances where eye contact can accidentally occur.
- If skin contact is likely, wear impervious protective clothing and/or gloves.
- Protective clothing should be regularly dry cleaned. Change heavily contaminated clothing as soon as reasonably practicable; dry clean, launder and preferably starch before re-use. Wash any contaminated underlying skin with soap and water.

Respiratory Protection

- Respiratory protection is unnecessary, provided the concentration of vapor, mists or fumes is adequately controlled.
 - The use of respiratory equipment must be strictly in accordance with the manufacturers' instructions and any statutory requirements governing its selection and use.
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9. PHYSICAL AND CHEMICAL PROPERTIES

Typical Values

Grades:	22	32
Test Method Units		
Physical state	liquid	liquid
Color	amber	amber
Odor	oily	oily
Kinematic viscosity @ 40°C ASTM D 445 mm ² /s	22	32
Flash point (COC) ASTM D 92 °C	180	186
Pour point ASTM D 97 °C	-30	-24

10. STABILITY AND REACTIVITY

- Products of this type are stable and unlikely to react in a hazardous manner under normal conditions of use.
- Hazardous polymerization reactions will not occur.
- This material is combustible.

Materials to Avoid

- Avoid contact with strong oxidizing agents.

Hazardous Decomposition Products

- Thermal decomposition products will vary with conditions.
- Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide, hydrogen sulfide and oxides of sulfur.

11. TOXICOLOGICAL INFORMATION

Eyes

- Unlikely to cause more than transient stinging or redness if accidental eye contact occurs.

Skin

- Unlikely to cause harm to the skin on brief or occasional contact but prolonged or repeated exposure may lead to dermatitis.

Ingestion

- Unlikely to cause harm if accidentally swallowed in small doses, though larger quantities may cause nausea and diarrhea.

Inhalation

- At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility.
- May cause irritation to eyes, nose and throat due to exposure to vapor, mists or fumes.
- May be harmful by inhalation if exposure to vapor, mists or fumes resulting from thermal decomposition products occurs.

12. ECOLOGICAL INFORMATION

Mobility

- Spillages may penetrate the soil causing ground water contamination.

Persistence and degradability

- This product is inherently biodegradable.

Bio-accumulative potential

- There is no evidence to suggest bioaccumulation will occur.

Aquatic toxicity

- Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

13. DISPOSAL CONSIDERATIONS

- Where possible, arrange for product to be recycled.
- Dispose of via an authorized person/ licensed waste disposal contractor in accordance with local regulations.
- Incineration may be carried out under controlled conditions provided that local regulations for emissions are met.

14. TRANSPORT INFORMATION

- Not classified as hazardous for transport (ADR, RID, UN, IMO, and IATA/ICAO).
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15. REGULATORY INFORMATION

- Not classified as hazardous for supply.

16. OTHER INFORMATION

Compiled by:

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Pakistan State Oil Co. Ltd.
7th Floor, Khayaban-e-Iqbal, Clifton,
Karachi

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Health and safety precautions and environmental advice noted in this data sheet may not be accurate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. No statement made in this data sheet shall be construed as a permission, recommendation or authorization given or implied to practice any patented invention without a valid license. PSO shall not be responsible for any damage or injury resulting from abnormal use of the material, from any failure to adhere to recommendations, or from any hazards