

MATERIAL SAFETY DATA SHEET

1. IDENTITY OF MATERIAL

PRODUCT NAME : Punching Oil

2. COMPOSITION INGREDIENTS

| MATERIAL | % | CAS NUMBER | TLV (Unit) | OSHA PEL |
|--------------------------|-------|------------|------------|----------|
| Odorless Mineral Spirits | > 60 | - | - | - |
| Ester Lubricants | > 1,5 | - | - | - |

Other ingredients are lubricating additives, extreme pressure, polymer.

3. PHYSICAL DATA

| | |
|---------------------------|------------------|
| Appearance | : Bright & Clear |
| Physical State | : Liquid |
| Specific Gravity @ 15.5°C | : 0.799 |
| Viscosity at 25°C | : 2.65 |
| pH | : N/A |
| Freezing Point | : N/D |
| Odor | : Mild |
| Solubility in Water | : Insoluble |

4. FIRST AID MEASURES

INHALATION :

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protections. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

SKIN CONTACT :

Wash contact areas with soap and water. Remove contaminated clothing. Launder contaminated clothing before reuse.

EYE CONTACT :

Flush thoroughly with water. If irritation occurs, get medical assistance.

INGESTION :

Seek immediate medical attention. Do not induce vomiting.

5. FIRE-FIGHTING MEASURES

EXTINGUISHING MEDIA

Appropriate Extinguishing Media : Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Inappropriate Extinguishing Media : Straight streams of water.

FIRE FIGHTING

Fire fighting instructions : Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Unusual Fire Hazards: Combustible. Hazardous material. Firefighters should consider protective equipment indicated in Section 7.

Hazardous Combustion Product : Oxides of carbon, incomplete combustion products, smoke, fume.

FLAMMIBILITY PROPERTIES

Flash Point : 79°C (175°F)

Autoignition Temperature : 253°C (488°F) Approximate

6. HANDLING AND STORAGE

HANDLING :

Avoid contact with skin. Use proper bonding and/or earthing procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source)

STORAGE :

Keep container closed. Handle container with care. Open slowly in order to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be earthed and bonded. Drums must be earthed and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters.

7. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS :

The level of protection and types of controls necessary will vary depending upon Potential exposure conditions.

Control measures to consider:

Adequate ventilation should be provided so that exposure limits are not exceeded. Use explosion-proof ventilation equipment.

PERSONAL PROTECTION :

Hand protection :

Any specific glove information provided is based on published literature and glove manufacturer data. Work conditions can greatly effect glove durability: inspect and replace worn and damaged gloves. The types of gloves to be considered for this material include:

If prolonged or repeated contact is likely. Chemical-resistant gloves are recommended. If contact with forearms is likely, wear gauntlet-style gloves.

Eye protection :

If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection:

Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include:

If prolonged or repeated contact is likely, chemical, and oil resistant clothing is recommended.

8. STABILITY AND REACTIVITY

Stability :

Material is stable under normal condition.

Conditions to avoid :

Avoid heat, sparks, open flames and other ignition sources.

Material to avoid :

Strong oxidizers

Hazardous decomposition products :

Material does not decompose at ambient temperatures.

9. TOXIOLOGICAL INFORMATION

| <u>Rout of Exposure</u> | <u>Remarks</u> |
|-----------------------------|--|
| INHALATION | |
| Toxicity: Data available | Minimally Toxic. Based on test data for structurally similar materials. |
| Irritation: Data available | Negligible hazards at ambient/normal handling temperatures. Based on test data for structurally similar materials. |
| INGESTION | |
| Toxicity: LD50 > 15000mg/kg | Minimally Toxic. Based on test data for structurally similar materials. |
| SKIN | |
| Toxicity: LD50 > 3160mg/kg | Minimally Toxic. Based on test data for structurally similar materials. |
| Irritation: Data available | Mildly irritating to skin with prolonged exposure. Based on test data for structurally similar materials. |
| EYE | |
| Irritation: Data available | May cause mild, short-lasting discomfort to eyes. Based on test data for structurally similar materials. |

10. ECOLOGICAL INFORMATION

The information given is based on data available for the material, the components of the material, and similar materials.

ECOTOXICITY

Material – Not expected to be harmful to aquatic organisms.

Material – Not expected to be demonstrate chronic toxicity to aquatic organisms.

11. TRANSPORT INFORMATION

LAND : Not Regulated for Land Transport

SEA (IMDG) : Not Regulated for Sea Transport according to IMDG-Code

AIR (IATA) Not Regulated for Air Transport

12. OTHER INFORMATION

N/D = Not determined

N/A = Not applicable