

MATERIAL SAFETY DATA SHEET

| | | |
|-----------------|-------------------------|-------------|
| Product: | HARP® POE Series | Page: 1/4 |
| | Revision: 1.01 | Date: 11/08 |

01 - IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

| | |
|-----------------|-----------------------------------|
| PRODUCT NAME | POE22, POE32, POE46, POE68 POE120 |
| CHEMICAL FAMILY | Petroleum Hydrocarbons |

| | |
|----------|--|
| SUPPLIER | Harp International Limited Gellihirion Industrial Estate Pontypridd Rhondda Cynon Taff CF37 5SX United Kingdom |
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| | |
|------------------------------------|-------------------------------|
| EMERGENCY TELEPHONE NUMBER: | +44 (0) 1270 502891 (24 HOUR) |
|------------------------------------|-------------------------------|

02 - HAZARDS IDENTIFICATION (Potential effects from over exposure)

| | |
|------------------------|---|
| EYE : | May cause eye irritation. |
| INHALATION : | Product is not toxic by inhalation. If oil mist is inhaled, remove to fresh air and consult physician. |
| INGESTION : | Do Not Take Internally. Consult physician at once. Low toxicity on ingestion, may cause nausea and diarrhoea. |
| SKIN : | Minimally irritating. Prolonged contact can cause dermatitis. |
| THRESHOLD LIMIT VALUE: | Not established |
| SITUATIONS TO AVOID: | Avoid breathing oil mists |

To the best of our knowledge, the toxicological properties of these compounds have not been fully investigated. Analogous compounds are considered to be essentially non-toxic.

This product is non-hazardous. The product contains no known carcinogens. No special warning labels are required under OSHA 29 CFR 1910.1200.

03 - COMPOSITION/INFORMATION ON INGREDIENTS

| | |
|----------------|----------------------|
| Chemical name: | Ester (Polyol Ester) |
| CAS No.: | Proprietary |
| Percentage: | Proprietary |

04 - FIRST AID MEASURES

| | |
|--------------|--|
| EYE : | Flush eyes with water for 15 minutes and consult physician. |
| SKIN: | Upon contact with skin, wash with soap and water. Remove contaminated clothing-Laundry or dry clean clothes before reuse. Dispose of leather articles. |
| INHALATION : | Evacuate to a safe area with plenty of fresh air. Allow victim to rest in a well ventilated area and consult physician.. |
| INGESTION : | Consult physician at once. May cause nausea and diarrhoea. |

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05 - FIRE-FIGHTING MEASURES

This product is combustible.

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|--|--|
| Flash point °C = open cup cleveland open cup | 230-300 °C |
| Flammable limits | Not established |
| Auto-ignition temperature | No data |
| Unusual hazards | None |
| Extinguishing agents | Dry chemical, CO ₂ foam, water fog (see below) |
| Protective clothing | Fire-fighters should use NIOSH/MNSA approved self-contained breathing apparatus and full protective gear |
| Fire-fighting procedures | Burning fluid may evolve irritating/noxious fumes. Use water fog to cool fire exposed containers. USE WATER CAREFULLY NEAR EXPOSED/BURNING LIQUIDS. May cause frothing and splashing of hot material. |

06 – SPILL OR LEAK HANDLING PROCEDURES

| | |
|---------------------|--|
| Personal protection | Wear suitable protective equipment, especially splash proof goggles, rubber gloves and rubber over shoes. Remove all contaminated clothing promptly. |
| Procedures | Floor may be slippery: Use care to avoid falling. Stop source of spill. Dike spill area. Use absorbent materials to soak up fluid (i.e. sand, sawdust, and commercially available materials). Wash spill area with large amounts of water. Properly dispose of all materials. CAUTION: Keep spills and cleaning runoff out of municipal sewers and open bodies of water. |

07 - HANDLING AND STORAGE

Avoid contact with eyes, skin and clothing.

Ensure that containers are properly secured before moving.

Keep container closed and keep away from oxidizing materials.

Store in a cool, well ventilated area. Product is hygroscopic. Storage under nitrogen if highly recommended.

“Empty” containers contain residue (liquid and/or vapour) and can be dangerous. **DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.** Do not attempt to clean since residue is difficult to remove. "Empty" drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. All other containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. For work on tanks refer to Occupational Safety and Health Administration regulations, ANSI Z49.1, and other governmental and industrial references pertaining to cleaning, repairing, welding, or other contemplated operations.

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08 - EXPOSURE CONTROLS/PERSONAL PROTECTION

| Component exposure limit | | OSHA | | ACGIH | | Carcinogenic |
|--------------------------|-------------------|------|------|-------|------|--------------|
| Component | Units | TWA | STEL | TLV | STEL | |
| Ester (Polyol Ester) | mg/m ³ | N.D. | N.D. | N.D. | N.D. | No |

PERSONAL PROTECTION MEASURES

EYE/ FACE
SKIN

Safety glasses/goggles (ANSI Z87.1) or approved equivalent.
Strongly recommend protective gloves, especially for prolonged exposures. Gloves should be removed immediately if there is any indication of degradation or chemical breakthrough. Long sleeved clothing to minimize skin contact.

INHALATION

Use in well ventilated area. If mist is being generated and exceeds the TWA/TLV listed above than a respiratory program meeting OSHA 1910.134 and ANSI Z88.2 requirements must be followed.

VENTILATION

Local exhaust

09 - PHYSICAL AND CHEMICAL PROPERTIES

| | |
|--------------------------------------|------------------------------------|
| APPEARANCE | Clear |
| PHYSICAL STATE | Liquid |
| ODOUR | mild distinct |
| VAPOUR PRESSURE | 0.01mm of Hg @ 20/C |
| BOILING POINT | > 650°F |
| SPECIFIC GRAVITY (WATER=1) | 0.94 - 0.97 |
| FLASH POINT COC | 230 - 300°C |
| COLOR | Gray to yellow or light brown tint |
| FIRE POINT | N.D. |
| VISCOSITY SUS | 100 - 2400 |
| MELTING POINT (POUR POINT) | 0 |
| VOLATILES, % BY VOLUME | 0% |
| SOLUBILITY IN WATER | Negligible |
| EVAPORATION RATE (BUTYL ACETATE = 1) | Nil |
| VAPOUR DENSITY (AIR=1) | Not applicable |

10 - STABILITY AND REACTIVITY

Stability:

Stable

Conditions to avoid:

Excessive heat, formation of oil mist

Material to avoid:

String oxidisers, caustic or acidic solutions such as liquid chlorine, concentrated oxygen, sodium hypochlorite, calcium hypochlorite, smoke on combustion, Cox etc.

Hazardous decomposition:

Analogous compounds evolve carbon monoxide, carbon dioxide and other unidentified fragments when burned. See section 5.

Hazardous polymerization:

Will not occur.

This product may degrade some paints and rubber materials

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11 - TOXICOLOGICAL INFORMATION

Toxicity data for a similar material is listed below

Skin irritation May cause irritation and possible dermatitis

Eye irritation Slight irritation

12 - ECOLOGICAL INFORMATION

No specific ecological data are available for this product.

13 - WASTE DISPOSAL

Incinerate this product and all associated wastes in a licensed facility in accordance with Federal, State and local regulations.

14 - REGULATORY INFORMATION

| Degree of hazard | NFPA | HMIS | Hazard ratings | |
|---------------------------|------|------|----------------|---------------|
| Health | 0 | 0 | 0 | Insignificant |
| Fire | 1 | 1 | 1 | Moderate |
| Reactivity | 0 | 0 | 2 | High |
| Specific hazards | None | | 3 | Extreme |
| Personal Protection Index | | B | 4 | Extreme |

15 - TRANSPORT INFORMATION

This product is non-hazardous. The product contains no known carcinogens. No special warning labels are required under OSHA 29CFR 1910.1200. OSHA hazard warning are not applicable for this product, therefore no OSHA warnings would appear on the label. No EPA hazard classification code. **All components used in the production of this product are TSCA approved.**

16 - OTHER INFORMATION

This data sheet was prepared in accordance with Directive 2001/58/EC.

This information contained within this safety data sheet applies only to the Harp International Limited product to which it relates. The information provided is based upon our best knowledge at the time that this safety data sheet was published.

The information is believed to be accurate and is given in all good faith.

When used in other preparations, in formulations or in mixtures, it is necessary to ascertain if the classification of the hazards have changed. The attention of users is drawn to the possibility of creating other hazards when the product is used for purposes other than that for which it is recommended. In such cases a complete reassessment should be made by user.

This safety data sheet should only be used and reproduced in order that the necessary measures may be taken relating to the protection of health and safety at work and relating to the protection of environment.

The reference to the legislative, regulatory and codes of practice documents must not be considered as exhaustive.

It is the responsibility of handlers of the product to pass on the totality of the information contained within this document to any subsequent persons who will come into contact with, handle or use the product in any way.

They should check the adequacy of the information contained in the safety data sheet received before passing it onto their customers.

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