



PANAMA PETROCHEM LTD.

Plot-No.3303, GIDC Estate,
Ankleshwar, Gujarat-393002.
INDIA.

MATERIAL SAFETY DATA SHEET

MSDS : PPL/2012

DATE : 30.03.2012

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT: Multi-Purpose MP2 Grease

Regd. Office & Plant:	Corp. Office:
Panama Petrochem Ltd. Plot-No. 3303, GIDC Estate, Ankleshwar, Gujarat- 393002 INDIA	Panama Petrochem Ltd. 4 th Floor, Aza House, Turner Road, Opp. Andhra Bank, Near Tava Restorent, Bandra (West) Mumbai - 400050

EMERGENCY NUMBER

+91 2646 250281, 221068

For non-emergency and all other
information call : +91 2646 225907

2. COMPOSITION / INFORMATION ON INGREDIENTS

The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

A lubricating grease consisting of highly-refined mineral oil and additives.

3. HAZARDS IDENTIFICATION

Health Hazards: Not expected to be a health hazard when used under normal conditions.

Health Hazards Inhalation: Under normal conditions of use, this is not expected to be a primary route of exposure.

Skin Contact: Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculitis.

Eye Contact: May cause slight irritation to eyes.

Ingestion: Low toxicity if swallowed.

Other Information: High-pressure injection under the skin may cause serious damage including local necrosis. Used grease may contain harmful impurities.

Signs and Symptoms: Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection. Oil acne/folliculitis signs and symptoms may include formation of black pustules and spots on the skin of exposed areas. Ingestion may result in nausea, vomiting and/or diarrhoea.

Aggravated Medical Condition : Pre-existing medical conditions of the following organ(s) or organ system(s) may be aggravated by exposure to this material: Skin.

Environmental Hazards: Not classified as dangerous for the environment.

4. FIRST AID MEASURES

General Information: Not expected to be a health hazard when used under normal conditions.

Inhalation: No treatment necessary under normal conditions of use. If symptoms persist, obtain medical advice.

Skin Contact: Remove contaminated clothing. Flush exposed area with water and follow by washing with soap if available. If persistent irritation occurs, obtain medical attention. When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.

Eye Contact: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

Ingestion: In general no treatment is necessary unless large quantities are swallowed, however, get medical advice.

Advice to Physician : Treat symptomatically. High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimize tissue damage and loss of function. Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may

be necessary. Local an aesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and is chaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential

5. FIRE FIGHTING MEASURES

Clear fire area of all non-emergency personnel.

Flash point: > 150 °C / 284 °F (COC)

Upper / lower Flammability or Explosion limits: Typical 1 - 10 % (V) (based on mineral oil)

Auto ignition temperature : > 320 °C / 608 °F

Specific Hazards : Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke). Carbon monoxide. Unidentified organic and inorganic compounds.

Suitable Extinguishing Media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable Extinguishing Media: Do not use water in a jet.

Protective Equipment for Firefighters: Proper protective equipment including breathing apparatus must be worn when approaching a fire in a confined space

6. ACCIDENTAL RELEASE MEASURES

Avoid contact with spilled or released material. For guidance on selection of personal protective equipment see Chapter 8 of this Material Safety Data Sheet. See Chapter 13 for information on disposal. Observe all relevant local and international regulations.

Protective measures: Avoid contact with skin and eyes. Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Clean Up Methods: Shovel into a suitable clearly marked container for disposal or reclamation in accordance with local regulations.

7. HANDLING AND STORAGE

General Precautions: Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Handling: Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used.

Storage : Keep container tightly closed and in a cool, well-ventilated place. Use properly labelled and closeable containers. Storage Temperature: 0 - 50 °C / 32 - 122 °F

Recommended Materials: For containers or container linings, use mild steel or high density polyethylene.

Unsuitable Materials: PVC.

Additional Information: Polyethylene containers should not be exposed to high temperatures because of possible risk of distortion.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls: The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include: Adequate ventilation to control airborne concentrations. Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

Personal Protective Equipment: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Respiratory Protection: No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment

suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for combined particulate/organic gases and vapours [boiling point >65 °C (149 °F)].

Hand Protection: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection: PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, glove thickness, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

Eye Protection: Wear safety glasses or full face shield if splashes are likely to occur.

Protective Clothing: Skin protection not ordinarily required beyond standard issue work clothes.

Monitoring Methods: Monitoring of the concentration of substances in the breathing zone of workers or in the general workplace may be required to confirm compliance with an OEL and adequacy of exposure controls. For some substances biological monitoring may also be appropriate.

Environmental Exposure Controls: Minimize release to the environment. An environmental assessment must be made to ensure compliance with local environmental legislation.

9. PHYSICAL AND CHEMICAL PROPERTIES :

Appearance: Brown. Semi-solid.

Odour: Slight hydrocarbon.

pH: Not applicable.

Initial Boiling Point and Boiling Range: Data not available

Dropping point: Typical 180 °C / 356 °F

Flash point: > 150 °C / 284 °F (COC)

Upper / lower Flammability

or Explosion limits: Typical 1 - 10 %(V) (based on mineral oil)

Auto-ignition temperature : > 320 °C / 608 °F

Vapour pressure: < 0.5 Pa at 20 °C / 68 °F (estimated value(s))

Density: Typical 900 kg/m³ at 15 °C / 59 °F

Water solubility: Negligible.

n-octanol/water partition

coefficient (log Pow): > 6 (based on information on similar products)

Kinematic viscosity: Not applicable.

Vapour density (air=1): > 1 (estimated value(s))

Evaporation rate (nBuAc=1): Data not available

10. STABILITY AND REACTIVITY

Stability: Stable.

Conditions to Avoid: Extremes of temperature and direct sunlight.

Materials to Avoid: Strong oxidizing agents.

Hazardous Decomposition Products : Hazardous decomposition products are not expected to form during normal storage.

11. TOXICOLOGICAL INFORMATION

Basis for Assessment: Information given is based on data on the components and the toxicology of similar products.

Acute Oral Toxicity: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rat

Acute Dermal Toxicity: Expected to be of low toxicity: LD50 > 5000 mg/kg , Rabbit

Acute Inhalation Toxicity: Not considered to be an inhalation hazard under normal conditions of use.

Skin Irritation: Expected to be slightly irritating. Prolonged or repeated skin contact without proper cleaning can clog the pores of the skin resulting in disorders such as oil acne/folliculate.

Eye Irritation: Expected to be slightly irritating.

Respiratory Irritation: Inhalation of vapours or mists may cause irritation.

Sensitisation: Not expected to be a skin sensitiser.

Repeated Dose Toxicity: Not expected to be a hazard.

Mutagenicity: Not considered a mutagenic hazard.

Carcinogenicity: Product contains mineral oils of types shown to be noncarcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC). Other components are not known to be associated with carcinogenic effects.

Reproductive and

Developmental Toxicity: Not expected to be a hazard.

12. ECOLOGICAL INFORMATION

Eco toxicological data have not been determined specifically for this product. Information given is based on knowledge of the components and the eco toxicology of similar products.

Acute Toxicity: Poorly soluble mixture. May cause physical fouling of aquatic organisms. Expected to be practically non toxic: LL/EL/IL50 > 100 mg/l (to aquatic organisms) (LL/EL50 expressed as the nominal amount of product required to prepare aqueous test extract). Mineral oil

is not expected to cause any chronic effects to aquatic organisms at concentrations less than 1 mg/l.

Mobility: Semi-solid under most environmental conditions. Floats on water. If it enters soil, it will adsorb to soil particles and will not be mobile.

Persistence/degradability: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but the product contains components that may persist in the environment.

Bioaccumulation: Contains components with the potential to bioaccumulate.

Other Adverse Effects: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

13. DISPOSAL CONSIDERATIONS

Material Disposal: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses.

Container Disposal: Dispose in accordance with prevailing regulations, preferably to a recognized collector or contractor. The competence of the collector or contractor should be established beforehand.

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations.

14. TRANSPORT INFORMATION

Non Toxic when transported in open tanker or in drums.

15. OTHER INFORMATION

NFPA RATINGS: Health 0; Flammability 1; Reactivity 0;
HMIS RATINGS: Health 1; Flammability 1; Reactivity 0;
(0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme, PPE:- Personal Protection Equipment Index recommendation, - Chronic Effect Indicator), These values are obtained using the guidelines or published

evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

REVISION STATEMENT:

This revision updates Section 1 (Chemical Product).

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modification of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.