**Material Safety Data Sheet**

1. **MATERIAL AND COMPANY IDENTIFICATION**

**Material Name** : **Petro Cosmo LC EP 2**

**Uses** : Automotive and industrial grease.

**Manufacturer/Supplier** : **PT. PETROMITRA PACIFIC INTERNUSA**

 Jl Raya Serpong No 26B

 Tangerang

**Emergency Telephone Number**

**Spill Information** : 021-53125041

**Health Information** : 021-53125041

1. **COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Identity CAS No. Concentration**

Asphalt, fumes 8052-42-4 1.00 - 5.00%

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

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

1. **HAZARDS IDENTIFICATION**

**Emergency Overview**

**Appearance and Odour** : Red/Blue. Semi-solid. Slight hydrocarbon.

**Health Hazards** : High-pressure injection under the skin may cause serious

 damage including local necrosis.

**Safety Hazards** : Not classified as flammable but will burn.

**Environmental Hazards** : Not classified as dangerous for the environment.

**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** : Pre-existing medical conditions of the following organ(s) or

**Condition** organ system(s) may be aggravated by exposure to this material: Skin.

**Environmental Hazards** : Not classified as dangerous for the environment.

1. **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 minimise 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 anaesthetics

 or hot soaks should be avoided because they can contribute to

 swelling, vasospasm and ischaemia. Prompt surgical decompression,

 debridement and evacuation of foreign material should be performed under

 general anaesthetics, and wide exploration is essential.

1. **FIRE FIGHTING MEASURES**

Clear fire area of all non-emergency personnel.

**Flash point** : > 180 °C / 356 °F (COC)

**Upper / lower** : Typical 1 - 10 %(V)(based on mineral oil)

**Flammability or**

**Explosion limits**

**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** : Foam, water spray or fog. Dry chemical powder, carbon

**Media** dioxide, sand or earth may be used for small fires only.

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

**Media**

**Protective Equipment for** : Proper protective equipment including breathing apparatus

**Firefighters**  must be worn when approaching a fire in a confined space.

1. **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.

1. **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.

**Additional Information** : Due to the product's semi-solid consistency, generation of

 mists and dusts is unlikely to occur.

**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** :Personal protective equipment (PPE) should meetrecommended 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** : Minimise release to the environment. An environmentalassessment must be made

**Controls**  to ensure compliance with localenvironmental legislation.

1. **PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : Red/Blue. Semi-solid.

Odour : Slight hydrocarbon.

pH : Not applicable.

Initial Boiling Point and : Data not available

Boiling Range

Dropping point : > 260 °C

Flash point : > 180 °C

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

or Explosion limits

Auto-ignition temperature : > 320 °C

Vapour pressure : < 0.5 Pa at 20 °C

Density : Typical 900 kg/m3 at 15 °C

Water solubility : Negligible.

n-octanol/water partition : > 6 (based on information on similar products)

coefficient (log Pow)

Kinematic viscosity : Not applicable.

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

Evaporation rate (nBuAc=1) : Data not available

1. **STABILITY AND REACTIVITY**

**Stability** : Stable.

**Conditions to Avoid** : Extremes of temperature and direct sunlight.

**Materials to Avoid** : Strong oxidising agents.

**Hazardous Decomposition** :Hazardous decomposition products are not expected to form

**Products** :during normal storage.

1. **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

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

**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/folliculitis.

**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** : Not expected to be a hazard.

**Developmental Toxicity**

**Additional Information** : Used grease may contain harmful impurities that have accumulated during

 use. The concentration of such harmful impurities will depend on use and

 they may present risks tohealth and the environment on disposal. ALL used

 grease should be handled with caution and skin contact avoided as far as

 possible. High pressure injection of product into the skin may lead to local

 necrosis if the product is not surgically removed.

1. **ECOLOGICAL INFORMATION**

Ecotoxicological data have not been determined specifically for this product. Information given is

based on a knowledge of the components and the ecotoxicology 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.

1. **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 recognised 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.