# *SAFETY DATA SHEET*

## eni Grease MU EP 0

Effective date: 22/12/2023 Version: 1.0 Validity Period: 5 Years

## Section 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifier

| | | |
|---|---|---|
| Products name | : | eni Grease MU EP 0 |
| Product form | : | Mixture |
| Types of products | : | Lubricants Grease |
| CAS number | : | Not specified |

### 1.2 Relevant identified uses

| | | |
|---|---|---|
| Main use category | : | Industrial use, professional use |
| Industrial / professional use specifications | : | Non-dispersive use |
| Use of the substance / mixture | : | General purpose lubricant<br>----<br>Do not use the product for any purpose that the manufacturer has not recommended |
| Function or usage category | : | Lubricants and additives |

### 1.3 Details of the supplier of the safety data sheet

| | | |
|---|---|---|
| Company name | : | PT. ALP Petro Industry |
| Address | : | Jl. Raya Kebonsari Ds Legok, PO BOX 100 Gempol-Pasuruan 67155 Indonesia |
| Emergency phone number | : | (+62) 0343 - 853308 |
| Licensor | : | Eni SpA<br>Viale Giorgio Ribotta, 51<br>00144 Rome-Italy |

## Section 2: Hazards identification

### 2.1 Classification of the substance / mixture

| | | |
|---|---|---|
| Classification according to Regulation (EC) No. 1272/2008 [EU-GHS / CLP] | : | Not classified |
| Adverse physicochemical, human health and environmental effects | : | None to be reported, according to the present EU regulations. For specific information about the toxicological/ ecotoxicological properties and classification of this product, see Sect. 11 and/or Sect. 12. |

### 2.2 Label elements

| | | |
|---|---|---|
| EUH statement | : | EUH210 – Safety data sheet available on request |

### 2.3 Other hazards (not related to classification)

| | | |
|---|---|---|
| Other hazards not contributing to the classification | : | Combustible product. Thermal decomposition generates toxic vapours. In case of contact with eyes, this product may cause irritation. Ingestion may cause nausea, vomiting and diarrhea. Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. May cause long-term adverse effects in the environment. A potential risk may arise from the release of hydrogen sulfide, when the product is stored or handled at high temperature. Hydrogen sulfide may accumulate in the tanks or other confined spaces, with danger to the workers that |

enter the spaces. In these cases overexposure to hydrogen sulfide may cause irritation to airways, nausea, dizziness, loss of consciousness and death.

This substance / mixture does not meet the PBT criteria of REACH regulations, annex XIII.

This substance / mixture does not meet the vPvB criteria of REACH regulations, annex XIII.

## Section 3 : Composition/information on ingredients

### 3.1 Subtances

N/ A

### 3.2 Mixture

Composition / information content : Hydrocarbon mixture
Additives / additives

Composition table :

| Chemical name | CAS no. | % by weight |
|---|---|---|
| Residual oils (petroleum), Solvent-refined (see note [*]) | 64742-01-4 | >= 40 < 100 |
| Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated (see note [*]) | 101316-72-7 | >= 40 < 100 |
| Zinc diamyldithiocarbamate | 15337-18-5 | >= 1,1 < 1,4 |

*(*)*
this product has a value of DMSO extract < 3 % wt, according to IP 346/92, According to the criteria laid out by the EU (note L, Annex VI of Regulation (CE) 1272/2008), this product must be regarded as non carcinogenic. Full text of H- Statements: see section 16

## Section 4 : First Aid Measures

### 4.1 Description of first aid measures

First aid measures after inhalation : Remove to fresh air, keep the casualty warm and at rest. If breathing is difficult, give oxygen if possible, or assisted ventilation. Seek medical advice. See also section 4.3.

First-aid measures after skin contacts : Take off contaminated clothing and shoes. Wash thoroughly with soap and water. If skin irritation occurs: Get medical advice/attention.

First aid measures after eye contact : Rinse immediately with plenty of water. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist.

First-aid measures after ingestion : Do NOT induce vomiting. If the person is conscious, rinse mouth with water without swallowing. Keep at rest. Call for medical assistance or bring to an hospital. If the casualty is unconscious, place in the recovery position. In case of spontaneous vomiting, keep head low, to avoid the risk of aspiration into the lungs. Do not give anything by mouth to an unconscious person.

### 4.2 Most important symptoms and effects , both acute and delayed

Symptoms/ effects after inhalation : None under normal conditions at ambient temperatures.

Symptoms/ effects after skin contact : Prolonged and repeated skin contact may cause reddening, irritation and dermatitis.

Symptoms/ effects after eye contact : Contact with eyes may cause temporary reddening and irritation.

Symptoms/ effects after ingestion : Accidental ingestion of small quantities of the product may cause nausea, discomfort and gastric disturbances.

Symptoms/ effects on intravenous administration : No information available.

| | | |
|---|---|---|
| Chronic symptoms | : | None known. |

### 4.3 Indications that need immediate medical attention and special care

Obtain medical attention if casualty has an altered state of consciousness or if symptoms do not resolve. If there is any suspicion of inhalation of H2S (hydrogen sulphide), Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Send patient to hospital. Immediately begin artificial respiration if breathing has ceased. Administer oxygen if necessary.

## Section 5 : Fire Fighting Measures

### 5.1 Extinguishing media

| | | |
|---|---|---|
| Suitable extinguishing media | : | Dry chemical, CO2, or water spray or regular foam. |
| Unsuitable extinguishing media | : | Do not use a heavy water stream. Use water stream to cool containers. |

### 5.2 Special hazards arising from the substance or mixture

| | | |
|---|---|---|
| Fire hazard | : | This product is combustible, but not classified as Flammable. The creation of flammable vapour mixtures takes place at temperatures which are higher than normal ambient levels. |
| Explosion hazard | : | No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : | Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide, NOx (harmful/toxic gases). Oxygenated compounds (aldehydes, etc.). Combustion products include sulphur oxides (SO2 and SO3) and Hydrogen sulphide H2S. LiOx. POx. ZnOx. |

### 5.3 Advice for firefighters

| | | |
|---|---|---|
| Firefighting instructions | : | Shut off source of product, if possible. Move undamaged containers from immediate hazard area if it can be done safely. Use water sprays to cool containers and surfaces exposed to the flames. If the fire cannot be controlled, evacuate area. |
| Special protective equipment for firefighters | : | Personal protection equipment for firefighters (see also sect. 8). In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. EN 443. EN 469. EN 659. |
| Other information | : | In case of fire, do not discharge residual product, waste materials and runoff water: collect separately and use a proper treatment. |

## Section 6 : Accidental Release Measures

| | | |
|---|---|---|
| Personal precautions, protective equipment and emergency procedures | : | Stop and prevent leakage at source, if it is safe to do so. Eliminate all sources of ignition if it is safe to do so (e.g. electricity, sparks, fire, flares). Avoid accidental spraying on hot surfaces or electrical contacts. Avoid direct contact with the material being released (see Section 8). Continue to follow the wind. |
| Environmental precautions | : | Prevent products from entering sewers, rivers or other bodies of water. In case of contamination of environmental compartments (soil, subsoil, surface or underground waters), remove contaminated soil when possible, and in any case treat all involved compartments in accordance with local regulations. The site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases. |
| Methods and materials for containment and cleaning | : | Contain spilled liquid with sand, earth or other suitable absorbents (non-flammable). Recover free liquid and waste |

| | | |
|---|---|---|
| | | materials in suitable waterproof and oil-resistant containers. Clean contaminated area. Dispose of according to local regulations. Transfer collected product and other contaminated materials to suitable containers for recovery or safe disposal.<br>Wash contaminated area with large amounts of water. |
| Reference to other sections | : | For further information refer to section 8: "Exposure controls/personal protection". For further information refer to section 13. |

## Section 7 : Handling and Storage

### 7.1 Precautions for safe handling

| | | |
|---|---|---|
| Precautions for safe handling | : | This material is combustible, but will not ignite readily. Keep away from heat/sparks/open flames/hot surfaces. Avoid contact with skin, eyes and clothing. Do not use compressed air for filling, discharging, or handling operations. Use and store only outdoors or in a well-ventilated area. Emptied containers can contain combustible product residues. Do not cut, weld, drill, burn or incinerate empty containers or drums, unless they have been drained and cleaned. |
| Hygienic measures | : | Ensure that proper housekeeping measures are in place. Do not breathe fume/ mist/ vapours. Do not ingest. Do not smoke. Do not eat and do not drink during use. Do not clean hands with dirty or oil-soaked rags. Do not re-use clothes, if they are still contaminated. Keep away from food and beverages. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Separate working clothes from town clothes. Launder separately. |

### 7.2 Conditions for safe storage, including incompatibilities

| | | |
|---|---|---|
| Storage conditions | : | Store in dry, well ventilated area. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not smoke. |
| Incompatible products | : | Strong oxidizing agent |
| Storage area | : | Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds so as to prevent ground and water pollution in case of leaks or spills. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. |
| Package and container | : | If the product is supplied in containers: Keep containers tightly closed and properly labelled. Keep only in the original container or in a suitable container for this kind of product. |
| Packaging material | : | For containers, or container linings use materials specifically approved for use with this product. |

## Section 8 : Exposure Control / Personal Protection

### 8.1 Control Parameters

| | | |
|---|---|---|
| Threshold Value (NAV) | : | ACGIH TLV-TWA = 5 mg/ $m^3$ (mineral oil mist).<br>ACGIH TLV-STEL = 10 mg/ $m^3$ (mineral oil mist). |

### 8.2 Exposure Controls

| | | |
|---|---|---|
| Proper engineering control | : | Ensure good ventilation of the work place. Before entering the storage, tank and start any operation in a confined area (eg. tunnels), check the oxygen content, the presence of hydrogen sulfide (H2S) and $SO_x$, and the nature of the flammable (*flammability*). See also Section 16, "Other Information". |
| Personal protective equipment (for industrial or professional use) | : | Face shields, gloves, protecting cloth, safety glasses, safety shoes, dust/aerosol mask. |
| Hand protection | : | When there is a risk of contact with skin, wear gloves that are resistant to hydrocarbons. Adequate material: nitrile (NBR) or PVC with a protection index > 5 (permeation time > 240 minutes). Use gloves that are suitable for all conditions and within the limits specified by the manufacturer. Immediately replace gloves if tear, holes or other signs of damage or degradation. If necessary, refer to standard EN 374. Personal hygiene is a key element for effective hand care. Gloves should be worn only with clean hands. After wearing gloves, hands should be washed and dried carefully. |
| Eye protection | : | When there is a risk of contact with eyes, wear goggles or other protective equipment (face shield). If necessary, refer to the national standard or standard EN 166. *Emergency eye wash* and *emergency shower* should be available in the vicinity of potential exposure. |
| Skin and body protection | : | Wear overall/ long sleeve wearpack. If necessary, see EN 340 and related standards, for definition of characteristics and performance according to the risk assessment of the area.<br>*Antistatic non-skid safety shoes or boots*, chemical resistant, if necessary, heat resistant and insulated. |
| Respiratory protection | : | Independent of other possible measures (technical modifications, operating procedures, and other means of limiting worker exposure), PPE can be used as needed. Open space or well-ventilated: if product is handled without adequate containment: use full or half face mask with adequate filter for organic vapors. (EN 136/140/145). Combined filter set (DIN EN 141). Approved respiratory protective equipment should be used in spaces where hydrogen sulphide may accumulate: full face mask with cartridge / filter type "B" (gray for inorganic vapors including H2S) or self-contained breathing apparatus (SCBA). (EN 136/140/145). Closed or confined areas (eg tank interior): use of protective measures for the airways (masks or breathing apparatus), should be assessed according to the specific activity, and the predicted level and duration of exposure. (EN 136/140/145) |
| Heat hazard protection | : | None under conditions of normal use |
| Protection of exposure to the environment | : | Do not release product into the environment. Storage areas/ installations must be designed with sufficient bund walls to prevent contamination of soil and water in the event of a leak or spill. Prevent disposal/ recovery of undissolved substances into or from the waste water. Waste water treatment plant is required. Do not apply industrial sludge to the ground. Sludge must be burned, collected or reclaimed. |

## Section 9 : Physical and Chemical Properties

| | | |
|---|---|---|
| Physical state | : | Solid |
| Smell | : | Specified |

| | | |
|---|---|---|
| Color | : | Yellow brown |
| pH | : | There are no data available on the preparation/mixture itself |
| Relative evaporation rate (butylacetate=1) | : | No data available |
| Melting point | : | No data available |
| Freezing point | : | No data available |
| Boiling point | : | No data available |
| Flash point | : | > 200 °C (base oil) (ASTM D 93) |
| Auto ignition temperature | : | No data available |
| Flammability (solid, gas) | : | No data available |
| Vapour pressure | : | No data available |
| Relative density | : | No data available |
| Viscosity, kinematic | : | 220 mm²/s (40°C, base oil) (ASTM D 445) |
| Explosive properties | : | None |
| Explosive limits | : | No data available |
| Penetration | : | 370 dmm ((25°C) (ASTM D 217), Class NLGI: 0) |
| Drop point / drop range | : | 180°C (ASTM D 566) |

## Section 10 : Stability and Reactivity

| | | |
|---|---|---|
| Reactivity | : | This mixture does not result in further danger associated reactivity, except what is reported in the following paragraphs. |
| Stability | : | The product is stable, according to its intrinsic properties (under normal conditions of storage and handling). |
| Possible hazardous reactions | : | None (under normal conditions of storage and handling). Contact with strong oxidizing agents (peroxides, chromates, etc.) creates a fire hazard. Sensitivity to heat, friction or shock cannot be predicted in advance. |
| Conditions to avoid | : | Keep away from open flames, hot surfaces and sources of ignition. Avoid static discharge buildup. |
| Materials to avoid | : | Strong oxidizing agent |
| Hazardous decomposition products | : | In normal conditions of storage and use, the decomposition products are dangerous should not be produced. Thermal decomposition may generate carbondioxide, carbon monoxide and toxic fumes. In exceptional cases (eg. long storage period in tanks of contaminated water, and the presence of anaerobic sulfate-degrading microbial colonies), the product can be degraded and generate small amounts of sulfur compounds, including H2S. See also Section 16, "Other Information". |

## Section 11 : Toxicological Information

| | | |
|---|---|---|
| Acute toxicity | : | Not classified (Based on available data, the classification criteria are not met). |
| Skin corrosion / irritation | : | Not classified (Based on available data, the classification criteria are not met). |
| Serious eye damage / eye irritation | : | Not classified (Based on available data, the classification criteria are not met). |
| Respiratory or skin sensitization | : | Not classified (Based on available data, the classification criteria are not met). |
| Germ cell mutagenicity | : | Not classified (Based on available data, the classification criteria are not met). |

| | | |
|---|---|---|
| Carcinogenicity | : | Not classified (Based on available data, the classification criteria are not met). |
| Reproductive toxicity | : | Not classified (Based on available data, the classification criteria are not met). |
| Specific target organ toxicity after a single exposure | : | Not classified (Based on available data, the classification criteria are not met). |
| Specific target organ toxicity after repeated exposure | : | Not classified (Based on available data, the classification criteria are not met). |
| Aspiration hazard | : | Not classified (Based on available data, the classification criteria are not met). |
| Potential adverse human health effects and symptoms | : | Contact with eyes can cause temporary redness and irritation |
| Other Information | : | None |

## Section 12 : Ecological Information

### 12.1 Toxicity

| | | |
|---|---|---|
| Ecology - General | : | Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Uncontrolled release to the environment can result in contamination of different environmental compartments (air, soil, underground, surface water bodies, aquifers). Handle in accordance with general hygienic work practice to avoid pollution and release to the environment. Notify authorities if product enters sewers or public waters. |
| Ecology - Air | : | This product has a low vapor pressure. Significant exposure can occur only if the product is used at high temperatures, or in the case of sprays and mists. |
| Ecology - Water | : | This product is insoluble in water. The product floats and forms a film on the surface of the water. Damage to aquatic organisms occurs through mechanical processes (immobilization and entrapment). Harmful to aquatic life. |

### 12.2 Persistence and Degradability

| | | |
|---|---|---|
| Persistence and Degradability | : | The most significant constituents of the product should be considered as "inherently biodegradable", but not "biodegradable," and they may be somewhat persistent, especially under anaerobic conditions. |

### 12.3 Bioaccumulative potential

| | | |
|---|---|---|
| Bioaccumulative potential | : | Not defined |

### 12.4 Mobility in soil

| | | |
|---|---|---|
| Ecology - Soil | : | Data not available |

### 12.5 Results of PBT and vPv assessment B

| | | |
|---|---|---|
| Results of PBT and vPvB assessments | : | The components in this formulation do not meet the classification criteria as PBT (Persistent, Bioaccumulating and Toxic) or vPvB (very Persistent and very Bioaccumulating). Product should be considered carefully as "persistent" in the environment, in accordance with REACH criteria annex XIII (point 1.1) |

### 12.6 Other adverse effects

| | | |
|---|---|---|
| Other detrimental effects | : | None |
| Additional information | : | This product does not have special properties to inhibit bacterial activity. In any case, wastewater containing this |

product must be treated in a suitable factory for the specific purpose.

## Section 13 : Disposal Considerations

| | | |
|---|---|---|
| Waste treatment methods | : | Do not throw your product, whether new or used into sewers, tunnels, lakes or streams. Send to qualified official collectors. Dispose of empty and waste containers safely. |
| Waste disposal recommendations | : | Dispose of in a safe manner according to local / national regulations. Do not apply industrial sludge to natural soils. Sludge must be burned, collected or reclaimed. |
| Product packaging disposal recommendations | : | The drum must be empty, labeled and returned to the supplier or party who has permission to recondition the drum waste. Metal and plastic packaging that is not contaminated with the product can be recycled if possible, or disposed of as domestic waste. |
| European waste catalog code | : | 13 02 05 (Ref.2001/118 / CE) |
| Indonesian waste catalog code | | B105d (PP No.101/2014) |

## Section 14 : Transportation/ Freight Information

| ADR | IMDG | IATA | ADN | RID | Indonesia |
|---|---|---|---|---|---|
| **UN No** | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **UN-compliant shipping names** | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **Transport Hazard Class** | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **Packing Group** | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |
| **Environmental Hazards** | | | | | |
| Not regulated | Not regulated | Not regulated | Not regulated | Not regulated | Not regulated |

**Special precautions for user**

| | | |
|---|---|---|
| Land transportation | : | Not regulated |
| Water transportation | : | Not regulated |
| Air Transport | : | Not regulated |
| Inland water transportation | : | Not regulated |
| Rail transport | : | Not regulated |

## Section 15 : Regulatory Information

**Regulations concerning safety, health and the environment**

| | | |
|---|---|---|
| Regulation of the Minister of Industry Number 23 of 2013 | : | Amendment to the Ministerial Decree No. 87 Year 2009 about Globally Harmonized System of Classification and Labeling on Chemicals. |
| Republic of Indonesia Government Regulation Number 74 of 2001 | : | Management of Hazardous and Toxic Materials |

| | | |
|---|---|---|
| Minister of Manpower Decree No. 187 of 1999 | : | Control of Hazardous Chemicals |

## Section 16 : Other Information

| | | |
|---|---|---|
| SDS creation date | : | 22/12/2023 |
| SDS revision date | : | - |
| Reason for revision | : | - |
| Abbreviations | : | ACGIH - American Conference of Governmental Industrial Hygienists<br>ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways<br>ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road<br>PPE - Personal Protective Equipment<br>ASTM - American Standard Testing and Material<br>CAS - Chemical Abstracts Service<br>CLP - Classification Labeling Packaging<br>GHS - Globally Harmonized System<br>IATA - International Air Transport Association<br>IMDG - International Maritime Dangerous Goods<br>SDS - Safety Data Sheet<br>No. UN - United Nations number (used for transportation classification)<br>RID - Regulation concerning the International Carriage of Dangerous Goods by Railways<br>STEL - Short Term Exposure Limit<br>SCBA - Self Contained Breathing Apparatus<br>TLV - Threshold Limit Value<br>TWA - Time Weighted Average |
| Data source | : | This SDS is based on the real characteristics of the components and their combinations, taking into account the information provided by the supplier. |
| Training advice | : | Provide adequate training to professional operators for the use of PPE, according to the information contained in this SDS. |
| Other information | : | Do not use the product for any purpose that the manufacturer has not recommended. In exceptional cases (eg. excessive storage of contaminated water in the tank, and the presence of anaerobic sulfate-degrading microbial colonies), the product may be degraded and generate small amounts of sulfur compounds, including H2S. The situation is particularly relevant in all circumstances require to enter confined spaces, by direct exposure to vapors. If there is suspicion of inhaling H2S (hydrogen sulfide), Rescuers should wear a breathing apparatus, belt and harness, and follow rescue procedures. Send the patient to the hospital. Start artificial respiration immediately if breathing stops. Give oxygen if necessary. This situation is particularly relevant for operations involving direct exposure to vapors inside tanks or other confined spaces. If this possibility is suspected, a specific inhalation risk assessment of the presence of H2S in confined spaces should be carried out, to help determine preventive and control |

measures (eg. PPE) according to local circumstances, and appropriate emergency procedures.

*This information is based on our current knowledge and is intended to describe the product for health, safety and environmental requirements only. Therefore it should not be construed as guaranteeing any particular item of the product.*