SAFETY DATA SHEET

eni Grease MU EP 2

Effective date: 02/05/2024 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 2
Product form	:	Mixture
Product code	:	-
Types of products	:	Lubricants Grease
Formula	:	-
CAS number	:	Not specified

1.2 Relevant identified uses

Main use category	:	Use for industry, professionals, consumers
Industrial / professional use specifications	:	Used in a closed system Wide dispersive use
Use of the substance / mixture	:	General purpose lubricant ---- 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 I ndonesia
Emergency phone number	:	(+62) 0343 - 853308
Licensor	:	E ni SpA Via le Giorgio Ribotta, 51 00144 Rom A - I Talia

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	:	Contact with eyes can cause temporary redness and irritation. Harmful to aquatic life with long lasting effects. For specific information on the toxicological / ecotoxicological properties and classification of this product, see Sections 11 and / or 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. Prolonged and repeated skin contact may cause reddening, irritation and dermatitis. In case of contact with

eyes, this product may cause irritation. Ingestion may cause nausea, vomiting and diarrhea. May cause long-term adverse effects in the environment

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
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	85940-28-9	>= 1,5 < 2

(*)
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 victim to fresh air, keep victim warm and rest. If breathing is difficult, give oxygen if possible, or assist with ventilation. If necessary, give external cardiac massage and get medical advice. See also Section 4.3.

First-aid measures after skin contacts : Take off contaminated clothing and shoes. Wash the skin with soap and water. If skin irritation occurs, d apatkan advice / medical attention. In case of contact with hot product, cool the affected area with plenty of cold water, and cover with gauze or clean. Call the doctor or take him to the hospital. Do not use ointments unless recommended by a doctor. Body hypothermia must be avoided. Do not put ice on the burn.

First aid measures after eye contact : Remove contact lenses, if present and easy to do. Rinse eyes thoroughly for at least 15 minutes. Keep eyelids well. If irritation persists, get medical help. In case of contact with hot product, cool the affected area with plenty of cold water, and cover with gauze or clean. Call the doctor or take him to the hospital. Do not use ointments unless directed by your doctor.

First aid measures after swallowing : 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 / injuries (general indication)	:	Not expected to present a significant hazard in a state that has been anticipated in normal use.
Symptoms/ effects after inhalation	:	This product has a low vapor pressure, and under normal conditions at ambient temperature the concentration in air is negligible. The concentration can significantly increase only if the product is used at high temperatures, or in the case of sprays and mists. In this case, excessive exposure to vapors can cause irritation of the airways, nausea and dizziness.
Symptoms/ effects after skin contact	:	Contact with hot products can cause thermal burns.
Symptoms/ effects after eye contact	:	Contact with eyes can cause redness and irritation. Contact with hot products or vapours may cause burns.
Symptoms/ effects after swallowing	:	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

Get medical help if the victim has a change in consciousness or if symptoms do not improve. If inhalation is suspected. H_2S (hydrogen sulfide). The victim must be sent to the hospital immediately. Start artificial respiration immediately if breathing stops. Give oxygen if necessary.

Section 5 : Fire Fighting Measures

5.1 Extinguishing media

Extinguishing media an appropriate	:	Small fires: carbon dioxide, dry chemical, foam, sand or soil. Large fires: foam or water mist (*water spray*). These facilities should be used by trained personnel only. Other extinguishing gases (according to regulations).
Extinguishing media an improper	:	Do not use water jets (high pressure water) as this can cause sparks and spread the fire. Using foam and water together on the same surface should be avoided as water can destroy the foam

5.2 Special hazards arising from the substance or mixture

Fire hazard	:	This product is flammable, but is not classified as a combustible material. The formation of a flammable vapor mixture takes place at temperatures higher than the normal ambient temperature.
Explosion hazard	:	The vapors are flammable and can form explosive mixtures with air.
Combustion products	:	Incomplete combustion is likely to result in a complex mixture of solid and liquid particles , gases, including carbon monoxide, NO_x, H_2S and SO_x (hazardous / toxic gases), oxygenated compounds (aldehydes, etc.), CaO_x, ZnO_x, PO_x.

5.3 Advice for firefighters

Fire fighting instructions	:	Turn off the source of the product, if possible. Unburned spilled product must be covered with sand or foam. If possible, move containers and drums away from hazard areas. Use water spray to cool containers and exposed surfaces. If the fire cannot be controlled, evacuate the area.

Special protective equipment for firefighters	:	PPE for firefighters (see also Section 8). EN 443. EN 469. EN 659. In case of a major fire or in an enclosed or poorly-ventilated space, wear full fire-resistant protective clothing and fully-cut self-contained breathing apparatus (SCBA) which is operated in positive pressure mode.
Other information	:	In case of fire, do not dispose of residual products, waste material and runoff: collect separately and use appropriate 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	:	Do not allow the product to accumulate in confined spaces or underground. Do not allow product to flow into drains or water courses, or in any way that could contaminate the environment. In case of contamination of environmental compartments (soil, subsoil, surface or underground water), remove contaminated soil whenever possible, and in any case treat all compartments involved in accordance with local regulations. The site shall have a spill plan in place to ensure that adequate safeguards are in place to minimize the impacts of episodic releases.
Methods and materials for containment and cleaning	:	Resist spilled liquid with sand, soil or other suitable (non-flammable) absorbent material. Reclaim liquid and waste-free materials in suitable water-resistant and oil-resistant containers. Clean the contaminated area. Dispose of according to local regulations. If in water: limit spillage, clean off surface of water with suitable skimming or absorbent. Collect products and other waste materials that are recovered (recover) in an oil and water resistant container. Recover or dispose of in accordance with local regulations. Do not use solvents or dispersants, unless specifically advised by a specialist, and, if required, approved by local authorities. Transfer products and other materials recovered to the tank or suitable container and store/ dispose in accordance with the relevant regulations.
With regard to other sections	:	See Sections 8 and 13 for more information

Section 7 : Handling and Storage

7.1 Precautions for safe handling

Precautions for safe handling	:	Ensure that proper housekeeping measures are in place. Keep away from heat / sparks / open flames / hot surfaces. Use and store only outdoors or in a well-ventilated area. Ensure good ventilation of the work place. Due to the nature of this material are very slippery, more than usual care should be made in the material handling practices to avoid any surface where run. Floors, walls and other surfaces in hazard areas should be cleaned regularly. Before entering the storage tank and starting any operation in a confined area (eg. tunnels), carry out adequate cleaning, and check for oxygen content, flammability and presence of sulfur compounds. This

		product can release H_2S : a special assessment of the inhalation risk of the presence of H_2S in the tank headroom, confined spaces, product residues, tank waste and wastewater, and accidental releases should be carried out to help determine appropriate controls according to local circumstances .
Handling temperature	:	This product can be handled at room temperature.
Hygienic measures	:	Do not drink, eat or smoke with dirty hands. Wash your hands before going to the toilet. Do not clean your hands with a dirty or oil-soaked cloth. Change clothes if they are dirty or wet at the end of a work change. Wash hands with soap and water, do not use solvents or other irritant products which have a dry effect on the skin.

7.2 Conditions for safe storage, including incompatibilities

Storage conditions	:	Store in a dry, well-ventilated area. Keep away from open flames, hot surfaces and sources of ignition. Do not smoke.
Incompatible products	:	Strong oxidizing agent
Storage area	:	Storage area layout, tank design, equipment and operating procedures must comply with relevant European, national or local legislation. Storage installations must be designed with sufficient bunds to prevent contamination of soil and water in the event of a leak or spill. Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by personnel who are competent (qualified) and equipped with adequate equipment such as that set by national legislation, local or enterprise.
Package and container	:	If the product is supplied in containers: store the container in a state tightly closed and given an appropriate label. Store only in the original container or in a container suitable for this type of product.
Packaging material	:	For containers, or container linings, use materials specifically approved for use in this product. Compatibility must be checked by the manufacturer.

Section 8 : Exposure Control / Personal Protection

8.1 Control Parameters

Threshold Value (NAV)	:	ACGIH TLV-TWA = 5 mg/ m^3 (mineral oil mist). 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 (H_2S) 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. *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 H_2S) 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	:	Viscous liquid.
Smell	:	Specified
Color	:	Dark-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	:	7,8 mm ² / s (10 0 ° C) (ASTM D 445)
Boiling point	:	Insoluble in water
Flash point	:	> 200 °C (base oil) (ASTM D 445)
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	:	275 dmm ((25°C) (ASTM D 217), Class NLGI: 2)
Drop point / drop range	:	220°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 H_2S. 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	:	02/05/2024
SDS revision date	:	-
Reason for revision	:	-
Abbreviations	:	ACGIH - American Conference of Governmental Industrial Hygienists ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road PPE - Personal Protective Equipment

ASTM - American Standard Testing and Material

CAS - Chemical Abstracts Service

CLP - Classification Labeling Packaging

GHS - Globally Harmonized System

IATA - International Air Transport Association

IMDG - International Maritime Dangerous Goods

SDS - Safety Data Sheet

No. UN - United Nations number (used for transportation classification)

RID - Regulation concerning the International Carriage of Dangerous Goods by Railways

STEL - Short Term Exposure Limit

SCBA - Self Contained Breathing Apparatus

TLV - Threshold Limit Value

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 H_2S. The situation is particularly relevant in all circumstances require to enter confined spaces, by direct exposure to vapors. If there is suspicion of inhaling H_2S (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 H_2S 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.