SAFETY DATA SHEET

eni OTE 4ID (ISO VG 46)

Effective Date: 01/04/2024 Version: 1.2 Validity Period: 5 Years

Section 1: Material / Mixture and Supplier Identification

1.1 Identifier product

Product name	:	eni OTE 4ID (ISO VG 46)
Product shape	:	Mixture
Product code	:	ID117
Types of products	:	Lubricants
Formula number	:	-
CAS number	:	Not specified

1.2 Use of the substance / mixture that has been identified

Main use category	:	Industrial use, professional use
Industrial / professional use specifications	:	Used in a closed systems Non-dispersive use
Use of the substance / mixture	:	Lubricants for gears Lubricants for turbines ---- 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 safety data sheet

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

Section 2: Hazards Identification

2.1 Classification of the substance / mixture

Classification according to GHS	:	Not classified according to Regulation (EC) No. 1272/2008 (EU-GHS/CLP)
Adverse physicochemical, human health and environmental effects	:	Contact with eyes may cause temporary reddening and irritation. Harmful to aquatic life with long-term effects. 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 statements	:	EUH210 – Safety data sheet available on request
Signal words	:	None
General advice	:	None to be reported

2.3 Other hazards (not related to classification)

Physical/chemical	:	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.
Health	:	If the product is handled or used at high temperature, contact with hot product or vapours may cause burns, Any substance, in case of accidents involving pressurized circuits and the like, may be accidentally injected under the skin, even without external damage. In such a case, the victim should be brought to an hospital as soon as possible, to get specialized medical treatment.
Environment	:	None
Contaminants (air contaminants or other substances)	:	In exceptional cases (i.e prolunged storage in tanks contaminated with water, and presence of anaerobic sulfate-reducing microbial colonies), the product may undergo a degradation and generate small amounts of sulfur compounds, including H2S,See Heading 16

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 / Content Information

3.1 Substances

NA

3.2 Mixtures

Composition / information content : Hydrocarbon mixture
Additives / additives

Composition table:

Chemical name	No. CAS	% by weight
Mineral base oil, severely refined (*)	Mixture	≥ 99
Hydroxyalkyl carboxylic acid	Confidential	0.024 – 0.028

(*) 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.

Section 4 : First Aid Measures

4.1 Description of first aid measures

First aid measures after inhalation	:	In case of disturbances owing to inhalation of vapors or mists, remove the victim from exposure; keep at rest; if necessary, seek medical attention. See also section 4.3.
First aid measures after skin contact	:	Take off contaminated clothing and shoes. Wash the skin with soap and water. If skin irritation occurs, get medical advice / attention. In case of contact with hot products, 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.
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 or 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 The most important symptoms and effects, both acute and delayed

Symptoms / injuries (general indication)	:	It is not expected to present a significant hazard under the conditions anticipated for 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 burns.
Symptoms / effects after eye contact	:	Contact with eyes can cause redness and irritation. Contact with hot products or steam can cause burns.
Symptoms / effects after swallowing	:	Sometimes small amounts of products that are swallowed can cause irritation, nausea and gastric upset. Pay attention to the taste of the product, although there is very little chance that harmful amounts will be ingested.
Symptoms / effects on intravenous administration	:	No information available.
Chronic symptoms	:	Nothing was reported, according to the current classification criteria.

4.3 An indication that needs 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 of H2S (hydrogen sulfide) is suspected. 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 mediaappropriate	:	Small fires: carbon dioxide, dry chemical, foam, sand or soil. Large fires: foam or water spray (mist). These facilities should be used by trained personnel only. Other extinguishing gases (according to regulations).
Extinguishing media that doesn't fit	:	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 combustible, but is not classified as a flammable material. The formation of a flammable vapor mixture takes place at temperatures higher than the normal ambient temperature.
Explosion hazard	:	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, NOx, H2S and SOx (hazardous / toxic gases), oxygenated compounds (aldehydes, etc.).

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 product, waste material and runoff: collect separately and use appropriate treatment.

Section 6 : Accidental Actions of Release

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 (eg electricity, sparks, fire, flares). Avoid accidental spraying on hot surfaces or electrical contacts. Avoid direct contact with removed material (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 up	:	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 water with suitable skimming or absorbent (absorbent material). Collect products and other waste materials that are recovered (recover) in an oil and water resistant container. Recover (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 recovered products and other materials to a suitable tank or container and store / dispose of according to relevant regulations.
Other information	:	Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. Local regulations may also prescribe or limit actions to be taken. For this reason, local experts should be consulted when necessary.

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 extremely slippery nature of this material, more care must be taken in material handling practices to avoid all walking surfaces. 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 H2S: specific assessment of the inhalation risk of the presence of H2S in the headroom of the tank, confined spaces, product residues, tank effluents and wastewater, and accidental releases should be carried out to help determine controls appropriate 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 job 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 adequate bunds to prevent contamination of soil and water in the event of a leak or spill. Cleaning, inspection and maintenance of the internal structure of storage tanks should be carried out only by competent (qualified) personnel and properly equipped as required by national, local or company regulations.
Package and container	:	If product is supplied in containers: keep container tightly closed and properly labeled. 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.

7.3. Specific end use(s)

No information available.

Section 8 : Exposure Control / Personal Protection

8.1 Control Parameters

Threshold Value (NAV)	:	ACGIH TLV-TWA = 5 mg / m3 (mineral oil mist). ACGIH TLV-STEL = 10 mg / m3 (mineral oil mist).

8.2 Exposure Control

Proper engineering control	:	Ensure good ventilation of the work place. Before entering the storage tank and starting any operation in a confined area (eg tunnels), check the oxygen content, presence of hydrogen

sulfide (H2S) and SOx, and flammability. See also Section 16, "Other Information".

Personal protective equipment (for industrial or professional use)	:	Face protection gloves, protective clothing, safety glasses. safety shoes (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 tears, 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 overalls / long sleeve wearpacks. If necessary, refer to EN 340 and associated 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 sulfide can accumulate: full face mask with type "B" cartridge / filter (gray for inorganic vapors including H2S) or self-contained breathing apparatus (SCBA). (EN 136/140/145). Confined or closed areas (e.g. tank interior): use of protective measures for 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 (recovery) of undissolved substances into or from the waste water. A wastewater 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

Shape	:	Liquid, Bright & Clear (ASTM D 4176/1)
Smell	:	Specific
Color	:	Not specified
Specific gravity	:	861 kg / m3 (15 ° C) (ASTM D 1298)
Boiling point / boiling range	:	> 200 ° C (at 10 mmHg) (ASTM D 1160)
Steam pressure	:	1.10-3 hPa (20 ° C)
Kinematic viscosity	:	45.0 mm2 / s (40 ° C) (ASTM D 445)
Water solubility	:	Insoluble in water
pH	:	Not applicable
Flash point	:	230 ° C (ASTM D 92)
Automatic ignition temperature	:	> 300 ° C (DIN 51794)
Lower explosion limit	:	Not specified
Upper explosion limit	:	Not specified
Partition coefficient (Po / w)	:	Not specified

Section 10 : Stability and Reactivity

Reactivity	:	This mixture does not produce any further hazards related to reactivity, except what is reported in the following paragraph.
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	:	Under conditions of normal storage and use, hazardous decomposition products should not be produced. Thermal decomposition can produce carbon dioxide, carbon monoxide and toxic fumes. In exceptional cases (eg prolonged storage in tanks contaminated with water, and presence of anaerobic sulfate decomposition microbial colonies), the product can degrade and produce 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 vPvB assessments

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 detrimental 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 a specific purpose.

Section 13 : Disposal Considerations

Waste treatment methods

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 Codes	:	13 02 05 (Kep. 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 applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
UN-compliant shipping name					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Transport Hazard Class					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
***Group* Packaging**					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable
Environmental Hazards					
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

Special precautions for users

Land transportation	:	Not applicable
Water transportation	:	Not applicable
Air Transport	:	Not applicable
Inland water transportation	:	Not applicable
Rail transport	:	Not applicable

Section 15 : Regulatory Information

15.1 Safety, health and environmental regulations

Regulation of the Minister of Industry Number 23 of 2013	:	Amendment to the Regulation of the Minister of Industry Number 87 of 2009 concerning the Global Harmonized System of Classification and Labeling of 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	:	11/03/2016
SDS revision date	:	01/04/2024
Reason for revision	:	Change of product name format
Abbreviations and acronyms	:	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 excess storage in tanks contaminated with water, and presence of anaerobic sulfate decomposition microbial colonies), the product may degrade and produce small amounts of sulfur compounds, including H2S. This situation is particularly relevant in all circumstances requiring entry of confined spaces, with 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. Immediately initiate artificial respiration 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 a confined space should be carried out, to help determine prevention 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