



Eni OSO 46 FF

Material number 628

Safety Data Sheet

according to Regulation (EC) No 1907/2006 (REACH) and Regulation (EU) 2020/878

Revision date: 20.3.2024
Version: 8.0
Replaces version: 7.1
Language: en-DE
Date of print: 4.4.2024

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Eni OSO 46 FF

1.2 Relevant identified uses of the substance or mixture and uses advised against

General use: Hydraulic oil, Functional fluids

1.3 Details of the supplier of the safety data sheet

Company name: Enilive Schmiertechnik GmbH

Street/POB-No.: Paradiesstraße 14

Postal Code, city: 97080 Würzburg

Germany

E-mail: info.wuerzburg@enilive.com

Telephone: +49 (0)931-90098-0

Telefax: +49 (0)931-98442

Department responsible for information:

Application Engineering & Product Management (AEPM)

Telephone: +49 (0)931-90098-0

E-mail: technik.wuerzburg@enilive.com

1.4 Emergency telephone number

GIZ-Nord, Göttingen

Telephone: +49 (0)551-19240

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This mixture is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: not applicable

Special labelling

EUH210

Safety data sheet available on request.

2.3 Other hazards

Eye contact may cause irritation, redness, tearing or blurry vision.

Information about Hydrogen sulphide: Fatal if inhaled.

Hot product can cause severe burns.

Special danger of slipping by leaking/spilling product.

Endocrine disrupting properties, Results of PBT and vPvB assessment:

The product does not contain any substances classified as PBT or vPvB.



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SECTION 3: Composition/information on ingredients

3.1 Substances: not applicable

3.2 Mixtures

Chemical characterisation: A mixture of mineral oil and additives.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

General information:	If medical advice is needed, have product container or label at hand. Take off contaminated clothing and wash it before reuse.
In case of inhalation:	Remove person to fresh air and keep comfortable for breathing. Move victim to fresh air; if necessary, provide artificial respiration or oxygen. In the event of discomfort seek medical treatment.
Following skin contact:	Immediately clean with water and soap followed by thorough rinsing. In case of skin reactions, consult a physician.
After eye contact:	Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.
After swallowing:	Rinse mouth with water. Never give anything by mouth to an unconscious person. Do not induce vomiting. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

Processing vapours can irritate the respiratory tracts, skin and eyes.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
It can take hours before symptoms of poisoning show up following exposure.
In case of inhalation (hydrogen sulfide): Take to a hospital immediately.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:

Water spray jet, foam, extinguishing powder, Sand, carbon dioxide.
In case of large fires: Water spray jet, foam

Extinguishing media which must not be used for safety reasons:

Full water jet

5.2 Special hazards arising from the substance or mixture

Combustible.
May form dangerous gases and vapours in case of fire.
Furthermore, there may develop: Pyrolysis products, sulphur oxides, Hydrogen sulphide, Nitrogen oxides (NOx), aldehydes, Carbon monoxide and carbon dioxide.



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5.3 Advice for firefighters

Special protective equipment for firefighters:

Wear self-contained positive pressure breathing apparatus and full firefighting protective clothing.

Additional information:

Cool endangered containers with water jetspray. Move undamaged containers from immediate hazard area if it can be done safely.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Do not breathe mist/vapours/spray. Avoid oil mist formation. Provide adequate ventilation. Eliminate all ignition sources if safe to do so. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Avoid contact with skin, eyes, and clothing. Keep unprotected people away.

6.2 Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

6.3 Methods and material for containment and cleaning up

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Make sure spills can be contained, e.g. in sump pallets or kerbed areas.

Never return spills in original containers for re-use.

Clean contaminated articles and floor according to the environmental legislation.

Additional information:

Special danger of slipping by leaking/spilling product.

6.4 Reference to other sections

Refer additionally to section 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling:

Provide adequate ventilation, and local exhaust as needed. Avoid oil mist formation. Do not breathe mist/vapours/spray. Do not get in eyes, on skin, or on clothing. Wear appropriate protective equipment. Take off contaminated clothing and wash it before reuse. Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling. Don't put cleaning rags fouled by oil into trousers pockets.

Precautions against fire and explosion:

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Take action to prevent static discharges.



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7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Store container tightly closed in a dry and cool place.
Store only in original container.
Make sure spills can be contained, e.g. in sump pallets or kerbed areas.
Protect from heat and direct sunlight.

Hints on joint storage: Keep away from food, drink and animal feedingstuffs.
Do not store together with: Strong oxidizing agents.

Storage class: 10 = Combustible liquids, unless storage class 3

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Additional information: Contains no substances with occupational exposure limit values.

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Personal protection equipment

Occupational exposure controls

Respiratory protection: Use combination filter type A/P according to EN 14387.
Approved respiratory protection equipment shall be used in spaces where hydrogen sulfide may accumulate. full face mask (EN 136) with filter type B.
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product.

Hand protection: Protective gloves according to DIN EN 374 (heat-resistant).
Glove material: nitrile rubber (NBR), PVC
Breakthrough time: ≥ 240 min Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Eye protection: Tightly sealed goggles according to DIN EN ISO 16321-1:2022.

Body protection: Wear suitable protective clothing.

General protection and hygiene measures:
Do not breathe mist/vapours/spray. Avoid oil mist formation. Take off contaminated clothing and wash it before reuse. Avoid contact with skin, eyes, and clothing.
Do not eat, drink or smoke when using this product. Wash hands thoroughly after handling.
Don't put cleaning rags fouled by oil into trousers pockets.

Environmental exposure controls

Refer to "6.2 Environmental precautions".



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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state at 20 °C and 101.3 kPa	liquid
Colour:	Yellow-brown, clear
Odour:	Characteristic
Odour threshold:	No data available
Melting point/freezing point:	Setting point -27 °C (ASTM D 97)
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Upper/lower flammability or explosive limits:	No data available
Flash point/flash point range:	238 °C (ASTM D 92)
Decomposition temperature:	No data available
pH:	No data available
Viscosity, kinematic:	at 40 °C: 46 mm ² /s (ASTM D 445)
Water solubility:	Insoluble, immiscible
Partition coefficient: n-octanol/water:	No data available
Vapour pressure:	at 20 °C: 0,1 hPa (ASTM D 5191, CONCAWE, 2010)
Density:	at 15 °C: 0,880 g/mL (ASTM D 4052)
Vapour density:	No data available
Particle characteristics:	Not applicable

9.2 Other information

Explosive properties:	Explosion limits (Aerosol): > 45 g/m ³
Oxidizing characteristics:	No data available
Auto-ignition temperature:	No data available
Evaporation rate:	No data available
Additional information:	No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

Refer to subsection "Possibility of hazardous reactions".

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4 Conditions to avoid

Keep away from heat sources, sparks and open flames.
Avoid electrostatic charging.

10.5 Incompatible materials

Strong oxidizing agents



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10.6 Hazardous decomposition products

Thermal decomposition: At elevated temperature: product may release Hydrogen Sulphide
No data available

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Toxicological effects: The statements are derived from the properties of the single components. No toxicological data is available for the product as such.

Acute toxicity (oral): Based on available data, the classification criteria are not met.

Acute toxicity (dermal): Based on available data, the classification criteria are not met.

Acute toxicity (inhalative): Based on available data, the classification criteria are not met.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Serious eye damage/irritation: Based on available data, the classification criteria are not met.

Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met.

Skin sensitisation: Based on available data, the classification criteria are not met.

Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met.

Carcinogenicity: Based on available data, the classification criteria are not met.

Reproductive toxicity: Based on available data, the classification criteria are not met.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Based on available data, the classification criteria are not met.

Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met.

Aspiration hazard: Based on available data, the classification criteria are not met.

11.2 Information on other hazards

Endocrine disrupting properties:

No data available

Other information:

Information about Distillates (petroleum), solvent-dewaxed heavy paraffinic:

LD50, Rat, oral: > 5.000 mg/kg (OECD 401)

LD50, Rabbit, dermal: 2.000 - 5.000 mg/kg (OECD 402)

LC50, Rat, inhalative: 3,9 - 5,3 mg/L/4h (OECD 403)

Information about mineral oil:

LD50, Rat, oral: > 5.000 mg/kg (OECD 401)

LD50, Rat, dermal: > 5.000 mg/kg (OECD 402)

LC50, Rat, inhalative: > 5 mg/L/4h (OECD 403)



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Symptoms

In case of inhalation:
Overheating released mist or vapours can irritate the respiratory tracts.
High concentrations may cause headaches, dizziness, nausea, change of behaviour, faintness, numbness and drowsiness.
In case of ingestion: Nausea, discomfort, gastrointestinal complaints
After contact with skin: The hot material can cause burns.
After eye contact: Direct contact may cause skin and eyes reddening and irritation.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: Information about ENI OSO 46:
Daphnia toxicity:
EC50: > 100 mg/L (OECD 211)
Algae toxicity:
NOEC: 100 mg/L/21d
Information about Lubricating oils (petroleum), C24-50, solvent-extd., dewaxed, hydrogenated:
Fish toxicity:
LC50: > 100 mg/L/96h (OECD 203)
Daphnia toxicity:
EC50: > 10.000 mg/L/48h (OECD 202)
Information about mineral oil:
Fish toxicity:
LC50: > 100 mg/L (LL 50)
Daphnia toxicity:
EC50: > 10.000 mg/L/48h (OECD 202)
Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)

12.2 Persistence and degradability

Further details: Biodegradation: 31 %/28 d (Exxon, 1995).
According to OECD criteria the product is not readily biodegradable but inherently biodegradable.

12.3 Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

12.4 Mobility in soil

No data available

12.5 Results of PBT and vPvB assessment

The product does not contain any substances classified as PBT or vPvB.

12.6 Endocrine disrupting properties

No data available



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12.7 Other adverse effects

General information: Product is not soluble in water, and floats on water.
Do not allow to enter into surface water or drains.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 13 02 05* = Mineral-based non-chlorinated engine, gear and lubricating oils
* = Evidence for disposal must be provided.

Recommendation: Dispose of waste according to applicable legislation. Do not allow to enter into ground-water, surface water or drains.

Package

Recommendation: Dispose of waste according to applicable legislation. Handle contaminated packages in the same way as the substance itself.
Empty containers may contain flammable product residues. Do not cut, weld, bore, burn or incinerate emptied containers unless they have been cleaned and declared safe.
Empty containers should be disposed of in accordance with local regulations.

SECTION 14: Transport information

14.1 UN number or ID number

ADR/RID, ADN, IMDG, IATA-DGR:
not applicable

14.2 UN proper shipping name

ADR/RID, ADN, IMDG, IATA-DGR:
Not restricted

14.3 Transport hazard class(es)

ADR/RID, ADN, IMDG, IATA-DGR:
not applicable

14.4 Packing group

ADR/RID, ADN, IMDG, IATA-DGR:
not applicable

14.5 Environmental hazards

Dangerous for the environment:
Substance/mixture is not environmentally hazardous according to the criteria of the UN model regulations.

Marine pollutant - IMDG: no

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.



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14.7 Maritime transport in bulk according to IMO instruments

No data available

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

National regulations - Germany

Storage class: 10 = Combustible liquids, unless storage class 3

Water Hazard Class: 1 = slightly hazardous to water (Self-classification (mixture).)

Technical guidance air: 5.2.5

Information on working limitations:

Observe employment restrictions for young people.

Further regulations, limitations and legal requirements:

The product is not subject to the Chemicals Prohibition Ordinance (ChemVerbotsV).

National regulations - EC member states

Labelling of packaging with $\leq 125\text{mL}$ content

Hazard statements: EUH210 Safety data sheet available on request.

Precautionary statements: not applicable

Further regulations, limitations and legal requirements:

No data available

15.2 Chemical Safety Assessment

For this mixture a chemical safety assessment is not required.

SECTION 16: Other information

Reason of change: Changes in section 1: Details of the supplier of the safety data sheet

General revision

Date of first version: 8.8.2022

Department issuing data sheet:

see section 1: Department responsible for information



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Abbreviations and acronyms:

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
AS/NZS: Australian Standards/New Zealand Standards
CAS: Chemical Abstracts Service
CFR: Code of Federal Regulations
CLP: Classification, Labelling and Packaging
DIN: German Institute for Standardization
DMEL: Derived minimal effect level
DNEL: Derived no-effect level
EC: European Community
EC50: Effective Concentration 50%
EN: European Standard
EQ: Excepted quantities
EU: European Union
IATA: International Air Transport Association
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk
IMDG Code: International Maritime Dangerous Goods Code
LC50: Median lethal concentration
LD50: Lethal dose 50%
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
NF: French Standard
NOEC: No Observed Effect Concentration
OECD: Organisation for Economic Co-operation and Development
OSHA: Occupational Safety and Health Administration
PBT: Persistent, bioaccumulative and toxic
PNEC: Predicted no-effect concentration
PVC: Polyvinyl chloride
REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail
TRGS: Technical Rules for Hazardous Substances
vPvB: Very persistent and very bioaccumulative

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.

Most recent product information is available at:
<http://sumdat.net/2c6p9n6r>

