

SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)

Revision date: 27 Jan 2023

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Version: 1



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

1.1. Product identifier

Trade name/designation:

Mabanol Helium Hyd Eco Syn 46

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

Use of the substance/mixture:

Hydraulic fluids

1.3. Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor):

Mabanol GmbH & Co. KG

Koreastraße 7
20457 Hamburg
Germany

Telephone: 0049 (0) 40 36809988

E-mail: info@mabanol.com

Website: www.mabanol.com

E-mail (competent person): giznord@giz-nord.de

1.4. Emergency telephone number

Giftinformationszentrale Göttingen , 24h: 0049 (0) 551 1 92 40

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 [CLP]

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard components for labelling:

3-(O,O-Diisobutyldithiophosphoryl)-2-methylpropanoic acid

Supplemental hazard information

| | |
|--------|---|
| EUH208 | Contains 3-(O,O-Diisobutyldithiophosphoryl)-2-methylpropanoic acid. May produce an allergic reaction. |
| EUH210 | Safety data sheet available on request. |

2.3. Other hazards

No data available

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Hazardous ingredients / Hazardous impurities / Stabilisers:

| Product identifiers | Substance name Classification according to Regulation (EC) No 1272/2008 [CLP] | Concentration |
|----------------------|---|-----------------------|
| CAS No.: 268567-32-4 | 3-(O,O-Diisobutyldithiophosphoryl)-2-methylpropanoic acid Aquatic Chronic 3 (H412), Eye Dam. 1 (H318), Skin Sens. 1B (H317) Danger | 0.3 - < 1 weight-% |

Full text of H- and EUH-phrases: see section 16.

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SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

Following inhalation:

Remove casualty to fresh air and keep warm and at rest. When in doubt or if symptoms are observed, get medical advice.

In case of skin contact:

After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing. In case of skin irritation, consult a physician.

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

Following ingestion:

Do NOT induce vomiting. Rinse mouth thoroughly with water. Let water be drunken in little sips (dilution effect). Never give anything by mouth to an unconscious person or a person with cramps. When in doubt or if symptoms are observed, get medical advice.

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

Observe risk of aspiration if vomiting occurs.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

Foam. Extinguishing powder. Carbon dioxide (CO₂). Water spray jet.

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Burning produces heavy smoke.

Hazardous combustion products:

In case of fire: Gases/vapours, toxic.

5.3. Advice for firefighters

Do not inhale explosion and combustion gases. Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water. Co-ordinate fire-fighting measures to the fire surroundings.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Personal precautions:

Use personal protection equipment. Provide adequate ventilation. Special danger of slipping by leaking/spilling product. Avoid breathing dust/fume/gas/mist/vapours/spray. Keep away from sources of ignition - No smoking.

6.1.2. For emergency responders

Personal protection equipment:

Personal protection equipment: see section 8.

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6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Prevent spread over a wide area (e.g. by containment or oil barriers).

6.3. Methods and material for containment and cleaning up

For cleaning up:

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clean contaminated articles and floor according to the environmental legislation.

6.4. Reference to other sections

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Protective measures

Advices on safe handling:

Wear personal protection equipment (refer to section 8). Avoid: Generation/formation of mist. Do not breathe gas/fumes/vapour/spray.

Fire prevent measures:

Usual measures for fire prevention. Keep away from sources of ignition - No smoking.

Advices on general occupational hygiene

When using do not eat, drink or smoke. Avoid contact with eyes and skin. Wash hands before breaks and after work. Apply skin care products after work. Do not put any product-impregnated cleaning rags into your trouser pockets. Used working clothes should not be worn outside the work area. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures and storage conditions:

Keep container tightly closed in a cool, well-ventilated place. Only use containers specifically approved for the substance/product.

Hints on storage assembly:

Keep away from: Oxidizing agent.

Do not store together with: Food and feedingstuffs.

Storage class (TRGS 510, Germany): 10 - Combustible liquids that cannot be assigned to any of the above storage classes

Further information on storage conditions:

Temperature control required. Keep container tightly closed.

Protect against: Light. UV-radiation/sunlight. Air.

7.3. Specific end use(s)

No data available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Provide adequate ventilation.

8.2.2. Personal protection equipment



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Eye/face protection:

Safety goggles with side protection. In case of increased risk add protective face shield. DIN EN 166.

Skin protection:

Tested protective gloves must be worn (EN ISO 374).

Breakthrough times and swelling properties of the material must be taken into consideration. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Suitable protective clothing: flame-resistant.

Respiratory protection:

Usually no personal respiratory protection necessary.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn. Respiratory protection necessary at: exceeding exposure limit values. insufficient ventilation. aerosol or mist formation.

8.2.3. Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: light yellow

Odour: not determined

Safety relevant basis data

| Parameter | Value | at °C | ① Method ② Remark |
|--|-------------------------|-------|----------------------|
| pH | <i>not determined</i> | | |
| Melting point | <i>not determined</i> | | |
| Freezing point | <i>not determined</i> | | |
| Initial boiling point and boiling range | <i>not determined</i> | | |
| Decomposition temperature | <i>not determined</i> | | |
| Flash point | > 150 °C | | |
| Evaporation rate | <i>not determined</i> | | |
| Auto-ignition temperature | <i>not determined</i> | | |
| Upper/lower flammability or explosive limits | <i>not determined</i> | | |
| Vapour pressure | <i>not determined</i> | | |
| Vapour density | <i>not determined</i> | | |
| Density | 0.84 g/cm ³ | 15 °C | |
| Relative density | <i>not determined</i> | | |
| Bulk density | <i>not determined</i> | | |
| Water solubility | 0.85 g/L | 15 °C | |
| Partition coefficient: n-octanol/water | <i>not determined</i> | | |
| Dynamic viscosity | <i>not determined</i> | | |
| Kinematic viscosity | 43.8 mm ² /s | 40 °C | |
| Pour point | -36 °C | | |

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

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10.2. Chemical stability

The product is chemically stable under recommended conditions of storage, use and temperature.

10.3. Possibility of hazardous reactions

No known hazardous reactions.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

No information available.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

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

Acute oral toxicity:

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

Acute dermal toxicity:

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

Acute inhalation toxicity:

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.

Respiratory or skin sensitisation:

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

Germ cell mutagenicity:

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.

STOT-single exposure:

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

STOT-repeated exposure:

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

Aspiration hazard:

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

Additional information:

Frequently or prolonged contact with skin may cause dermal irritation.

11.2. Information on other hazards

Endocrine disrupting properties:

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Assessment/classification:

The product is not: Ecotoxic.

Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment.

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12.2. Persistence and degradability

Additional information:

The product is slightly soluble in water. It can be largely eliminated from the water by abiotic processes, e.g. mechanical separation.

12.3. Bioaccumulative potential

Accumulation / Evaluation:

The product has not been tested.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Endocrine disrupting properties

No information available.

12.7. Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Dispose of waste according to applicable legislation. Consult the appropriate local waste disposal expert about waste disposal. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

13.1.1. Product/Packaging disposal

Waste codes/waste designations according to EWC/AVV

Waste code product

| | |
|------------|---|
| 13 02 05 * | mineral-based non-chlorinated engine, gear and lubricating oils |
|------------|---|

*: Evidence for disposal must be provided.

Waste treatment options

Appropriate disposal / Product:

Consult the appropriate local waste disposal expert about waste disposal.

Appropriate disposal / Package:

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information

| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|--|--|--|--|
| 14.1. UN number or ID number | | | |
| No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. |
| 14.2. UN proper shipping name | | | |
| No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. | No dangerous good in sense of these transport regulations. |
| 14.3. Transport hazard class(es) | | | |
| not relevant | not relevant | not relevant | not relevant |
| 14.4. Packing group | | | |
| not relevant | not relevant | not relevant | not relevant |
| 14.5. Environmental hazards | | | |
| not relevant | not relevant | not relevant | not relevant |

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| Land transport (ADR/RID) | Inland waterway craft (ADN) | Sea transport (IMDG) | Air transport (ICAO-TI / IATA-DGR) |
|---|-----------------------------|----------------------|------------------------------------|
| 14.6. Special precautions for user | | | |
| not relevant | not relevant | not relevant | not relevant |

14.7. Maritime transport in bulk according to IMO instruments

not relevant.

SECTION 15: Regulatory information

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

15.1.1. EU legislation

Other regulations (EU):

Directive 2012/18/EU on the control of major-accident hazards involving dangerous substances [Seveso-III-Directive]: This product is not assigned to a hazard category.

Directive 2010/75/EU on industrial emissions [Industrial Emissions Directive]: No information available.

Directive 2004/42/EC on the limitation of emissions of volatile organic compounds: No information available.

Observe in addition any national regulations!

15.1.2. National regulations

[DE] National regulations

Störfallverordnung (12. BImSchV)

for substances contained in the product:

This product is not assigned to a hazard category.

for substances possibly developing during an incident:

This product is not assigned to a hazard category.

Water hazard class

WGK:

1 - schwach wassergefährdend

Remark:

Self-classification (mixture; calculation rule).

15.2. Chemical Safety Assessment

Chemical safety assessments for substances in this mixture were not carried out.

15.3. Additional information

Water hazard class (WGK): 1 (slightly hazardous to water).

SECTION 16: Other information

16.1. Indication of changes

No data available

16.2. Abbreviations and acronyms

ACGIH: American Conference of Governmental Industrial Hygienists

ADR: Accord européen sur le transport des marchandises dangereuses par Route (International Carriage of Dangerous Goods by Road)

AwSV: Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen

CAS Chemical Abstracts Service

DNEL: Derived No Effect Level

IARC: INTERNATIONAL AGENCY FOR RESEARCH ON CANCER

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

GefStoffV: Gefahrstoffverordnung (Ordinance on Hazardous Substances, Germany)

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LOAEL: Lowest observed adverse effect level

LOAEC: Lowest observed adverse effect concentration

LC₅₀: Lethal concentration, 50 percent

LD₅₀: Lethal dose, 50 percent

NIOSH: National Institute of Occupational Safety and Health

NOAEL: No observed adverse effect level

NOAEC: No observed adverse effect level

NTP: National Toxicology Program

N/A: not applicable

OEL: Occupational Exposure limit (Arbeitsplatzgrenzwert)

OSHA: Occupational Safety and Health Administration

PEL: permissible exposure limit (Zulässiger Expositionsgrenzwert)

PBT: persistent bioaccumulative toxic

PNEC: predicted no effect concentration

REL: Recommended exposure limit (Empfohlene Expositionsgrenze)

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

SARA: Superfund Amendments and Reauthorization Act

STEL: Short Term Exposure Limit (Kurzzeitgrenzwert) (15 min)

SVHC: substance of very high concern

TLV: Threshold Limit Values (Schwellwert Grenzwerte)

TRGS Technische Regeln für Gefahrstoffe

TSCA: Toxic Substances Control Act

TWA: Time Weighted Average (Zeitlich gewichteter Mittelwert) (8 h)

VOC: Volatile Organic Compounds

vPvB: very persistent and very bioaccumulative

VwVwS: Verwaltungsvorschrift wassergefährdender Stoffe

WGK: Wassergefährdungsklasse

16.3. Key literature references and sources for data

No data available

16.4. Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

The mixture is classified as not hazardous according to regulation (EC) No 1272/2008 [CLP].

16.5. Relevant R-, H- and EUH-phrases (Number and full text)

| Hazard statements | |
|-------------------|--|
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H412 | Harmful to aquatic life with long lasting effects. |

16.6. Training advice

No data available

16.7. Additional information

Classification according to Regulation (EC) No 1272/2008 [CLP] - Classification procedure:

health hazards: Calculation method.

Environmental hazards: Calculation method.

Physical hazards: On basis of test data.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.