

SAFETY DATA SHEET

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

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Mabanol Erodierfluid EDM 2

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

1.1. Product identifier

Trade name/designation:

Mabanol Erodierfluid EDM 2

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

Use of the substance/mixture:

Metalworking 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

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]:

Hazard classes and hazard categories	Hazard statements	Classification procedure
Aspiration hazard (<i>Asp. Tox. 1</i>)	H304: May be fatal if swallowed and enters airways.	
flammable liquids (<i>Flam. Liq. 3</i>)	H226: Flammable liquid and vapour.	

2.2. Label elements

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

Hazard pictograms:



GHS02
Flame



GHS08
Health hazard

Signal word: Danger

Hazard components for labelling:

Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics

hazard statements for physical hazards

H226 Flammable liquid and vapour.

hazard statements for health hazards

H304 May be fatal if swallowed and enters airways.

Supplemental hazard information

EUH066 Repeated exposure may cause skin dryness or cracking.

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Precautionary Statements Prevention

P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233	Keep container tightly closed.

Precautionary Statements Response

P301 + P310	IF SWALLOWED: Immediately call a POISON CENTER/doctor/...
P331	Do NOT induce vomiting.

Precautionary Statements Storage

P403 + P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.

2.3. Other hazards

No data available

SECTION 3: Composition / information on ingredients

3.2. Mixtures

Description:

Mixture of base oils and additives.

Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
EC No.: 918-167-1 REACH No.: 01-2119472146-39	Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics Asp. Tox. 1, Flam. Liq. 3 H226-H304	90 - < 100 weight-%

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

SECTION 4: First aid measures

4.1. Description of first aid measures

General information:

When in doubt or if symptoms are observed, get medical advice.

Following inhalation:

Remove casualty to fresh air and keep warm and at rest. Where appropriate artificial ventilation. In case of respiratory tract irritation, consult a physician.

In case of skin contact:

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

After eye contact:

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion:

Do NOT induce vomiting. Call a physician immediately. Rinse mouth thoroughly with water. Where appropriate artificial ventilation. Observe risk of aspiration if vomiting occurs.

Self-protection of the first aider:

No direct artificial respiration to be given by first aider.

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

The following symptoms may occur: Cough. Dyspnoea. Respiratory complaints. Fever. Vomiting. Pneumonia.

Symptoms can occur only after several hours.

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

First Aid, decontamination, treatment of symptoms.

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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media:

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

Unsuitable extinguishing media:

Full water jet.

5.2. Special hazards arising from the substance or mixture

Hazardous combustion products:

In case of fire: Gases/vapours, toxic. In case of fire may be liberated: Carbon dioxide (CO₂). Carbon monoxide. Nitrogen oxides (NO_x).

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

5.4. Additional information

Do not inhale explosion and combustion gases. Use water spray jet to protect personnel and to cool endangered containers. 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

6.1.1. For non-emergency personnel

Personal precautions:

Use personal protection equipment. Avoid contact with skin, eyes and clothes. Wear breathing apparatus if exposed to vapours/dusts/aerosols. Ventilate affected area. Vapours can form explosive mixtures with air. Keep away from sources of ignition - No smoking.

6.1.2. For emergency responders

No data available

6.2. Environmental precautions

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Make sure spills can be contained, e.g. in sump pallets or kerbed areas. In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

6.3. Methods and material for containment and cleaning up

For containment:

Stop and contain spill/release if it can be done safely. If this cannot be done, allow fire to burn under control. Cover drains. Prevent spread over a wide area (e.g. by containment or oil barriers).

For cleaning up:

Clear spills immediately. Wipe up with absorbent material (eg. cloth, fleece). Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically, placing in appropriate containers for disposal. Ventilate affected area. 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

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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). Use only in well-ventilated areas. Always close containers tightly after the removal of product. Avoid contact with skin, eyes and clothes. Avoid: Inhalation of vapours or spray/mists. Keep away from sources of ignition - No smoking. Use only antistatically equipped (spark-free) tools.

Fire prevent measures:

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames. Take precautionary measures against static discharges. Vapours are heavier than air, spread along floors and form explosive mixtures with air. Reignition possible over considerable distance.

Environmental precautions:

Do not allow to enter into surface water or drains.

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:

Take precautionary measures against static discharges. Provide earthing of containers, equipment, pumps and ventilation facilities.

Packaging materials:

Only use containers specifically approved for the substance/product.

Suitable container/equipment material: Steel. Refined steel.

Unsuitable container/equipment material: NR (natural rubber, natural latex). NBR (Nitrile rubber). Butyl caoutchouc (butyl rubber).

Requirements for storage rooms and vessels:

Ensure adequate ventilation of the storage area. Keep container tightly closed in a cool, well-ventilated place. Protect containers against damage. Floors should be impervious, resistant to liquids and easy to clean.

Hints on storage assembly:

Keep away from: Oxidizing agent.

Do not store together with: Food and feedingstuffs.

Storage class: 3 - Flammable liquids

Further information on storage conditions:

Recommended storage temperature: 5 - 40°C.

Protect against: Frost. Heat. UV-radiation/sunlight. Water. Humidity.

storage stability: 24 month(s).

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

Use only in well-ventilated areas. If local exhaust ventilation is not possible or not sufficient, the entire working area should be ventilated by technical means. Technical measures and the application of suitable work processes have priority over personal protection equipment.

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8.2.2. Personal protection equipment

Eye/face protection:

Eye glasses with side protection (DIN EN 166).

Skin protection:

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

Wearing time with permanent contact:

Suitable material: NBR (Nitrile rubber). CR (polychloroprene, chloroprene rubber). PVA (Polyvinyl alcohol). Thickness of the glove material: 0,70 mm. Breakthrough time (maximum wearing time): > 480 min.

Wearing time with occasional contact (splashes):

Suitable material: NBR (Nitrile rubber). CR (polychloroprene, chloroprene rubber). NBR (Nitrile rubber). PVA (Polyvinyl alcohol). Thickness of the glove material: 0,40 mm. Breakthrough time (maximum wearing time): > 30 min.

Check leak tightness/impermeability prior to use. 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.

Do not wear gloves near rotary machines and tools.

If prolonged or repeated contact is presumable, chemical resistant clothing is recommended.

Respiratory protection:

Usually no personal respirative 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. Suitable respiratory protection apparatus: Combination filtering device (EN 14387).

8.2.3. Environmental exposure controls

No data available

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state: Liquid

Colour: clear

Odour: not determined

Safety relevant basis data

parameter		at °C	Method	Remark
pH	<i>not determined</i>			
Melting point	<i>not determined</i>			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	> 150 °C			1013 hPa
Decomposition temperature	<i>not determined</i>			
Flash point	> 56 °C		DIN EN ISO 2592	
Evaporation rate	<i>not determined</i>			
Auto-ignition temperature	> 200 °C			
Upper/lower flammability or explosive limits	0.6 - 6.5 Vol-%			not explosive according to EU A.14
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	0.761 g/cm ³	15 °C	DIN EN ISO 12185	
Bulk density	<i>not determined</i>			

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parameter		at °C	Method	Remark
Water solubility	The study does not need to be conducted because the substance is known to be insoluble in water.	20 °C		
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	≈ 1 mm ² /s	40 °C	DIN EN ISO 3104	

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

No information available.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No hazardous reaction when handled and stored according to provisions.

10.4. Conditions to avoid

Keep away from sources of heat (e.g. hot surfaces), sparks and open flames.

10.5. Incompatible materials

Oxidising agent, strong.

10.6. Hazardous decomposition products

No known hazardous decomposition products.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

CAS No.	Substance name	Toxicological information
	Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics	LD₅₀ oral: >5,000 mg/kg (Rat) OECD 401 LD₅₀ dermal: >5,000 mg/kg (Rabbit) OECD 402 LC₅₀ Acute inhalation toxicity (vapour): >5 mg/l (Rat) OECD 403

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:

Not an irritant.

Has degreasing effect on the skin.

Serious eye damage/irritation:

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

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Respiratory or skin sensitisation:

not sensitising.

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:

May be fatal if swallowed and enters airways. For viscosity data, see section 9.

SECTION 12: Ecological information

12.1. Toxicity

Aquatic toxicity:

harmless to aquatic organisms up to the tested concentration.

Additional ecotoxicological information:

Do not allow uncontrolled discharge of product into the environment.

12.2. Persistence and degradability

Biodegradation:

Moderately/partially biodegradable.

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:

No indication of bioaccumulation potential.

12.4. Mobility in soil

No information available.

12.5. Results of PBT and vPvB assessment

CAS No.	Substance name	Results of PBT and vPvB assessment
	Hydrocarbons, C11-C12, isoalkanes, < 2 % aromatics	The substance in the mixture does not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6. Other adverse effects

Damage can be caused through mechanical influence of the product (eg. sticking).

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:

12 01 07 *	mineral-based machining oils free of halogens (except emulsions and solutions)
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*: Evidence for disposal must be provided.

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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)	Sea transport (IMDG)	Air transport (ICAO-TI / IATA-DGR)	
14.1. UN-No.			
UN 3295	UN 3295	UN 3295	
14.2. UN proper shipping name			
HYDROCARBONS, LIQUID, N.O.S.	HYDROCARBONS, LIQUID, N.O.S.	HYDROCARBONS, LIQUID, N.O.S.	
14.3. Transport hazard class(es)			
 3	 3	 3	
14.4. Packing group			
III	III	III	
14.5. Environmental hazards			
No	No	No	
14.6. Special precautions for user			
Special provisions: LQ 5 I, E 1 Excepted Quantities (EQ): Hazard identification number (Kemler No.): 30 Classification code: F1 tunnel restriction code: (D/E) Remark:	Special provisions: LQ 5 I, E 1 Excepted Quantities (EQ): EmS-No.: F-E / , S-D Remark:	Special provisions: E 1 Excepted Quantities (EQ): Remark:	

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

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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 2010/75/EU on industrial emissions: 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

Water hazard class (WGK)

WGK:

1 - schwach wassergefährdend

Remark:

Self-classification (mixture; calculation rule).

Other regulations, restrictions and prohibition regulations

Betriebssicherheitsverordnung (BetrSichV): Flammable.

15.2. Chemical Safety Assessment

No information available.

SECTION 16: Other information

16.1. Indication of changes

No data available

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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)
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
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]

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

Hazard classes and hazard categories	Hazard statements	Classification procedure
Aspiration hazard (<i>Asp. Tox. 1</i>)	H304: May be fatal if swallowed and enters airways.	
flammable liquids (<i>Flam. Liq. 3</i>)	H226: Flammable liquid and vapour.	

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

Hazard statements	
H226	Flammable liquid and vapour.
H304	May be fatal if swallowed and enters airways.

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16.6. Training advice

No data available

16.7. Additional information

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.