

# SAFETY DATA SHEET

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

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## Mabanol Protect 310

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

#### 1.1. Product identifier

Trade name/designation:

Mabanol Protect 310

#### 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]:

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:

2-butoxyethanol

##### Supplemental hazard information

EUH210 Safety data sheet available on request.

#### 2.3. Other hazards

No data available

### SECTION 3: Composition / information on ingredients

#### 3.2. Mixtures

Description:

Mixture of base oils and additives.

Additional information:

The classification as a carcinogen need not apply if it can be shown that the substance contains less than 3 % DMSO extract as measured by IP 346 'Determination of polycyclic aromatics in unused lubricating base oils and asphaltene free petroleum fractions — Dimethyl sulphoxide extraction refractive index method', Institute of Petroleum, London. This note applies only to certain complex oil-derived substances in Part 3.

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### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
CAS No.: 111-76-2 EC No.: 203-905-0 REACH No.: 01-2119475108-36	<b>2-butoxyethanol</b> Acute Tox. 4, Eye Irrit. 2, Skin Irrit. 2 <b>Warning</b> H302-H312-H315-H319-H332	5 - < 10 weight-%
CAS No.: 68608-26-4 EC No.: 271-781-5 REACH No.: 01-2119527859-22	<b>Sulfonic acids, petroleum, sodium salts</b> Eye Irrit. 2 H319	1 - < 5 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.

#### Following ingestion:

Do NOT induce vomiting. Call a physician immediately. Rinse mouth thoroughly with water.

#### 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

Aspiration can lead to pneumonia and pulmonary oedema.

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

First Aid, decontamination, treatment of symptoms.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

#### Suitable extinguishing media:

Foam. Extinguishing powder. Carbon dioxide (CO<sub>2</sub>). Water spray. 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: Carbon dioxide (CO<sub>2</sub>). Carbon monoxide. Nitrogen oxides (NO<sub>x</sub>). smoke and other products of incomplete combustion.

### 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

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.

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### 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. Keep away from sources of ignition - No smoking.

**Protective equipment:**

Wear protective gloves/protective clothing/eye protection/face protection.

##### 6.1.2. For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8.

#### 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:**

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

### 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. Put lids on containers immediately after use. Avoid contact with skin, eyes and clothes. Do not breathe gas/fumes/vapour/spray. 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. Keep away from sources of ignition - No smoking.

**Environmental precautions:**

Do not empty into 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.

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### 7.2. Conditions for safe storage, including any incompatibilities

#### Technical measures and storage conditions:

Take precautionary measures against static discharge. 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 (TRGS 510, Germany):** 10 - Combustible liquids that cannot be assigned to any of the above storage classes

#### Further information on storage conditions:

Recommended storage temperature: 5 - 40°C

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

Maximum storage period (time): 24 month(s).

### 7.3. Specific end use(s)

No data available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Occupational exposure limit values

Limit value type (country of origin)	Substance name	① Long-term occupational exposure limit value ② short-term occupational exposure limit value ③ Instantaneous value ④ Monitoring and observation processes ⑤ Remark
TRGS 900 (DE)	2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	① 10 ppm (49 mg/m <sup>3</sup> ) ② 20 ppm (98 mg/m <sup>3</sup> ) ⑤ (kann über die Haut aufgenommen werden)
IOELV (EU)	2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	① 20 ppm (98 mg/m <sup>3</sup> ) ② 50 ppm (246 mg/m <sup>3</sup> ) ⑤ (may be absorbed through the skin)

#### 8.1.2. Biological limit values

Limit value type (country of origin)	Substance name	Limit value	① parameter ② Test material ③ Time of sampling ④ Remark
TRGS 903 (DE)	2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	150 mg/g Creatinin	① Nach Hydrolyse: Butoxyessigsäure ② Urin ③ bei Langzeitexposition, Expositionsende bzw. Schichtende

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### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	20 mg/cm <sup>2</sup>	① DNEL worker ② Long-term - inhalation, systemic effects
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	663 mg/m <sup>3</sup>	① DNEL worker ② Acute - inhalation, systemic effects
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	75 mg/kg bw/day	① DNEL worker ② Long-term - dermal, systemic effects
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	89 mg/kg bw/day	① DNEL worker ② Acute - dermal, systemic effects

Substance name	PNEC Value	① PNEC type
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	8.8 mg/l	① PNEC aquatic, freshwater
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	2.8 mg/kg	① PNEC sewage treatment plant
2-butoxyethanol CAS No.: 111-76-2 EC No.: 203-905-0	8.14 mg/kg	① PNEC sediment, freshwater

### 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 must be ventilated by technical means. Technical measures and the application of suitable work processes have priority over personal protection equipment.

#### 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).

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. Check leak tightness/impermeability prior to use.

Suitable material:

Wearing time with permanent contact::

NBR (Nitrile rubber), CR (polychloroprene, chloroprene rubber). PVA (Polyvinyl alcohol).

Thickness of the glove material: 0,70 mm. Breakthrough time:: > 480 min.

Wearing time with occasional contact (splashes):

NBR (Nitrile rubber), CR (polychloroprene, chloroprene rubber). PVA (Polyvinyl alcohol).

Thickness of the glove material: 0,40 mm. Breakthrough time:: > 30 min.

Breakthrough time:: 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.

##### 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

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## Mabanol Protect 310

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

##### Appearance

Physical state: Liquid

Colour: brown

Odour: not determined

##### Safety relevant basis data

parameter		at °C	Method	Remark
pH	≈ 6.5	20 °C		2 Gew-% / 20°C
Melting point	< -10 °C			
Freezing point	<i>not determined</i>			
Initial boiling point and boiling range	> 177 °C			(1013 hPa)
Decomposition temperature	<i>not determined</i>			
Flash point	74 °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-%			
Vapour pressure	<i>not determined</i>			
Vapour density	<i>not determined</i>			
Density	0.905 g/cm <sup>3</sup>	15 °C	DIN EN ISO 12185	
Relative density	<i>not determined</i>			
Bulk density	<i>not determined</i>			
Water solubility	miscible	20 °C		
Partition coefficient: n-octanol/water	<i>not determined</i>			
Dynamic viscosity	<i>not determined</i>			
Kinematic viscosity	≈ 120 mm <sup>2</sup> /s	20 °C	DIN EN ISO 3104	
Pour point	<i>not determined</i>			

#### 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 information available.

#### 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.

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### 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

No data available

### SECTION 12: Ecological information

#### 12.1. Toxicity

**Aquatic toxicity:**

Harmless to aquatic organisms up to the tested concentration.

**Additional ecotoxicological information:**

No data available. The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

#### 12.2. Persistence and degradability

**Abiotic degradation:**

Poorly eliminated from water.

**Biodegradation:**

Part of the components is biodegradable.

**Additional information:**

Evidence for inherent biodegradability. Data apply to the main component.

#### 12.3. Bioaccumulative potential

**Accumulation / Evaluation:**

No indication of bioaccumulation potential.

#### 12.4. Mobility in soil

No information available.

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### 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

Do not allow uncontrolled discharge of product into the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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.

#### Remark:

Waste code produkt emulsion: 12 01 09\*

#### Waste treatment options

##### Appropriate disposal / Product:

Can be incinerated together with household waste in compliance with applicable technical regulations following consultation with approved waste disposal management companies and authorities in charge.

##### Appropriate disposal / Package:

Non-contaminated packages may be recycled. Packing which cannot be properly cleaned must be disposed of. Dispose of waste according to applicable legislation.

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

<b>14.1. UN number or ID number</b>
not relevant
<b>14.2. UN proper shipping name</b>
not relevant
<b>14.3. Transport hazard class(es)</b>
not relevant
<b>14.4. Packing group</b>
not relevant
<b>14.5. Environmental hazards</b>
not relevant
<b>14.6. Special precautions for user</b>
not relevant

### 14.7. Maritime transport in bulk according to IMO instruments

not relevant



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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 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

###### for substances contained in the product:

This product is not assigned to a hazard category.

###### Technische Anleitung Luft (TA-Luft)

###### Remark:

Weight fraction (Number 5.2.5 I): 5 - 10 %

###### Water hazard class

###### WGK:

1 - schwach wassergefährdend

###### Remark:

Self-classification (mixture; calculation rule).

#### 15.2. Chemical Safety Assessment

No information available.

#### 15.3. Additional information

Keine brennbare Flüssigkeit gemäß BetrSichV.

### 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  
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]

#### Classification 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	
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.

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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.