

# SAFETY DATA SHEET

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

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## Mabanol Cut Syn 93

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

#### 1.1. Product identifier

**Trade name/designation:**

Mabanol Cut Syn 93

#### 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:**

Boric acid; pyridine-2-thiol 1-oxide, sodium salt

##### 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 substances listed below and other non-classified substances.

**Additional information:**

This mixture contains the following substances of very high concern (SVHC) which are included in the Candidate List according to Article 59 of REACH: Boric acid.

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### Hazardous ingredients / Hazardous impurities / Stabilisers:

product identifiers	Substance name Classification according to Regulation (EC) No 1272/2008 [CLP]	Concentration
<b>CAS No.:</b> 10043-35-3 <b>EC No.:</b> 234-343-4 <b>REACH No.:</b> 01-2119486683-25	<b>Boric acid</b> <i>Candidate List of Substances of Very High Concern for Authorisation!</i> Repr. 1B <b>Danger</b> H360FD	< 5.5 weight-%
<b>CAS No.:</b> 3811-73-2 <b>EC No.:</b> 223-296-5	<b>pyridine-2-thiol 1-oxide, sodium salt</b> Acute Tox. 4, Aquatic Acute 1, Aquatic Chronic 1, Eye Irrit. 2, Skin Irrit. 2 H302-H312-H315-H319-H332-H400-H410	< 0.25 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:

Remove victim out of the danger area. When in doubt or if symptoms are observed, get medical advice.

#### Following inhalation:

In case of accident by inhalation: remove casualty to fresh air and keep at rest. Where appropriate artificial ventilation. 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. 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. Rinse mouth thoroughly with water. Let water be drunk in little sips (dilution effect). Observe risk of aspiration if vomiting occurs. 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

No information available.

### 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:

Sand. Foam. Carbon dioxide (CO<sub>2</sub>). Extinguishing powder. Water spray jet. Water mist.

#### 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 may be liberated: Carbon monoxide. Carbon dioxide (CO<sub>2</sub>). 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

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

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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. Ventilate affected area. Special danger of slipping by leaking/spilling product.

##### 6.1.2. For emergency responders

**Personal protection equipment:**

Personal protection equipment: see section 8

#### 6.2. Environmental precautions

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

Generation/formation of mist.

**Fire prevent measures:**

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

Fire class: B (Fires of liquids or liquid turning substances).

**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:**

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

**Hints on storage assembly:**

Do not store together with: Food and feedingstuffs.

Keep away from: Oxidizing agent.

**Storage class:** 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. Water. Humidity.

storage stability. ~ 12 month(s).

#### 7.3. Specific end use(s)

No data available

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### 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)	Boric acid CAS No.: 10043-35-3	① 0.5 mg/m <sup>3</sup> ② 1 mg/m <sup>3</sup> ⑤ (einatembare Fraktion)
TRGS 900 (DE)	pyridine-2-thiol 1-oxide, sodium salt CAS No.: 3811-73-2	① 0.2 mg/m <sup>3</sup> ② 0.4 mg/m <sup>3</sup> ⑤ (einatembare Fraktion; kann über die Haut aufgenommen werden)

##### 8.1.2. Biological limit values

No data available

##### 8.1.3. DNEL-/PNEC-values

Substance name	DNEL value	① DNEL type ② Exposure route
Boric acid CAS No.: 10043-35-3	4.9 mg/m <sup>3</sup>	① DNEL Consumer ② inhalative, long-term, systemic
Boric acid CAS No.: 10043-35-3	8.8 mg/m <sup>3</sup>	① DNEL worker ② inhalative, short-term, systemic, (acute)
Boric acid CAS No.: 10043-35-3	392 mg/kg bw/day	① DNEL worker ② dermal, long-term, systemic
Boric acid CAS No.: 10043-35-3	231.8 mg/kg	① DNEL Consumer ② dermal, long-term, systemic

Substance name	PNEC Value	① PNEC type
Boric acid CAS No.: 10043-35-3	1.35 mg/l	① PNEC aquatic, freshwater
Boric acid CAS No.: 10043-35-3	1.35 mg/l	① PNEC aquatic, marine water
Boric acid CAS No.: 10043-35-3	1.75 mg/l	① PNEC sewage treatment plant
Boric acid CAS No.: 10043-35-3	1.8 mg/l	① PNEC sediment, freshwater
Boric acid CAS No.: 10043-35-3	1.8 mg/l	① PNEC sediment, marine water

#### 8.2. Exposure controls

##### 8.2.1. Appropriate engineering controls

Provide adequate ventilation. 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.

##### 8.2.2. Personal protection equipment

###### Eye/face protection:

Eye glasses with side protection (DIN EN 166).

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### 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). 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). Thickness of the glove material: 0,40 mm. Breakthrough time (maximum wearing time): > 30 min.

Unsuitable material: PVA (Polyvinyl alcohol).

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: Oil-resistant and hardly inflammable protective clothing.

### Respiratory protection:

Usually no personal respirative protection necessary.

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.

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:** colourless

**Odour:** not determined

#### Safety relevant basis data

parameter		at °C	Method	Remark
pH	9.5	20 °C	DIN 51369	
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	> 100 °C		DIN EN ISO 2592	Contains: Water.
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	1.131 g/cm <sup>3</sup>	15 °C	DIN EN ISO 12185	
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	30 mm <sup>2</sup> /s	20 °C	DIN EN ISO 3104	

### 9.2. Other information

No data available

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## Mabanol Cut Syn 93

### 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

Exothermic reaction with: Acid.

#### 10.4. Conditions to avoid

No information available.

#### 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

##### 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:

May cause an allergic skin reaction.

##### 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.

### SECTION 12: Ecological information

#### 12.1. Toxicity

##### Aquatic toxicity:

harmless to aquatic organisms up to the tested concentration.

##### Additional ecotoxicological information:

The ecotoxicological properties of this mixture are determined by the ecotoxicological properties of the single components (see section 3).

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### 12.2. Persistence and degradability

#### Biodegradation:

Some of the components are poorly biodegradable.

#### Additional information:

Poorly eliminated from water.

### 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

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

### 12.6. 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:

12 01 10 *	synthetic machining oils
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\*: 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:

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

## SECTION 14: Transport information

No dangerous good in sense of these transport regulations.

### 14.1. UN-No.

not relevant

### 14.2. UN proper shipping name

not relevant

### 14.3. Transport hazard class(es)

not relevant

### 14.4. Packing group

not relevant

### 14.5. Environmental hazards

not relevant

### 14.6. Special precautions for user

not relevant

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

###### Restrictions of occupation

Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC).

###### Störfallverordnung

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

This product is not assigned to a hazard category.

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

###### Klasse 1:

weight fraction in %: <5 (Number 5.2.5. I)

###### Water hazard class (WGK)

###### WGK:

2 - deutlich wassergefährdend

###### Remark:

Self-classification (mixture; calculation rule).

#### 15.2. Chemical Safety Assessment

No information available.

#### 15.3. Additional information

No flammable liquid according to BetrSichV.

### SECTION 16: Other information

#### 16.1. Indication of changes

No data available



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## Mabanol Cut Syn 93

### 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]:

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.
H360FD	May damage fertility. May damage the unborn child.

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H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### 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.