

**Opticool 462 - Safety Data Sheet 1907/2006/EC - REACH (GB)**

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**SECTION 1: Identification of the substance / preparation and of the company**

**1.1 Product identifier**

**Opticool 462**

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

**1.2.1 Relevant uses**

Metalworking

**1.2.2 Uses advised against**

None known.

**1.3 Details of the supplier of the safety data sheet**

**Company**

Chesterton International GmbH  
Am Lenzenfleck 23  
85737 Ismaning / GERMANY  
Phone +49 89-996546-0  
Fax +49 89-996546-50  
Homepage [www.chesterton.com/GER/Pages/default.aspx](http://www.chesterton.com/GER/Pages/default.aspx)  
E-mail [customer.service@chesterton.com](mailto:customer.service@chesterton.com)

**Address enquiries to**

**Technical information**

[customer.service@chesterton.com](mailto:customer.service@chesterton.com)

**Safety Data Sheet**

[sdb@chemiebuero.de](mailto:sdb@chemiebuero.de)

**1.4 Emergency phone**

**Advisory body**

+49 (0)89-19240 (24h) (english)

**SECTION 2: Hazards identification**

**2.1 Classification of the substance or mixture**

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

Skin Sens. 1: H317 May cause an allergic skin reaction.

**2.1.2 Classification according to Directive 67/548/EEC or 1999/45/EC**

Sensitizing. - R 43: May cause sensitisation by skin contact.

**2.2 Label elements**

The product is classified and required to be labelled in accordance with EC-Directives

**Labelling according to Regulation (EC) 1272/2008**

**Hazard pictograms**



**Signal word**

WARNING

**Contains:**

$\alpha, \alpha', \alpha''$ -trimethyl-1,3,5-triazine-1,3,5-(2H,4H,6H)-triethanol  
3-iodo-2-propynyl butylcarbamate

**Hazard statements**

H317 May cause an allergic skin reaction.

**Precautionary statements**

P261 Avoid breathing vapours/spray.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.  
P501 Dispose of contents/container to in accordance with local/regional/national/international regulation.

**2.3 Other hazards**

**Other hazards**

Further hazards were not determined with the current level of knowledge.

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### SECTION 3: Composition / Information on ingredients

**Product-type:**

The product is a mixture.

Range [%]	Substance
< 5,5	Boric acid
	CAS: 10043-35-3, EINECS/ELINCS: 233-139-2, EU-INDEX: 005-007-00-2, ECB-Nr.: 01-2119486683-25-XXXX
	GHS/CLP: Repr. 1B: H360FD
	EEC: T, R 60-61
1 - 5	$\alpha,\alpha',\alpha''$ -trimethyl-1,3,5-triazine-1,3,5(2H,4H,6H)-triethanol
	CAS: 25254-50-6, EINECS/ELINCS: 246-764-0
	GHS/CLP: Acute Tox. 4: H302 H332 - Skin Irrit. 2: H315 - Eye Irrit. 2: H319 - Skin Sens. 1: H317
	EEC: Xn, R 20/22-36/38-43-52
1 - 5	Fatty acid amide, ethoxylated
	CAS: 85536-23-8, EINECS/ELINCS: Polymer
	GHS/CLP: Skin Irrit. 2: H315
	EEC: Xi, R 38
< 0,5	3-iodo-2-propynyl butylcarbamate
	CAS: 55406-53-6, EINECS/ELINCS: 259-627-5, EU-INDEX: 616-212-00-7
	GHS/CLP: Acute Tox. 3: H331 - Acute Tox. 4: H302 - STOT RE 1: H372 - Eye Dam. 1: H318 - Skin Sens. 1: H317 - Aquatic Acute 1: H400 - Aquatic Chronic 1: H410, M = 10
	EEC: T-N, R 22-23-41-43-48/23-50

**Comment on component parts**

Contains less than 3% w/w DMSO-extract (only for mineral oils)  
 SVHC (Candidate List of Substances of Very High Concern for authorisation)  $\geq$  0,1%  
 CAS 10043-35-3 - Boric acid  
 For full text of H-statements and R-phrases: see SECTION 16.

### SECTION 4: First aid measures

#### 4.1 Description of first aid measures

**General information**

Take off contaminated clothing and wash before reuse.

**Inhalation**

Ensure supply of fresh air.  
 In the event of symptoms seek for medical treatment.

**Skin contact**

In case of contact with skin wash off immediately with soap and water.  
 Consult a doctor if skin irritation persists.

**Eye contact**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 If eye irritation persists: Get medical advice/attention.

**Ingestion**

Supply with medical care.  
 Do not induce vomiting.  
 Rinse out mouth and give plenty of water to drink.

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

Allergic reactions

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

Treat symptomatically.  
 If swallowed or in the event of vomiting, risk of product entering the lungs.

### SECTION 5: Fire-fighting measures

#### 5.1 Extinguishing media

**Suitable extinguishing media**

Dry powder.  
 Water spray jet.  
 Carbon dioxide.  
 Foam.

**Extinguishing media that must not be used**

Full water jet.

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### 5.2 Special hazards arising from the substance or mixture

Risk of formation of toxic pyrolysis products.  
Nitrogen oxides (NO<sub>x</sub>).  
Carbon monoxide (CO), irritant gases/vapours.  
Sulphur oxides (SO<sub>x</sub>).

### 5.3 Advice for firefighters

Use self-contained breathing apparatus.  
Wear full protective suit.  
Do not inhale explosion and/or combustion gases.  
Cool containers at risk with water spray jet.  
Collect contaminated firefighting water separately, must not be discharged into the drains.  
Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation.  
High risk of slipping due to leakage/spillage of product.  
Forms slippery surfaces with water.  
Use breathing apparatus if exposed to vapours/aerosol.  
Use personal protective equipment.

### 6.2 Environmental precautions

Prevent spread over a wide area (e.g. by containment or oil barriers).  
Do not discharge into the drains/surface waters/groundwater.  
Do not discharge into the subsoil/soil.

### 6.3 Methods and material for containment and cleaning up

Pick up with absorbent material (e.g. sand, universal absorbent, diatomaceous earth).  
Dispose of absorbed material in accordance within the regulations.

### 6.4 Reference to other sections

See SECTION 8+13

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Avoid formation of oil dust.  
Avoid spilling or spraying in enclosed areas.  
Use only in well-ventilated areas.  
Keep away from all sources of ignition - Refrain from smoking.  
Do not eat, drink, smoke or take drugs at work.  
Wash hands before breaks and after work.  
Use barrier skin cream.  
Cloths contaminated with product should not be kept in trouser pockets.

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

Keep only in original container.  
Prevent penetration into the ground.  
Do not store together with oxidizing agents.  
Keep container tightly closed.  
Recommended storage temperature: 10-25 °C (40 - 77 °F).  
Keep away from frost.

### 7.3 Specific end use(s)

See product use, SECTION 1.2

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### SECTION 8: Exposure controls / personal protection

#### 8.1 Control parameters

##### Ingredients with occupational exposure limits to be monitored (GB)

Range [%]	Substance
< 5,5	Boric acid
	CAS: 10043-35-3, EINECS/ELINCS: 233-139-2, EU-INDEX: 005-007-00-2, ECB-Nr.: 01-2119486683-25-XXXX
	Long-term exposure: 2 mg/m <sup>3</sup> , TWA (inhalable fraction, listed under Borate compounds, inorganic)

##### DNEL

Range [%]	Substance
< 5,5	Boric acid, CAS: 10043-35-3
	Industrial, dermal, Long-term - systemic effects: 0,34 mg B/kg.
	Industrial, inhalative, Long-term - systemic effects: 1,45 mg B/m <sup>3</sup> .
	general population, inhalative, Acute - local effects: 1,92 mg <sup>3</sup> /m <sup>3</sup> .
	general population, oral, Long-term - systemic effects: 0,17 mg B/kg.

##### PNEC

Range [%]	Substance
< 5,5	Boric acid, CAS: 10043-35-3
	sewage treatment plants (STP), 10,75 mg <sup>3</sup> /l.
	soil, 5,4 mg B/kg.
	sediment (seaater), 1,80 mg B/l.
	sediment (freshwater), 1,80 mg B/l.
	seawater, 1,35 mg B/l.
	freshwater, 10,35 mg B/l.

#### 8.2 Exposure controls

<b>Additional advice on system design</b>	Ensure adequate ventilation on workstation.
<b>Eye protection</b>	Safety glasses.
<b>Hand protection</b>	The details concerned are recommendations. Please contact the glove supplier for further information. In full contact: Nitrile rubber, >480 min (EN 374). Polychloroprene, >480 min (EN 374). In splash contact Nitrile rubber, >60 min (EN 374).
<b>Skin protection</b>	Solvent-resistant protective clothing.
<b>Other</b>	Do not inhale gases/vapours/aerosols. Avoid contact with eyes and skin. Personal protective equipment should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of these equipments to chemicals should be ascertained with the respective supplier.
<b>Respiratory protection</b>	Breathing apparatus in the event of high concentrations. Breathing apparatus in the event of aerosol or mist formation. Short term: filter apparatus, combination filter A-P1.
<b>Thermal hazards</b>	not applicable
<b>Delimitation and monitoring of the environmental exposition</b>	Comply with applicable environmental regulations limiting discharge to air, water and soil.

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### SECTION 9: Physical and chemical properties

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

Form	liquid
Color	yellowish
Odor	like mineral oil
Odour threshold	not determined
pH-value	8,8 - 9 (DIN 51369)
pH-value [1%]	not determined
Boiling point [°C]	> 100
Flash point [°C]	> 140 (DIN EN ISO 2592)
Flammability [°C]	not applicable
Lower explosion limit	0,6 Vol.-%
Upper explosion limit	6,5 Vol.-%
Oxidizing properties	no
Vapour pressure/gas pressure [kPa]	0,1 (20°C)
Density [g/ml]	0,98 (DIN EN ISO 12185) (15 °C / 59,0 °F)
Bulk density [kg/m <sup>3</sup> ]	not applicable
Solubility in water	miscible
Partition coefficient [n-octanol/water]	not determined
Viscosity	ca. 150 mm <sup>2</sup> /s (40°C) (DIN EN ISO 3104)
Relative vapour density determined in air	not determined
Evaporation speed	not determined
Melting point [°C]	ca. -20
Autoignition temperature [°C]	not applicable
Decomposition temperature [°C]	not determined

#### 9.2 Other information

Ignition Temperature: > 240

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

No dangerous reactions known if used as directed.

#### 10.2 Chemical stability

Stable under normal ambient conditions (ambient temperature).

#### 10.3 Possibility of hazardous reactions

Reactions with strong oxidizing agents.

#### 10.4 Conditions to avoid

See SECTION 7.2.

#### 10.5 Incompatible materials

See SECTION 10.3.

#### 10.6 Hazardous decomposition products

No dangerous reactions known if used as directed.  
In the event of fire: See SECTION 5.

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### SECTION 11: Toxicological information

#### 11.1 Information on toxicological effects

##### Acute toxicity

Range [%]	Substance
< 5,5	Boric acid, CAS: 10043-35-3
	LD50, dermal, Rabbit: > 2000 mg/kg.
	LD50, oral, Rat: 4100 mg/kg.
	LD50, oral, Rat: 3500 mg/kg.
	LC50, inhalative, Rat: 2 mg/l.

**Serious eye damage/irritation** not determined

**Skin corrosion/irritation** not determined

**Respiratory or skin sensitisation** Sensitizing.

**Specific target organ toxicity — single exposure** not determined

**Specific target organ toxicity — repeated exposure** not determined

**Mutagenicity** not determined

**Reproduction toxicity** not determined

**Carcinogenicity** not determined

**General remarks** Frequent persistent contact with the skin can cause skin irritation.

The product was classified on the basis of the calculation procedure of the preparation directive.

Toxicological data of complete product are not available.

The toxicity data listed pertaining to the ingredients are intended for those working in the medicinal professions, experts for occupational health and safety and toxicologists. The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

### SECTION 12: Ecological information

#### 12.1 Toxicity

Range [%]	Substance
< 5,5	Boric acid, CAS: 10043-35-3
	LC50, (96h), fish: 74 mg B/l.
	LC50, (48h), Daphnia magna: 133 mg B/l.
	NOEC, (21d), Daphnia magna: 6-13 mg B/l.
	EC10, (96h), Algae: 24 mg B/l.

#### 12.2 Persistence and degradability

**Behaviour in environment compartments** not determined

**Behaviour in sewage plant** not determined

**Biological degradability** Slightly eliminable from water.  
The product is not readily biodegradable.

#### 12.3 Bioaccumulative potential

Bioaccumulation is potentially possible.

#### 12.4 Mobility in soil

No information available.

#### 12.5 Results of PBT and vPvB assessment

Based on all available information not to be classified as PBT or vPvB respectively.

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**12.6 Other adverse effects**

Ecological data of complete product are not available.

The toxicity data pertaining to the ingredients were supplied by the manufacturers of raw materials.

Do not discharge product unmonitored into the environment or into the drainage.

**SECTION 13: Disposal considerations****13.1 Waste treatment methods**

Waste material must be disposed of in accordance with the Directive on waste 2008/98/EC as well as other national and local regulations. It is not possible to determine a waste code for this product in accordance with the European Waste Catalogue (EWC) since it is only possible to classify it according to how it is used by the customer. The waste code is to be determined within the EU in liaison with the waste-disposal operator.

**Product**

For recycling, consult manufacturer.

Dispose of as hazardous waste.

**Waste no. (recommended)**

120107\*

**Contaminated packaging**

Packaging that cannot be cleaned should be disposed of as for product.

**Waste no. (recommended)**

150110\*

**SECTION 14: Transport information****14.1 UN number**

See SECTION 14.2 in accordance with UN shipping name

**14.2 UN proper shipping name**

**Transport by land according to ADR/RID** NO DANGEROUS GOODS

**Inland navigation (ADN)** NO DANGEROUS GOODS

**Marine transport in accordance with IMDG** NOT CLASSIFIED AS "DANGEROUS GOODS"

**Air transport in accordance with IATA** NOT CLASSIFIED AS "DANGEROUS GOODS"

**14.3 Transport hazard class(es)**

See SECTION 14.2 in accordance with UN shipping name

**14.4 Packing group**

See SECTION 14.2 in accordance with UN shipping name

**14.5 Environmental hazards**

See SECTION 14.2 in accordance with UN shipping name

**14.6 Special precautions for user**

Relevant information under SECTION 6 to 8.

**14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

not applicable

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### SECTION 15: Regulatory information

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

<b>EEC-REGULATIONS</b>	1967/548 (1999/45); 1991/689 (2001/118); 1999/13; 2004/42; 648/2004; 1907/2006 (Reach); 1272/2008; 75/324/EEC (2008/47/EC); 453/2010/EC
<b>TRANSPORT-REGULATIONS</b>	DOT-Classification, ADR (2013); IMDG-Code (2013, 36. Amdt.); IATA-DGR (2013).
<b>NATIONAL REGULATIONS (GB):</b>	EH40/2005 Workplace exposure limits (Second edition, published December 2011). CHIP 3/ CHIP 4
<b>- Observe employment restrictions for people</b>	Observe employment restrictions for young people.
<b>- VOC (1999/13/CE)</b>	ca. 5%

#### 15.2 Chemical safety assessment

No information available.

### SECTION 16: Other information

#### 16.1 R-phrases (SECTION 3)

R 60: May impair fertility.  
R 61: May cause harm to the unborn child.  
R 38: Irritating to skin.  
R 20/22: Harmful by inhalation and if swallowed.  
R 36/38: Irritating to eyes and skin.  
R 43: May cause sensitisation by skin contact.  
R 52: Harmful to aquatic organisms.  
R 22: Harmful if swallowed.  
R 23: Toxic by inhalation.  
R 41: Risk of serious damage to eyes.  
R 48/23: Toxic - danger of serious damage to health by prolonged exposure through inhalation.  
R 50: Very toxic to aquatic organisms.

#### 16.2 Hazard statements (SECTION 3)

H410 Very toxic to aquatic life with long lasting effects.  
H400 Very toxic to aquatic life.  
H318 Causes serious eye damage.  
H372 Causes damage to organs through prolonged or repeated exposure.  
H302 Harmful if swallowed.  
H331 Toxic if inhaled.  
H317 May cause an allergic skin reaction.  
H319 Causes serious eye irritation.  
H302+H332 Harmful if swallowed or if inhaled.  
H315 Causes skin irritation.  
H360FD May damage fertility. May damage the unborn child.



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**16.3 Abbreviations and acronyms:**

ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route  
RID = Règlement concernant le transport international ferroviaire de marchandises dangereuses  
ADN = Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure  
CAS = Chemical Abstracts Service  
CLP = Classification, Labelling and Packaging  
DMEL = Derived Minimum Effect Level  
DNEL = Derived No Effect Level  
EC50 = Median effective concentration  
ECB = European Chemicals Bureau  
EEC = European Economic Community  
EINECS = European Inventory of Existing Commercial Chemical Substances  
ELINCS = European List of Notified Chemical Substances  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC-Code = International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IC50 = Inhibition concentration, 50%  
IMDG = International Maritime Code for Dangerous Goods  
IUCLID = International Uniform Chemical Information Database  
LC50 = Lethal concentration, 50%  
LD50 = Median lethal dose  
MARPOL = International Convention for the Prevention of Marine Pollution from Ships  
PBT = Persistent, Bioaccumulative and Toxic substance  
PNEC = Predicted No-Effect Concentration  
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals  
TLV@/TWA = Threshold limit value – time-weighted average  
TLV@STEL = Threshold limit value – short-time exposure limit  
VOC = Volatile Organic Compounds  
vPvB = very Persistent and very Bioaccumulative

**16.4 Other information****Customs Tariff**

not determined

**Classification procedure**

Skin Sens. 1: H317 May cause an allergic skin reaction. (Calculation method)

**Modified position**

none



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