

**MATERIAL SAFETY DATA SHEET****ALGICID PLUS**Page 1/6  
Date of issue  
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Version 02

**1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY****Product name:** **ALGICID PLUS****Product description:** Biocidal product for industrial and/or commercial use.  
According to Directive 98/8/EC application field of this product is masonry preservative (PT10).**Producer:** **JUB chemical industry**  
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E-mail: [info@trc-jub.si](mailto:info@trc-jub.si)**2. HAZARDS IDENTIFICATION****Human health hazards:** Irritant – may cause sensitisation by skin contact.**Environmental hazards:** Very toxic to aquatic organisms.

The health and environmental hazards of this preparation have been assessed by the conventional method of DPD EC/45/1999.

**3. COMPOSITION/INFORMATION ON INGREDIENTS****Composition:** water -based algistatic biocide, based on benzalkonium and Octyl-isothiazolone.

Hazardous ingredients	Wt.-%	CAS-No. EC-No. INDEX-No.	Danger symbol	Risk phrases
Diethylene glycol	2.5 - 10	111-46-6 203-872-2 603-140-00-6	Xn	22
Quarternary ammonium comp., benzyl-c8-18-alkyldimethyl chlorides	2.5 - 10	63449-41-2 264-151-6 612-140-00-5	C, Xn, N	21/22-34-50
2-Octyl-2H-isothiazol-3-one	< 2.5	26530-20-1 247-761-7 613-112-00-5	T, C, N	22-23/24-34-43-50/53

#### 4. FIRST AID MEASURES

<b>Inhalation</b>	Remove to fresh air, consult doctor in case of symptoms.
<b>Skin contact</b>	Remove contaminated clothing. Wash skin with plenty of water, use soap.
<b>Eyes contact</b>	Flush eyes with water for 10 to 15 minutes, get medical attention.
<b>Ingestion</b>	Only when conscious, rinse mouth, give two glasses of water to drink. <b>Obtain medical attention immediately.</b>

#### 5. FIRE-FIGHTING MEASURES

**Extinguishing media.** Foam, dry powder, carbon dioxide.  
**Protective equipment.** Wear self contained breathing apparatus and protective clothing.  
**Fire fighting procedures.** Keep adjacent containers cool by spraying with water.

In case of fire, toxic incineration product may be released such as: NO<sub>x</sub>, CO, SO<sub>2</sub>

#### 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions.** Avoid contact with skin and eyes. Remove ignition sources.

**Environmental precautions.** Prevent contamination of soil and water. Advise authorities if product has entered or may enter watercourses. Do not empty into drains or water.

**Cleaning / Disposal.** Absorb or contain liquid with sand, earth or spill control material. Shovel up and place in a labelled container for subsequent safe disposal.

Dispose of contaminated material as waste according to sect.13.

#### 7. HANDLING AND STORAGE

**Handling.** Remove ignition sources. Avoid contact with skin and eyes. Use only in well-ventilated areas.

**Storage.** Keep containers closed. Store in a cool, well-ventilated place. Protect material from direct sunlight. Keep out of reach of children.

#### 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

**Engineering control measures.** Use only in well-ventilated areas.

**Occupational exposure limits.**

This product contains:

Diethylene glycol (CAS 111-46-6): 2.5 – 10%, 44.0 mg/m<sup>3</sup>

Octyl- isothiazolone (CAS 26530-20-1) < 2.5%, 0.05 mg/m<sup>3</sup>

**Respiratory protection.** Normally not necessary. Use filter A/P2 when aerosol is formed.

**Hand protection.** Prolonged or repeated contact with skin: wear nitrile rubber(chemical resistant) gloves (EN 374) and use skin cream for skin protection.

**Body protection.** / provide skin protection plan.

**Eye protection.** Use splash goggles when eye contact may occur.

**Hygiene measures.** Wash hands before breaks and immediately after handling the product. When using do not eat, drink or smoke.

Product: ALGICID PLUS

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	liquid
<b>Colour:</b>	Colourless to pale yellow
<b>Odour:</b>	Typical mild
<b>pH:</b>	4.0 – 4.5
<b>Boiling point / range:</b>	Cca 100 °C
<b>Flash point:</b>	Not applicable
<b>Density:</b>	App. 1.005 kg/dm <sup>3</sup> /20°C
<b>Viscosity:</b>	12,5 s(φ4mm)/20°C
<b>Explosion limits:</b>	Not applicable
<b>Vapour pressure:</b>	23 mbar/20°C
<b>Solubility in water:</b>	Fully miscible with water
<b>Solids content:</b>	app.12 wt.%

## 10. STABILITY AND REACTIVITY

**Stability.** Stable under normal use conditions.

**Hazardous decomposition products.** CO, CO<sub>2</sub>, NO<sub>x</sub>. Avoid strong chemical oxidizing and reducing agents.

**Dangerous reactions:** No dangerous reactions known, if storage and handling are done according to specification.

## 11. TOXICOLOGICAL INFORMATION

**Basis for assessment.** Information given is based on data on the components and the toxicology of similar products. Vapour concentration above recommended exposure levels may cause headaches and dizziness. Ingestion may be irritating to the respiratory tract. May cause sensitization by skin contact. Irritating to eyes and skin. The fully cured product is not health hazardous.

From structurally related products the following may be expected:

Acute toxicity:

Oral(rat): LD<sub>50</sub> >2000 mg/kg

Primary irritation effects:

Eyes(rabbit): slightly irritating

Skin(rabbit): slightly irritating. May cause sensitization.

After contact with the skin for a certain period of time even small quantities of chemicals classified as irritant may affect the skin. Always take first aid measures when skin contact has taken place.

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## 12. ECOLOGICAL INFORMATION

**Basis for assessment.** Incomplete ecotoxicological data are available. The information given below is based partly on a knowledge of the components and the ecotoxicology of similar products. The active ingr. are biodegradable up to the MIC for bacteria.

**Persistence/degradability.** This product does not biodegradable rapidly. It is soluble in water.

**Ecotoxicology.** Toxic to aquatic organisms. Do not empty into drains or water.

The active OIT provided to be biodegradable in the simulation test "Aerobic mineralisation in Surface water – Simulation Biodegradation Test" according to OECD guideline 309 at test conc. of 0.01 mg/l and 0.1 mg/l. OIT is rapidly degraded in natural river water, and the DT50 (degradation half time= time needed to reach a value of 50% biodegradation, i.e. 50% of the substance are degraded) ranges between 1 and 3 days. DT90 (degradation of 90% of the substance) is reached after 3 to 5 days.

The active BAC proved to be biodegradable in the simulation test OECD 301D (closed Bottle. Test) , O2 consumption:> 60%.

**Mobility and bioaccumulation potential:** Low potential to bioaccumulate , log Kow <3

**From structurally related products the following effect may be expected:**

	OIT (CAS: 26530-20-1)	BAS (CAS: 63449-41-2)	
LC <sub>50</sub> fish / 96h	0.03 mg/l	0.85 mg/l	( <i>Oncorhynchus mykiss</i> )
EC <sub>50</sub> daphnia / 48h	0.10 mg/l	0.016 mg/l	( <i>Daphnia magna</i> )
IC <sub>50</sub> algae / 72h	0.084 mg/l	0.02 mg/l	( <i>Selen. capricornutum</i> )

The product does not contain substances, which can influence the AOX of waste water.

The biocidal product does not contain heavy metal and their compounds according to the Directive EC/11/2006. It contains materials that are harmful to the environment. Sewage that contain this product may not be released into the aquatic environment without preliminary treatments on biological purification plant.

## 13. DISPOSAL CONSIDERATIONS

Product must be disposed according to local regulation pertaining to the disposal of hazardous waste. Liquid waste is classified as **hazardous: EWC: 16 03 05\* (organic wastes containing dangerous substances)**. Liquid waste must not be disposed together with domestic wastes, poured into water or in sewage system.

Disposal according to the national legislation. Remove all product from packaging and clean thoroughly before recycling. Waste packaging is classified as packaging containing residues or contaminated by dangerous substances - **EWC: 15 01 10\***.

**14. TRANSPORT INFORMATION****Land transport ADR/RID:**

Class:	9 Miscellaneous dangerous substances and articles.
ICAO-Labels	90
UN-No	3082
Packaging group	III
ADR/RID-Labels	9, Symbol (fish and tree)
Description of the goods:	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Quaternary ammonium compounds, benzyl-c8-C18-alkyldimethyl chlorides)
Tunnel restriction code:	E

**Maritime transport IMDG****Air transport ICAO/IATA**

Class:	9
UN-No	3082
Packaging group	III
EMS No.	none
Marine pollutant	Yes (P)
Labels	9, Symbol (fish and tree)
Description of the goods:	3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (contains Quaternary ammonium compounds, benzyl-c8-C18-alkyldimethyl chlorides)
Remarks:	Packaging instructions - max. net weight: passenger and cargo aircraft: 914 / 450 L.

**15. REGULATORY INFORMATION****Danger symbols:**

Xi, IRRITANT,

N, DANGEROUS FOR THE ENVIRONMENT

contains:

Quaternary ammonium comp., benzyl-c8-C18-alkyldimethyl chlorides (CASD 63449-41-2) and 2-octyl-2H-isothiazolone (CAS 26530-20-1)

**R- Phrases:** R 43 May cause sensitisation by skin contact.  
R 50 Very toxic to aquatic organisms.

**S- Phrases:** S 2 Keep out of reach of children.  
S 24 Avoid contact with skin.  
S 26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
S 28 After contact with skin, wash immediately with plenty of water.  
S 37 Wear suitable gloves.  
S 60 This material and its container must be disposal of as hazardous waste.  
S 61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.

## 16. OTHER INFORMATION

### Explanation to R-phrases in section 2

R 21/22 Harmful in contact with skin and if swallowed.

R 22 Harmful if swallowed.

R 23/24 Toxic by inhalation and in contact with skin.

R 34 Causes burns.

R 43 May cause sensitization by skin contact.

R 50 Very toxic to aquatic organisms.

R 50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

This MSDS is issued in accordance with the EU Regulation 1907/2006/EC concerning REACH. The classification and labelling of the preparation are made according to the EU Directive 1999/45/EC as well as the international transport regulation is being considered.

The information contained herein relates only to the specific product identified. The information given is designed only as a guidance for safe handling, use, storage, transportation, disposal and release and is not to be considered a warranty or guarantee or quality specification.

It remains the user's own responsibility to make sure that the information is appropriate and complete for his special use of this product.

### Information about limitation of use:

- protection of young people at work
- safety and health of pregnant women at work

### Indication of VOC according to directive EC/42/2004:

Max VOC content: 57 g/L

### Recommended application fields and dose level for biocide:

Masonry preservative (PT10): 100 -180 g/kg

Date of the 1<sup>st</sup> preparation: Sept. 29, 2010

Date of previous issue: Sept. 29, 2010

Date of revision (version 02): Oct. 29, 2010

**This MSDS has been revised in sections: 1 and 16.**