

**MATERIAL SAFETY DATA SHEET****ALGICID**

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Version 07

1. IDENTIFICATION OF THE PREPARATION AND OF THE COMPANY

Product name: **ALGICID**

Product description: Anti-mildew surface cleaner.

Producer: JUB chemical industry
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2. HAZARDS IDENTIFICATION

Human health hazards: Irritating to eyes and skin.

Environmental hazards. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Composition: water -based algistatic biocide.

Hazardous ingredients	Wt.-%	CAS-No. EC-No. INDEX-No.	Danger symbol	Risk phrases
N'-tert-butyl-N-cyclopropyl-6-(methyltio)-1,3,5-triazine-2,4-diamine	< 2,5	28159-98-0 248-872-3 002-488-72-3	Xi, N	43-50/53
Didecyldimethyl-ammonium chloride	2,5 - 10	7173-51-5 230-525-2 612-131-00-6	Xn,C	22-34-50
Propan-2-ol	2,5 - 10	67-63-0 200-661-7 603-117-00-0	F, Xi	11-36-67
Diethylene glycol mono-butyl ether	10 - 25	112-34-5 203-961-6 603-096-00-8	Xi	36

4. FIRST AID MEASURES

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

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.

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.

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 monobutyl ether: 100 mg/m³

Respiratory protection. Normally not necessary.

Hand protection. Prolonged or repeated contact with skin: wear nitrile rubber(chemical resistant) gloves.

Body protection. /

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.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	liquid
Colour:	colourless
Odour:	typical
pH:	6 - 8
Boiling point / range:	82 °C
Flash point:	> 61 °C
Density:	app. 1 kg/dm ³ /20°C
Viscosity:	12,5 s(φ4mm)/20°C
Explosion limits:	
lower:	0,7 vol % (for the Diethylene glycol monobutyl ether)
upper:	5,3 vol %
Vapour pressure:	23 hPa/20°C
Solubility in water:	miscible with water
Solids content:	app.12 wt.%

10. STABILITY AND REACTIVITY

Stability. Stable under normal use conditions.

Hazardous decomposition products. CO, CO₂, NO_x. Avoid strong oxidising agents.

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:

1) Triazine compound (CAS-No. 28159-98-0)

Acute toxicity:

Oral(rat): LD₅₀ >2000 mg/kg

Primary irritation effects:

Eyes(rabbit):not irritating

Skin(rabbit):not irritating. May cause sensitization.

2) Didecyldimethylammonium chloride (CAS-No. 7173-51-5)

Acute toxicity:

Oral(rat): LD₅₀: 200 - 2000 mg/kg

Primary irritation effects:

Eyes: Risk of serious damage to eyes.

Skin: Corrosive.

3) Diethylene glycol monobutyl ether (CAS-No. 112-34-5)

Acute toxicity:

Oral(rat): LD₅₀: 5,47 – 7,86 g/kg

Dermal (rabbit, 24 hours): LD₅₀: 2,53 – 6,55 ml/kg

Primary irritation effects:

Eyes(rabbit): 0,02ml: severe corneal injury

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.

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

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

From structurally related products the following may be expected:

1) Triazine compound (CAS-No. 28159-98-0)

Ecotoxicity

Fish LC₅₀ 0, 86 mg/l

Daphnia EC₅₀ 8, 10 mg/l

Algae IC₅₀ 0, 0014 mg/l

Water hazard: class 3 (German regulation, self-assessment): very hazardous for water.

2) Didecyldimethylammonium chloride (CAS-No. 7173-51-5)

Ecotoxicity

Fish LC₅₀ < 1 mg/l / 96 hours

Daphnia EC₅₀ < 1 mg/l / 48 hours

Algae IC₅₀ < 1 mg/l / 72 hours

3) Diethylene glycol monobutyl ether (CAS-No. 112-34-5)

Ecotoxicity

Fish LC₅₀ 2500 mg/l / 96 hours

Daphnia EC₅₀ >1000 mg/l

Algae IC₅₀ >1000 mg/l

13. DISPOSAL CONSIDERATIONS

Liquid waste is classified as **harmful: EWC: 08 01 11***. Liquid waste must not be disposed together with domestic wastes, poured into water or in sewage system.

Disposal according to the national legislation. 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
Description of the goods: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (contains Triazine compound and
Didecyldimethylammonium chloride)

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

Class: 9
UN-No 3082
Packaging group III
EMS No. none
Marine pollutant Yes (P)
Description of the goods: 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE,
LIQUID, N.O.S. (contains Triazine compound and
Didecyldimethylammonium chloride)

15. REGULATORY INFORMATION**Danger symbol:**

Xi, IRRITANT,
N, DANGEROUS FOR THE ENVIRONMENT
contains Triazine compound and Didecyldimethylammonium chloride

R- Phrases: R 36/38 Irritating to eyes and skin.
R 50/53 Very toxic to aquatic organisms, may cause long-term adverse
effects in the aquatic environment.

S- Phrases: S 2 Keep out of reach of children.
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 29 Do not empty into drains.
S 46 If swallowed, seek medical advice immediately and show this container
or label.
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 10 Flammable.

R 22 Harmful if swallowed.

R 34 Causes burns.

R 36 Irritating to eyes.

R 36/37/38 Irritating to eyes, respiratory system and skin.

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.

R 67 Vapours may cause drowsiness and dizziness.

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.

Date of the 1st preparation: March 26, 1997

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This MSDS has been revised in sections: 1, 2, 3 and 16.