



Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 24.10.2014

Version number 10

Revision: 24.10.2014

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

- **1.1 Product identifier**
- **Trade name: KEIM Algicid (Algicid-Plus)**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Application of the substance / the mixture** Biocide
- **Uses advised against** All other uses are not recommended.
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 KEIM MINERAL PAINTS LTD
 Santok Building
 Deer Park Way
 Donnington Wood
 Telford
 Shropshire
 TF2 7NA
 United Kingdom
 Tel: +44 1952 231250
 Fax: +44 1952 231251
 Url: <http://www.keimpaints.co.uk>
- **Further information obtainable from:**
 David Pratt
 Telefon: +44 1952 231250
 E-Mail: sales@keimpaints.co.uk
- **1.4 Emergency telephone number:**
 GBK Gefahrgut Büro GmbH
 Emergency number: +49(0)6132/84463

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
 Skin Sens. 1 H317 May cause an allergic skin reaction.
- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**
 Xi; Sensitising
 R43: May cause sensitisation by skin contact.
- **Classification system:**
 The classification is according to the latest editions of the EU-lists, and extended by company and literature data.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**
 The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms**
- 
 GHS07
- **Signal word** Warning

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- **Hazard-determining components of labelling:**
2-octyl-2H-isothiazol-3-one
didecyldimethylammonium chloride
- **Hazard statements**
H317 May cause an allergic skin reaction.
- **Precautionary statements**
P102 Keep out of reach of children.
P261 Avoid breathing spray.
P280 Wear protective gloves.
P363 Wash contaminated clothing before reuse.
P302+P352 IF ON SKIN: Wash with plenty of soap and water.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Information concerning particular hazards for human and environment:**
Contact with skin and inhalation of aerosols/ vapours of the preparation should be avoided.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

SECTION 3: Composition/information on ingredients

- **3.2 Mixtures**
- **Description:** Isothiazolinone-preparation

- **Dangerous components:**

CAS: 26530-20-1 EINECS: 247-761-7 Index number: 613-112-00-5	2-octyl-2H-isothiazol-3-one T R23/24; C R34; Xn R22; Xi R43; N R50/53 Acute Tox. 3, H311; Acute Tox. 3, H331; Skin Corr. 1B, H314; Aquatic Acute 1, H400; Aquatic Chronic 1, H410; Acute Tox. 4, H302; Skin Sens. 1, H317	0.081%
CAS: 7173-51-5 EINECS: 230-525-2 Index number: 612-131-00-6	didecyldimethylammonium chloride C R34; Xn R22 Skin Corr. 1B, H314; Acute Tox. 4, H302	0.36%

- **Additional information:** For the wording of the listed risk phrases refer to section 16.

SECTION 4: First aid measures

- **4.1 Description of first aid measures**
- **General information:**
When seeing the doctor we suggest to present this safety data sheet.
- **After inhalation:**
Supply fresh air and to be sure call for a doctor.
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**
Immediately wash with water and soap and rinse thoroughly.
If skin irritation continues, consult a doctor.

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- **After eye contact:**
Rinse opened eye for several minutes under running water. Then consult a doctor.
- **After swallowing:**
Rinse mouth and throat well with water.
Do not induce vomiting; call for medical help immediately.
- **4.2 Most important symptoms and effects, both acute and delayed**
No further relevant information available.
- **4.3 Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **5.2 Special hazards arising from the substance or mixture**
No further relevant information available.
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear self-contained respiratory protective device.
- **Additional information**
In case of fire do not breath smoke, fumes and vapours.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Avoid contact with skin and eyes.
Do not inhale fumes.
Ensure adequate ventilation
Respect the protection rules (see section 7 a. 8).
Keep casual persons away.
- **6.2 Environmental precautions:**
Do not allow product to reach soil, sewage system or any water course.
Follow local governmental rules and regulations.
- **6.3 Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the material collected according to regulations.
Clear contaminated areas thoroughly.
- **6.4 Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Keep receptacles tightly sealed.

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- Ensure good ventilation/exhaustion at the workplace.
- Avoid contact with skin and eyes.
- Prevent formation of aerosols.
- See item 8 for information about suitable protective equipment and technical precautions.
- Respect the protection rules.
- **Information about fire - and explosion protection:** No special measures required.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:**
 - Store only in unopened original receptacles.
 - Keep in the original containers in a cool and dry place.
- **Information about storage in one common storage facility:**
 - Store away from reducing agents.
 - Store away from oxidising agents.
 - Do not store together with alkalis (caustic solutions).
- **Further information about storage conditions:**
 - Store in a cool place.
 - Protect from frost.
 - Protect from heat and direct sunlight.
- **Storage class:** 12
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **8.1 Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**
 - The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists valid during the making were used as basis.
- **8.2 Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
 - Immediately remove all soiled and contaminated clothing
 - Wash hands before breaks and at the end of work.
 - Avoid contact with the eyes and skin.
 - Do not inhale aerosols.
- **Respiratory protection:**
 - Use suitable respiratory protective device only when aerosol or mist is formed.
- **Protection of hands:** Protective gloves
- **Material of gloves**
 - suitable material e.g.:
 - Nitrile impregnated cotton-gloves
 - Butyl rubber, BR
 - Recommended thickness of the material: ≥ 0.5 mm
 - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

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- **Penetration time of glove material**
Value for the permeation: Level \geq 6 (480 min)
The determined penetration times according to EN 374 part III are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.
- **Eye protection:** Safety glasses
- **Body protection:** Protective work clothing

SECTION 9: Physical and chemical properties

- **9.1 Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Colour:	Clear
Odour:	Odourless
Odour threshold:	Not determined.
- **pH-value at 20 °C:** 6
- **Change in condition**

Melting point/Melting range:	~0 °C
Boiling point/Boiling range:	100 °C
- **Flash point:** > 100 °C
- **Flammability (solid, gaseous):** Not applicable.
- **Ignition temperature:**
- **Decomposition temperature:** Not determined.
- **Self-igniting:** Product is not selfigniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**

Lower:	Not applicable.
Upper:	Not applicable.
- **Oxidising properties:** Not applicable.
- **Vapour pressure at 20 °C:** ~23 hPa
- **Density at 20 °C:** 1* g/cm³
- **Relative density:** Not determined.
- **Vapour density:** Not applicable.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not applicable.
- **Viscosity:**

Dynamic:	Not determined.
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<p>Kinematic:</p> <p>· 9.2 Other information</p>	<p>Not determined.</p> <p>* The values are for freshly produced material and may change with the time.</p>
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SECTION 10: Stability and reactivity

- **10.1 Reactivity**
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:**
reducing agents
oxidizing agents
Bases
- **10.6 Hazardous decomposition products:**
No hazardous decomposition products if stored and handled as prescribed.

SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values relevant for classification:**

26530-20-1 2-octyl-2H-isothiazol-3-one

Oral	LD50	318 mg/kg (rat) (OECD 401)
Dermal	LD50	311 mg/kg (rabbit) (OECD 402)
Inhalative	LC50/4 h	0.58 mg/l (rat) (OECD 403)

7173-51-5 didecyldimethylammonium chloride

Oral	LD50	84 mg/kg (rat)
Dermal	LD50	1300 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Frequent persistent contact with the skin may cause skin irritation.
- **on the eye:** In case of longer exposure, irritating effect is possible.
- **during swallowing:** Irritant effect possible
- **Other information (about experimental toxicology):**
Experimental analysis are not available.
- **Additional toxicological information:**
The product shows the following dangers according to the calculation method of the General EU Classification Guidelines for Preparations as issued in the latest version:
Irritant
- **Sensitisation** May cause sensitisation by skin contact.

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SECTION 12: Ecological information

· 12.1 Toxicity

· Aquatic toxicity:

26530-20-1 2-octyl-2H-isothiazol-3-one

EC 50/48h	0.32 mg/l (daphnia) (OECD 202)
LC 50/96 h	0.047 mg/l (fish) (OECD 203)
NOEC	0.058 mg/l (daphnia) (21d)

7173-51-5 didecyldimethylammonium chloride

EC 50/48h	0.062 mg/l (daphnia)
EC 50/96h	0.014 mg/l (algae)
LC 50/96 h	0.19 mg/l (fish)

· **12.2 Persistence and degradability** No further relevant information available.

· **12.3 Bioaccumulative potential** No further relevant information available.

· **12.4 Mobility in soil** No further relevant information available.

· Additional ecological information:

· AOX-indication:

The product can take influence in small measure on the AOX-load of the waste water.

· According to the formulation contains the following heavy metals and compounds from the EU guideline NO. 2006/11/EC:

According to our current data base the product does not consist of any heavy metals or substances of EU-directives 76/464/EWG.

· General notes:

At present there are no ecotoxicological assessments.

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water

· 12.5 Results of PBT and vPvB assessment

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **12.6 Other adverse effects** No further relevant information available.

SECTION 13: Disposal considerations

· 13.1 Waste treatment methods

· Recommendation

Disposal must be made according to official regulations.

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· European waste catalogue

07 06 99	wastes not otherwise specified
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· Uncleaned packaging:

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

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SECTION 14: Transport information

· 14.1 UN-Number · ADR, IMDG, IATA	Void
· 14.2 UN proper shipping name · ADR, IMDG, IATA	Void
· 14.3 Transport hazard class(es) · ADR, IMDG, IATA · Class	Void
· 14.4 Packing group · ADR, IMDG, IATA	Void
· 14.5 Environmental hazards: · Marine pollutant:	No
· 14.6 Special precautions for user	Not applicable.
· 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	No dangerous good in sense of these transport regulations.
· UN "Model Regulation":	-

SECTION 15: Regulatory information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- National regulations:
- **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
- **Other regulations, limitations and prohibitive regulations**
- **Please note:**
TRGS 200 (Germany)
TRGS 500 (Germany)
TRGS 510 (Germany)
TRGS 900 (Germany)
- **Product-Code/Giscode:** GD0
- 15.2 Chemical safety assessment:
A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Relevant phrases**
H302 Harmful if swallowed.
H311 Toxic in contact with skin.

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H314 Causes severe skin burns and eye damage.
 H317 May cause an allergic skin reaction.
 H331 Toxic if inhaled.
 H400 Very toxic to aquatic life.
 H410 Very toxic to aquatic life with long lasting effects.

R22 Harmful if swallowed.
 R23/24 Toxic by inhalation and in contact with skin.
 R34 Causes burns.
 R43 May cause sensitisation by skin contact.
 R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

· **Department issuing MSDS:** KEIMFARBEN Germany, Product safety department

· **Contact:** Mrs. Popescu

· **Abbreviations and acronyms:**

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

EC10: Effective concentration at 10% mortality rate.

EC50: Half maximal effective concentration.

LC10: Lethal concentration at 10% mortality rate.

NOEC: No observed effect concentration.

REACH: Registration, Evaluation and Authorisation of Chemicals (Regulation (EC) No.1907/2006)

Acute Tox. 4: Acute toxicity, Hazard Category 4

Acute Tox. 3: Acute toxicity, Hazard Category 3

Skin Corr. 1B: Skin corrosion/irritation, Hazard Category 1B

Skin Sens. 1: Sensitisation - Skin, Hazard Category 1

Aquatic Acute 1: Hazardous to the aquatic environment - AcuteHazard, Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - Chronic Hazard, Category 1

· * **Data compared to the previous version altered.**