

SAFETY DATA SHEET

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

Version: 1 Revision Date: 29.04.2020

ALGAECIDE

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name: *Algaecide*
Product Code: *ALGA05*
REACH Registration Number: *All components / constituent materials used in this product have been registered under REACH where required.*
EC No: -
CAS No: -

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

No additional information available

1.3 Details of the supplier of the safety data sheet

Company: **CHAUCER SOLUTIONS LIMITED**
Address: *Beodric House
5 Boldero Road
Bury St. Edmunds
Suffolk
IP32 7BS
United Kingdom*
Telephone: *+ 44 (0) 1767 677445*
E-mail: *admin@chaucersolutions.co.uk*

1.4 Emergency telephone number

+ 44 (0) 1767 677445 (Only available during office hours)

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Classification (according to Regulation (EC) No. 1272/2008):

*Skin corrosion/irritation, Category 1B H314: Causes severe skin burns and eye damage.
Serious eye damage / irritation, Category 1 H318: Causes serious eye damage.
Aquatic Chronic Category 2 H411: Toxic to aquatic life with long lasting effects.*

2.2 Label elements

Hazards which must be listed:

CAS: 68424-85-1 Quaternary ammonium compounds, benzyl-C12-16-alkyldimethyl, chlorides

REGULATION (EC) No. 1272/2008

Pictogram(s):



Signal Word: **DANGER**

Hazard Statements:

- H314: Causes severe skin burns and eye damage.*
H318: Causes serious eye damage.
H411: Toxic to aquatic life with long lasting effects.

Precautionary Statements:

- P264: Wash hands, forearms and face thoroughly after handling.*
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response:

- P301+P330+P331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.*
P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310: Immediately call a POISON CENTER or doctor.
P363: Wash contaminated clothing before reuse.
P391: Collect spillage.

Storage: *P405: Store locked up.*

Disposal: *P501: Dispose of contents / container to a waste management service provider, according to the local law and regulations.*

2.3 Other Hazards *None known*

3. COMPOSITION OF/INFORMATION ABOUT THE COMPONENTS

3.1 Substances

CAS number:

Chemical Name	CAS-No. EINECS-No.	Classification REGULATION (EC) No 1272/2008	Concentration [%]
<i>Quaternary ammonium compounds, benzyl (C12 - C16) alkyl dimethyl,</i>	<i>68424-85-1 270-325-2</i>	<i>Acute Tox. 4 (Oral), H302; Skin Corr. 1B, H314; Eye Dam. 1, H318; Aquatic Acute 1, H400; Aquatic Chronic 1, H410</i>	<i>>=10 - <30 %</i>

For the full text of the H - statements mentioned in this section, see section 16.

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: *Take the Hazard and Precautionary Statements (section 2) into account. Show this Safety Data Sheet to the physician in attendance if required.*

Inhalation: *Remove from exposure site to fresh air and keep at rest. Contact physician if symptoms persist.*

Skin contact: *Remove contaminated clothes. Wash thoroughly with water (and soap). Contact physician if symptoms persist.*

Eye contact: *Flush immediately with water for at least 15 minutes. Remove contact lenses if possible. Contact physician if symptoms persist.*

Ingestion: *Rinse mouth with water and Contact physician if symptoms persist. Do NOT induce vomiting.*

4.2 Most important symptoms and effects, both acute and delayed

No additional information

4.3 Indication of any immediate medical attention and special treatment needed

Provide physician with a copy of this Safety Data Sheet.

5. FIRE-FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media:

Water spray, carbon dioxide, dry chemical, foam.

Extinguishing media which shall not be used for safety reasons:

Do not use a high powered water jet directly on burning material.

5.2 Special Hazards arising from the substance or mixture

Combustible liquid; toxic gases may be released.

5.3 Advice for Fire Fighters

Special protective equipment for fire fighting:

Full protective suit.

Self-contained breathing apparatus (EN 133)

Specific fire fighting methods:

Do not use a high powered water jet directly on burning material.

Do not inhale fumes.

Evacuate personnel to a safe area.

Cool containers / tanks with water spray.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition, and keep away from flames and hot surfaces. Avoid inhalation and contact with skin and eyes. Wear appropriate personal protective equipment. A self contained breathing apparatus is recommended in case of a major spill. Collect Spillage.

6.2 Environmental precautions

Keep away from drains, surface and ground water and soil.

6.3 Methods for cleaning or taking up

Clean up spillage promptly. Remove ignition sources. Provide adequate ventilation. Avoid excessive inhalation of vapours. Gross spillages should be contained by use of sand or inert powder and disposed of according to the local regulations.

7. HANDLING AND STORAGE

7.1 Handling

Advice on safe handling:

Avoid contact with the eyes, skin and clothing. Avoid excessive inhalation of concentrated vapours. Follow good manufacturing practices for housekeeping and personal hygiene. Wash any exposed skin immediately after any chemical contact, before breaks and meals, and at the end of each working period. Contaminated clothing and shoes should be thoroughly cleaned before re-use.

If appropriate, procedures used during the handling of this material should also be used when cleaning equipment or removing residual chemicals from tanks or other containers, especially when steam or hot water is used, as this may increase vapour concentrations in the work place air. Where chemicals are openly handled, access should be restricted to properly trained employees.

Keep all heated processes at the lowest necessary temperature in order to minimize emissions of volatile chemicals into the air.

Advice on protection against fire and explosion:

Keep away from ignition sources and naked flame.

7.2 Storage

Requirements for storage areas and containers:

Store in a cool, dry, ventilated area away from heat sources. Keep containers upright and tightly closed when not in use.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control measures

Engineering measures

Advice: *Where appropriate, use closed systems to transfer and process this material. If appropriate, isolate mixing rooms and other areas where this material is used or openly handled. Maintain these areas under negative air pressure relative to the rest of the plant.*

8.2 Personal protective equipment



Respiratory protection:

Use local exhaust ventilation around open tanks and other open sources of potential exposures in order to avoid excessive inhalation including places where this material is openly weighed or measured.

In addition, use general dilution ventilation of the work area to eliminate or reduce possible worker exposures. No respiratory protection is required during normal operations in a workplace where engineering controls such as adequate ventilation, etc. are sufficient.

If engineering controls and safe work practices are not sufficient, an approved, properly fitted respirator with organic vapor cartridges or canisters and particulate filters should be used:

- a) while engineering controls and appropriate safe work practices and/or procedures are being implemented; or*
- b) during short term maintenance procedures when engineering controls are not in normal operation or are not sufficient; or*
- c) if normal operational workplace vapour concentration in the air is increased due to heat;*
- d) during emergencies; or*

e) if engineering controls and operational practices are not sufficient to reduce airborne concentrations below an established occupational exposure limit.

Hand protection: *Avoid skin contact. Use chemically resistant gloves. (PE/PA/PE), 2.5mil (0.06mm), >480 min. To protect hands from chemicals, gloves should comply with European Standard EN374.*

Skin and body protection:
Avoid contact with the skin. Wear a protective suit. Wash all contaminated clothing thoroughly before re-use.

Eye protection: *Avoid contact with the eyes. Use tight-fitting goggles, face shield or safety glasses with side shields. Personal protective equipment for eye and face protection should comply with European Standard EN166. Provide eyewash station.*

Hygiene Measures:
Ensure that eyewash stations and safety showers are close to the workstation location. Use clean, well-maintained personal protection equipment. Wash hands before breaks and at the end of the work day. Do not eat, drink or smoke whilst using or handling the product.

To the extent deemed appropriate, implement pre-placement and regularly scheduled ascertainment of symptoms and spirometry testing of lung function for workers who are regularly exposed to this material.

To the extent deemed appropriate, use an experienced air sampling expert to identify and measure volatile chemicals that could be present in the workplace air or determine potential exposures and to ensure the continuing effectiveness of engineering controls and operational practices to minimize exposure.

Protective measures:
The protective equipment must be selected in accordance with current CEN standards and in cooperation with the supplier of the protective equipment. Selection of appropriate personal protective equipment should be based on an evaluation of the performance characteristics of the protective equipment relative to the task(s) to be performed, conditions present, duration of use, and the potential hazards and / or risks that may occur during use.

General Advice: *Do not allow uncontrolled discharge of the product into the environment.*

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Appearance

Physical state: *Liquid*
Colour: *Clear*
Odour: *Characteristic*

9.2 Safety data

Flash Point: *No data available*
Relative Density: *1.000 – 1.030 at 20°C*
Refractive Index: *No data available*
Boiling point: *No data available*
pH: *6 - 9*
Vapour Pressure: *No data available*
Solubility: *No data available*
Volatile Organic Compounds:
No data available
LogP (o/w): *No data available*
Explosive Properties:
No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity

This product is not considered reactive under normal working conditions.

10.2 Chemical Stability

This product is stable at room temperature.

10.3 Possibility of hazardous reactions

This product may react with strong oxidizing agents, acids and / or alkalis.

10.4 Conditions to avoid

Keep away from heat, sparks and open flame.

10.5 Incompatible materials

Strong oxidizing agents acids and alkalis.

10.6 Hazardous decomposition products

Toxic Gas (Carbon Monoxide and Carbon Dioxide) and unidentified organic compounds may be formed during combustion).

11. TOXICOLOGICAL INFORMATION

11.1 Acute Toxicity

Acute oral toxicity:

LD50 (Rat) 795 mg/kg

Acute inhalation toxicity:

No data available.

Acute dermal toxicity:

Causes severe skin burns and eye damage.

Acute dermal toxicity (other routes of administration):

No data available.

Aspiration toxicity:

No data available.

11.2 Skin corrosion/irritation

Skin irritation: *Causes severe skin burns and eye damage.*

11.3 Serious eye damage/eye irritation

Eye irritation: *Causes severe eye damage.*

11.4 Respiratory or skin sensitization

Sensitisation: *Causes severe skin burns and eye damage.*

11.5 Aspiration hazard:

Sensitisation: *No data available*

11.6 Repeated dose toxicity

Repeated dose toxicity:

No data available.

11.7 STOT

STOT – single exposure:

May cause respiratory irritation.

STOT – repeated exposure:

No data available.

11.8 Carcinogenicity

Carcinogenicity: *No data available.*

11.9 Mutagenicity

Genotoxicity in vitro:

No data available.

Genotoxicity in vivo:

No data available.

11.10 Reproductive toxicity

Reproductive toxicity:

No data available.

Developmental toxicity/Teratogenicity:

No data available.

12. ECOLOGICAL INFORMATION

12.1 Ecotoxicity effects

Aquatic Compartment (including sediment)

Acute Fish Toxicity: LC50 0.85 mg/L (96h) Oncorhynchus mykiss (Rainbow trout)

Aquatic Invertebrate Toxicity: EC50 0.016 mg/l Daphnia magna

NOEC 0.025 mg/l Daphnia magna

12.2 Persistence and degradability

Biodegradability: *90% / 14d*

Readily biodegradable

12.3 Bioaccumulation

Partition coefficient (n-octanol/water):

No data available.

12.4 Mobility

Known distribution to environmental compartments:

No data available.

12.5 Other adverse effects

Environmental assessment:

Based on available data the product is classified Aquatic Chronic, Category 2 (H411: Toxic to aquatic life with long lasting effects).

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product: *Dispose of according to local regulations. Do NOT dispose of into drainage systems and into the environment.*

Contaminated packaging:

Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. TRANSPORT INFORMATION**14.1 ADR**

UN-Number: 1760
Dangerous Goods Description: CORROSIVE LIQUIDS, N.O.S.
Class: 8
Packing group: III
Classification Code: C9
Tunnel restriction code: (E)
Environmentally hazardous mark: Yes
Hazard identification no: 80

14.2 RID

UN-Number: 1760
Dangerous Goods Description: CORROSIVE LIQUIDS, N.O.S.
Class: 8
Packing group: III
Classification Code: C9
Environmentally hazardous mark: Yes
Hazard identification no: 30

14.3 IATA

UN-Number: 1760
Dangerous Goods Description: CORROSIVE LIQUIDS, N.O.S.
Class: 8
Packing group: III
Environmentally hazardous mark: Yes

14.4 IMDG

UN-Number: 1760
Dangerous Goods Description: CORROSIVE LIQUIDS, N.O.S.
Class: 8
Packing group: III
Marine pollutant (environmentally hazardous mark): Yes
EmS Code: F-A, S-B

14.5 ADN / ADNR

UN-Number: 1760
Dangerous Goods Description: CORROSIVE LIQUIDS, N.O.S.
Class: 8
Packing group: III
Environmentally hazardous mark: Yes

Note: The above regulatory prescriptions are those valid on the date of publication of this sheet. Given the possible evolution of transport regulations for hazardous materials, it would be advisable to regularly check their validity.

15. REGULATORY INFORMATION

National regulations: *Control of Substances Hazardous to Health Regulations 2002 (as amended).
Health and Safety at Work etc. Act 1974 (as amended).*

EU legislation: *Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).*

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

- Guidance: *Workplace Exposure Limits EH40.*
- Authorisations (Title VII Regulation 1907/2006):
No specific authorisations are known for this product.
- Restrictions (Title VIII Regulation 1907/2006):
No specific restrictions on use are known for this product.

16. OTHER INFORMATION

Full text of H – Statements referred to under sections 2 and 3

- H302: Harmful if swallowed.*
- H314: Causes severe skin burns and eye damage.*
- H318: Causes serious eye damage.*
- H400: Very toxic to aquatic life.*
- H410: Very toxic to aquatic life with long lasting effects.*
- H411: Toxic to aquatic life with long lasting effects.*

Full text of P – Statements referred to under sections 2 and 3

- P264: Wash hands, forearms and face thoroughly after handling.*
- P280: Wear protective gloves/protective clothing/eye protection/face protection.*
- P301+P330+P331:*
IF SWALLOWED: rinse mouth. Do NOT induce vomiting.
- P303+P361+P353:*
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water / shower.
- P304+P340:*
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338:*
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310: Immediately call a POISON CENTER or doctor.*
- P363: Wash contaminated clothing before reuse.*
- P391: Collect spillage.*
- P405: Store locked up.*
- P501: Dispose of contents / container to a waste management service provider, according to the local law and regulations*

Further information:

According to Regulation (EC) No. 1907/2006 the information in this safety data sheet is based on the properties of the material known to Chaucer Solutions Ltd at the time the data sheet was issued. The Safety data sheet is intended to provide information for a health and safety assessment of the material and the circumstances, under which it is packaged, stored or applied in the workplace. The information hereon is reliable to the best of our knowledge. However, the recommendations or suggestions hereon shall not be construed as a warranty or representation as to the results, safety and efficacy. Users should always make their own evaluations and tests suitable for their particular needs. We cannot be held liable for any loss or damage arising from the use of the information hereon. This document is not intended for quality assurance purposes.

- End of Safety Data Sheet -