BIOHUB SOLUTIONS

Solutions for today.
Benefits for generations.

BIOHUB ALGONE

Safety Data Sheet

Contents

Overview

1. Identification of the Material and Manufacturer

Product Name	BioHub Algone
Intended Use	Biological Pond Treatment
Details of Company	BioHub Pty Ltd 3/49 Donaldson Road Rocklea, Qld, 4106
Emergency Contact	1300 064 020
UN Number	N/A
D.G. Class	N/A
Subsidiary Risk	None
Hazchem Code	N/A
Packaging Group	N/A
Poisons Schedule	N/A

2. Hazards Identification

OSHA/HSC Status

This material Is considered hazardous by the OSHA Hazard Communication Standard

GHS Label Elements

Signal Word	Warning
Hazard Statements	May form combustible dust concentrations in air.

Precautionary Statements

Prevention	Not applicable.
Response	Not applicable.
Storage	Not applicable.
Disposal	Not applicable.

Supplemental Label Elements Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. Prevent dust accumulation.

Hazards Not Otherwise Classified None known.

3. Composition/Information on Ingredients

Substance/mixture Mixture

Other Means of identification Not available

Ingredient Name	%	CAS Number
Sodium carbonate	<1.6	497-19-8

Any concentration shown as a range Is to protect confidentially or Is due to batch variation

There are no additional Ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed In Section 8.

4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

On Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breath is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth to mouth resuscitation. Get medical attention If adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband.

On Skin Contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

On Ingestion Was out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable to breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical

personnel. If vomiting occurs, the head should be kept low so that the vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Potential Acute Health Effects

Eye Contact	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation to eyes.
On Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throats, and lungs.
On Skin Contact	No known significant effects or critical hazards.
On Ingestion	No known significant effects or critical hazards.

Over-exposure Signs/symptoms

Eye Contact	Adverse symptoms may include the following: Irritation Redness
On Inhalation	Adverse symptoms may include the following: Respiratory tract irritation Coughing
On Skin Contact	No specific data.
On Ingestion	No specific data.

Indication of Immediate Medical Attention and Special Treatment Needed

Notes to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific Treatments	No specific treatment.
Protection of First aiders	No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

5. Fire Fighting Measures

Extinguishing Media

Suitable Extinguishing Media	Use dry chemical powder
Unsuitable Extinguishing Media	Avoid high pressure media which could cause the formation of a potentially explosible dust-air mixture.
Specific Hazards Arising from the Chemical	May form explosive dust-air mixture if dispersed.
Hazardous Thermal Decomposition Products	Decomposition products may include the following materials: Carbon dioxide Carbon monoxide Halogenated compounds Metal oxide/oxides
Special Protective Actions for Fire Fighters	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
Special Protective Equipment for Fire Fighters	Fire fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures

For Non-emergency Personnel	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Shut off all ignition sources. No flares, smoking, or flames in hazard area. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For Emergency Responders	If specialised clothing is required to deal with spillage, take note of any information in Section 8 on suitable and non-suitable materials. See also the information in "For non-emergency personnel".
Environmental Precautions	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product caused environmental pollution.

Methods and Materials for Containment and Cleaning Up

Small Spill	Move containers away from spill area. Use spark proof tools and explosion-proof equipment. Vacuum or sweep up material and place in designated, labelled waste container. Dispose of via licensed waste disposal contractor.
Large Spill	Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. Handling and Storage

Precautions for Safe Handling

Protective Measures	Put on appropriate personal equipment. Do not ingest. Avoid contact with eyes, skin, and clothing. Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Electrical equipment and lighting should be protected to appropriate standards to prevent dust meeting hot surfaces, sparks, or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Empty containers retain product residue and can be hazardous. Do not reuse container.
Advice on General Occupational Hygiene	Eating, drinking, and smoking should be in prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
Conditions for Safe Storage, Including Any Incompatibilities	Store in accordance with local regulations. Store in segregated and approved area. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Eliminate all ignition sources. Separate from oxidising materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

8. Exposure Controls and Personal Protection

Control Parameters

Appropriate Engineering Controls	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below the recommended or statutory limits. The engineering controls also needs to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.
Environmental Exposure Controls	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters, or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
Hygiene Measures	Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
Eye & Face Protection	Safety eyewear complying with the approved standard should be used when a risk assessment indicates that it is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn unless the assessment indicates a higher degree of protection: safety glasses with side-shields. If operating conditions cause high dust concentration to be produced, use dust goggles.
Hand Protection	Chemical resistant, impervious gloves complying with an approved standard should always be worn when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body Protection	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Other Skin Protection	Appropriate footwear and additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory Protection	Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

9. Physical and Chemical Properties

Physical State	Solid (Powder)
Appearance	White
Boiling Point	No information available.
Vapour Pressure	No information available.
Percent Volatiles	No information available.
Specific Gravity	2.181
Flash Point	Closed cup. Not applicable.
Flammability Limits	No information available.
Autoignition Temperature	No information available.
pH (neat)	No information available.
Shelf life	No information available.

10. Stability and Reactivity

Reactivity	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability	The product is stable.
Possibility of Hazardous Reactions	Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to Avoid	Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosions, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible Materials	Not available.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. Toxicological Information

Acute Toxicity

Product/ingredient	Result	Species	Dose	Exposure
Sodium carbonate	LD50 Oral	Rat	4090 mg/kg	

Irritation/Corrosion

Product/ingredient	Result	Species	Score	Exposure	Observation
Sodium carbonate	Eyes - mild irritant	Rabbit		0.5 min. 100mg	
	Eyes - moderate irritant	Rabbit		24 hr. 100mg	
	Eyes - severe irritant	Rabbit		50mg	
	Skin - mild irritant	Rabbit		24 hr. 500mg	

Sensitisation	Not available.
Mutagenicity	Not available.
Carcinogenicity	Not available
Reproductive Toxicity	Not available.
Teratogenicity	Not available.
Specific Target Organ Toxicity (Single Exposure)	Not available.
Specific Target Organ Toxicity (Repeated Exposure)	Not available.
Aspiration Hazard	Not available.
Information on Likely Routes of Exposure	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.

Potential Acute Health Effects

Eye Contact	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation	Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat, and lungs.
Skin Contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Symptoms Related to the Physical, Chemical, and Toxicological Characteristics

Eye Contact	Adverse symptoms may include irritation and redness.
Inhalation	Adverse symptoms may include respiratory tract irritation and coughing.
Skin Contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.

Potential Chronic Health Effects

General	Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teragenicity	No known significant effects or critical hazards.
Developmental Effects	No known significant effects or critical hazards.
Fertility Effects	No known significant effects or critical hazards.

12. Ecological Information

Persistence and Degradability	Not available.
Soil/water Partition Coefficient	Not available.
Other Adverse Effects	No known significant effects or critical hazards.

Product/Ingredient Name	Result	Species	Exposure
Sodium carbonate	Acute EC50 24200µg/l Fresh Water	Algae - Navicula seminulum	96 hours
	Acute LC50 176000µg/l Fresh Water	Crustaceans - Amphipoda	48 hours
	Acute LC50 265000µg/l Fresh Water	Daphnia - Daphnia magna	48 hours
	Acute LC50 300000µg/l Fresh Water	Fish - Lepomis macrochirus	96 hours

13. Disposal Considerations

Disposal

The generations of waste should be avoided or minimised wherever possible. Disposal of this product, solutions and any by-products should always comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. The material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out, Empty containers or liners may retain some

of the product residues. Avoid dispersal of spilled material and runoff and contact with the soil, waterways, drains and sewers.

Always dispose of in accordance with local, state, and federal regulations.

14. Transport Information

Always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of spillage or an accident.

15. Regulatory Information

Not determined In Australia

16. Other Information

SDS Creation Date	26/12/2019
Issue Number	001. This issue number replaces all previous issues.
Customer Service	1300 064 020
Australian Poisons Info Centre	13 11 26

No substances on the state hazardous substances list, for the states indicated, are used in the manufacture of the products on this Material Safety Data Sheet, with the exceptions indicated. While we have not specifically analysed these products, the raw materials used in their manufacture or for substances on various state hazardous substances list, to the best of our knowledge, the products on this Material Safety Data Sheet contain no such substances except for those specifically listed.

The product should not be used for purposes other than shown in Section 1 without first referring to the supplier and obtaining written instructions. As specific conditions of use of the product are outside of the suppliers' control, the user is responsible for ensuring that the requirements of the relevant legislation are complied with. The information in this Safety Data Sheet is based on the present knowledge and current national legislation. It provides guidance on health, safety, and environmental aspects of the product and should not be construed as a guarantee of technical performance or suitability for particular applications. This SDS will be revised and updated as requirements occur. Should further information and relevant advice be required, contact BioHub Solutions Pty Ltd.