



SAFETY DATA SHEET

CASCADE LICHEN & ALGAE REMOVER

ISSUED Date : 01/05/2021
ISSUED by: INTEGRA INDUSTRIES

CLASSIFIED AS HAZARDOUS

1. IDENTIFICATION

GHS Product Identifier

CASCADE LICHEN & ALGAE REMOVER

Product Code

C2033980L05, C2033800L20, C2033790L200

Company Name

Integra Industries

Address

21A Grosvenor St
Dunedin

Telephone/Fax Number

Ph: (03) 4556805

Emergency phone number

0800 243 622

Emergency Contact Address

Integra Industries
21A Grosvenor St
Dunedin

Recommended use of the chemical and restrictions on use

Disinfectant / algicide solution for removal of lichen and algae.

2. HAZARD IDENTIFICATION

GHS classification of the substance/mixture

Classified as Hazardous according to the Hazardous Substances (Minimum Degrees of Hazard) Regulations 2001, New Zealand.
Classified as Dangerous Goods for transport according to the New Zealand Standard NZS 5433:2012 Transport of Dangerous Goods on Land.

6.1D (Oral) - Substance that is acutely toxic

6.5A Substance that is a respiratory sensitiser

6.5B Substance that is a contact sensitiser

8.1A Substance that is corrosive to metals

8.2B Substance that is corrosive to dermal tissue

8.3A Substance that is corrosive to ocular tissue

9.1A Substance that is very ecotoxic in the aquatic environment

Signal Word (s)

DANGER

Hazard Statement (s)

H290 May be corrosive to metals.

H302 Harmful if swallowed.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.

H400 Very toxic to aquatic life.

Pictogram (s)

Corrosion, Health hazard, Environment



Precautionary statement – Prevention

P234 Keep only in original container.

P260 Do not breathe dust/fume/gas/mist/vapours/spray.

P261 Avoid breathing dust/fume/gas/mist/vapours/spray.

P264 Wash contaminated skin thoroughly after handling.

P270 Do not eat, drink or smoke when using this product.

P272 Contaminated work clothing should not be allowed out of the workplace.

P273 Avoid release to the environment.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P284 Wear respiratory protection.

Precautionary statement – Response

P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

P301+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.

P302+P352 IF ON SKIN: Wash with plenty of soap and water.

P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P304+P341 IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position 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/physician.

P330 Rinse mouth.

P333+P313 If skin irritation or rash occurs: Get medical advice/attention.

P342+P311 If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P363 Wash contaminated clothing before reuse.

P390 Absorb spillage to prevent material damage.

P391 Collect spillage.

Precautionary statement – Storage

P405 Store locked up.

P406 Store in corrosive resistant/ container with a resistant inner liner.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients

Name	CAS	Proportion
Benzyl C12- 14 alkyl dimethyl ammonium chloride	85409- 22- 9	30 - 60%
Water	7732- 18- 5	Remainder

4. FIRST-AID MEASURES

First Aid Measures

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)

New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)

New Zealand Emergency Services: 111

Inhalation

- Inhalation of vapours or aerosols (mists, fumes) may cause lung oedema.
- Corrosive substances may cause lung damage (e.g. lung oedema, fluid in the lungs).
- As this reaction may be delayed up to 24 hours after exposure, affected individuals need complete rest (preferably in semi-recumbent posture) and must be kept under medical observation even if no symptoms are (yet) manifested.
- Before any such manifestation, the administration of a spray containing a dexamethasone derivative or beclomethasone derivative may be considered.

Ingestion

- For advice, contact a Poisons Information Centre or a doctor at once.
- Urgent hospital treatment is likely to be needed.
- If swallowed do NOT induce vomiting.
- If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.

Skin

- Immediately flush body and clothes with large amounts of water, using safety shower if available.
- Quickly remove all contaminated clothing, including footwear.
- Wash skin and hair with running water. Continue flushing with water until advised to stop by the Poisons Information Centre.
- Transport to hospital, or doctor.

Eye contact

- Immediately hold eyelids apart and flush the eye continuously with running water.
- Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.
- Continue flushing until advised to stop by the Poisons Information Centre or a doctor, or for at least 15 minutes.
- Transport to hospital or doctor without delay.

First Aid Facilities

Eye wash facilities and safety shower should be available.

Advice to Doctor

1. For acute or short term repeated exposures to strong acids:

- Airway problems may arise from laryngeal edema and inhalation exposure. Treat with 100% oxygen initially.
- Respiratory distress may require cricothyroidotomy if endotracheal intubation is contraindicated by excessive swelling
- Intravenous lines should be established immediately in all cases where there is evidence of circulatory compromise.
- Strong acids produce a coagulation necrosis characterised by formation of a coagulum (eschar) as a result of the desiccating action of the acid on proteins in specific tissues.

2. For exposures to quaternary ammonium compounds;

- For ingestion of concentrated solutions (10% or higher): Swallow promptly a large quantity of milk, egg whites / gelatin solution. If not readily available, a slurry of activated charcoal may be useful. Avoid alcohol. Because of probable mucosal damage omit gastric lavage and emetic drugs.
- For dilute solutions (2% or less): If little or no emesis appears spontaneously, administer syrup of Ipecac or perform gastric lavage.
- If hypotension becomes severe, institute measures against circulatory shock.
- If respiration laboured, administer oxygen and support breathing mechanically. Oropharyngeal airway may be inserted in absence of gag reflex. Epiglottic or laryngeal edema may necessitate a tracheotomy.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

The product contains a substantial proportion of water, therefore there are no restrictions on the type of extinguishing media which may be used. Choice of extinguishing media should take into account surrounding areas.

Though the material is non-combustible, evaporation of water from the mixture, caused by the heat of nearby fire, may produce floating layers of combustible substances.

In such an event consider:

- foam.

Hazards from Combustion Products

FIRE/EXPLOSION HAZARD

The emulsion is not combustible under normal conditions. However, it will break down under fire conditions and the hydrocarbon component will burn.

- Non combustible.
- Not considered to be a significant fire risk.
- Acids may react with metals to produce hydrogen, a highly flammable and explosive gas.
- Heating may cause expansion or decomposition leading to violent rupture of containers., carbon dioxide (CO₂), hydrogen chloride,

phosgene, nitrogen oxides (NO_x), other pyrolysis products typical of burning organic material.

FIRE INCOMPATIBILITY

- None known.

Hazchem Code

2X

Decomposition Temperature

Not Available

Other Information

Personal Protective Equipment:

Gas tight chemical resistant suit.

6. ACCIDENTAL RELEASE MEASURES

Clean-up Methods - Small Spillages

MINOR SPILLS

- Drains for storage or use areas should have retention basins for pH adjustments and dilution of spills before discharge or disposal of material.
- Check regularly for spills and leaks.
- Clean up all spills immediately.
- Avoid breathing vapours and contact with skin and eyes.
- Control personal contact by using protective equipment.
- Contain and absorb spill with sand, earth, inert material or vermiculite.

Other Information

Personal Protective Equipment advice is contained in Section 8 of the MSDS.

7. HANDLING AND STORAGE

Precautions for Safe Handling

- DO NOT allow clothing wet with material to stay in contact with skin.
- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs.
- Use in a well-ventilated area.
- WARNING: To avoid violent reaction, ALWAYS add material to water and NEVER water to material.

Conditions for safe storage, including any incompatibilities

SUITABLE CONTAINER

- DO NOT use aluminium or galvanised containers.
- Check regularly for spills and leaks.
- Lined metal can, lined metal pail/ can.
- Plastic pail.
- Polyliner drum.
- Packing as recommended by manufacturer. For low viscosity materials
- Drums and jerricans must be of the non-removable head type.
- Where a can is to be used as an inner package, the can must have a screwed enclosure. <</>.

STORAGE REQUIREMENTS

- Store in original containers.
- Keep containers securely sealed.
- Store in a cool, dry, well-ventilated area.
- Store away from incompatible materials and foodstuff containers

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limit values

The following materials had no OELs on our records

- benzyl C12- 14 alkyldimethylammonium chloride: CAS:85409- 22- 9 CAS:85409- 23- 0
- water: CAS:7732- 18- 5

Appropriate Engineering Controls

General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances

Personal Protective Equipment

RESPIRATOR

Type A Filter of sufficient capacity

EYE

- Safety glasses with unperforated side shields may be used where continuous eye protection is desirable, as in laboratories; spectacles are not sufficient where complete eye protection is needed such as when handling bulk-quantities, where there is a danger of splashing, or if the material may be under pressure
- Chemical goggles whenever there is a danger of the material coming in contact with the eyes; goggles must be properly fitted
- Full face shield (20 cm, 8 in minimum) may be required for supplementary but never for primary protection of eyes; these afford face protection.
- Alternatively a gas mask may replace splash goggles and face shields.

HANDS/FEET

- Elbow length PVC gloves. Wear safety footwear.
- When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. NOTE:
- The material may produce skin sensitisation in predisposed individuals. Care must be taken, when removing gloves and other protective equipment, to avoid all possible skin contact.
- Contaminated leather items, such as shoes, belts and watch-bands should be removed and destroyed. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as:
 - frequency and duration of contact,
 - chemical resistance of glove material,
 - glove thickness and
 - dexterity.

OTHER

- Overalls.
- PVC Apron.
- PVC protective suit may be required if exposure severe.
- Eyewash unit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Form

Liquid

Appearance

Clear pale liquid

Colour

Clear

Decomposition Temperature

Not Available

Melting Point

Not Available

Boiling Point

Not Available

Solubility in Water

Miscible

Specific Gravity

0.98

pH

pH (1% solution) = 6.5- 8.5 (10 %)

pH (as supplied) = Not Available

Vapour Pressure

Not Available

Vapour Density (Air=1)

Not Available

Evaporation Rate

Not Available

Viscosity

Not available

Volatile Component

50-52

Flash Point

Not Applicable

Auto-Ignition Temperature

Not Applicable

Explosion Limit - Upper

Not Applicable

Explosion Limit - Lower

Not Applicable

Molecular Weight

Not Applicable

10. STABILITY AND REACTIVITY

Chemical Stability

CONDITIONS CONTRIBUTING TO INSTABILITY

- Contact with alkaline material liberates heat.
- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

Incompatible materials

For incompatible materials - refer to Section 7 - Handling and Storage.

11. TOXICOLOGICAL INFORMATION

Ingestion

- The material can produce chemical burns within the oral cavity and gastrointestinal tract following ingestion.
- The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating

Skin

The material can produce chemical burns following direct contact with the skin.

Eye

- When applied to the eye(s) of animals, the material produces severe ocular lesions which are present twenty-four hours or more after instillation.
- Direct eye contact with acid corrosives may produce pain, lachrymation, photophobia and burns. Mild burns of the epithelia generally recover rapidly and completely.
- Solutions of many cationic surfactants (as low as 0.1% strength) produce significant irritation of the eyes. Concentrations exceeding 10% may produce severe burns with permanent opacity and vascularisation.

Chronic Effects

Repeated or prolonged exposure to acids may result in the erosion of teeth, inflammatory and ulcerative changes in the mouth and necrosis (rarely)

of the jaw. Bronchial irritation, with cough, and frequent attacks of bronchial pneumonia may ensue.

Limited evidence suggests that repeated or long-term occupational exposure may produce cumulative health effects involving organs or biochemical systems.

Limited evidence shows that inhalation of the material is capable of inducing a sensitisation reaction in a significant number of individuals at a greater frequency than would be expected from the response of a normal population.

Pulmonary sensitisation, resulting in hyperactive airway dysfunction and pulmonary allergy may be accompanied by fatigue, malaise and aching. There exists limited evidence that shows that skin contact with the material is capable either of inducing a sensitisation reaction in a significant number of individuals, and/or of producing positive response in experimental animals.

Prolonged or repeated skin contact may cause degreasing with drying, cracking and dermatitis following.

Respiratory sensitisation may result in allergic/asthma like responses; from coughing and minor breathing difficulties to bronchitis with wheezing, gasping.

Other Information

TOXICITY AND IRRITATION

- The material may produce moderate eye irritation leading to inflammation. Repeated or prolonged exposure to irritants may produce conjunctivitis. Asthma-like symptoms may continue for months or even years after exposure to the material ceases. This

may be due to a non-allergenic condition known as reactive airways dysfunction syndrome (RADS) which can occur following exposure to high levels of highly irritating compound.

The material may produce respiratory tract irritation. Symptoms of pulmonary irritation may include coughing, wheezing, laryngitis, shortness of

breath, headache, nausea, and a burning sensation.

Unlike most organs, the lung can respond to a chemical insult or a chemical agent, by first removing or neutralising the irritant and then repairing the damage (inflammation of the lungs may be a consequence).

The repair process (which initially developed to protect mammalian lungs from foreign matter and antigens) may, however, cause further damage to the lungs (fibrosis for example) when activated by hazardous chemicals.

The material may produce severe skin irritation after prolonged or repeated exposure, and may produce a contact dermatitis (nonallergic). This form of dermatitis is often characterised by skin redness (erythema) thickening of the epidermis.</>.

For alkyldimethylbenzylammonium chlorides (ADMBAC):

Alkyldimethylbenzylammonium chlorides (ADMBAC) are included in Annex 1 of list of dangerous substances of Council Directive 67/548/EEC with the following classification: C8-18 ADMBAC are classified as Harmful (Xn) with the risk phrases R21/22 (Harmful in contact with skin and if swallowed) and Corrosive (C) with R34 (Causes burns) and (N) with R50 (Very toxic to aquatic organisms).

Acute toxicity: Absorption of these alkyldimethylbenzylammonium (ADMBAC) cationic surfactants through the skin is anticipated to be low.

The relationship between alkyl chain length and the acute toxicity of various ADMBAC homologues (C8 to C19) has been studied in mice.

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic organisms.

Avoid release to the environment.

This material and its container must be disposed of as hazardous waste.

Persistence and degradability

Low

Mobility

High

Bioaccumulative Potential

Low

13. DISPOSAL CONSIDERATIONS

Waste Disposal

- Recycle where possible

Otherwise ensure that:

- licenced contractors dispose of the product and its container.
- disposal occurs at a licenced facility.

14. TRANSPORT INFORMATION

U.N. Number

1760

UN proper shipping name

CORROSIVE LIQUID, N.O.S.

Transport hazard

class(es) 8

Sub.Risk

None

Packing Group

II

Hazchem Code

2X

IERG Number

37

UN Number (Sea Transport)

1760

UN Number (Road Transport)

1760

UN Number (Air Transport, ICAO)

1760

IATA/ICAO Hazard Class

8

IATA/ICAO Packing Group

II

IATA/ICAO Sub Risk

None

LIMITED QUANTITY - Max Net Quantity/Pkge

1L

IMDG UN No

1760

IMDG Hazard Class

8

IMDG Sub. Risk

None

IMDG Pack. Group

II

IMDG Subsidiary Risk

None

IMDG Marine pollutant

No

IMDG EMS

F- A , S- B

15. REGULATORY INFORMATION

National and or International Regulatory Information

This substance should be managed in accordance with the requirements specified in the Cleaning Products (Corrosive) Group Standard 2006 , HSNO Approval Number HSR002526.

Regulations for ingredients:

Benzyl C12-14 alkyltrimethylammonium chloride (CAS: 85409-22-9,85409-23-0) is found on the following regulatory lists;

"New Zealand Inventory of Chemicals (NZIoC)"

Water (CAS: 7732-18-5) is found on the following regulatory lists;

"IMO IBC Code Chapter 18: List of products to which the Code does not apply", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals"

No data for Cascade LICHEN & Algae Remover (CW: 21-5349)

HSNO Approval Number

HSR002526

Other Information

Specific advice on controls required for materials used in New Zealand can be found at <http://www.epa.govt.nz/hazardous-substances/approvals/Pages/default.aspx>.

16. OTHER INFORMATION

Date of preparation or last revision of SDS

27/04/2017

Technical Contact Numbers

24 Hour Emergency Contact: 0800 CHEMCALL (0800 243 622)

New Zealand Poisons Information Centre: 0800 POISON (0800 764 766)

New Zealand Emergency Services: 111

Other Information

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings.

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Integra Industries cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material. If clarification or further information is needed, the user should contact their Integra Industries representative or Integra Industries at the contact details on page 1.

Integra Industries responsibility for the material as sold is subject to the terms and conditions of sale, a copy of which is available upon request.

END OF SDS

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