

SAFETY DATA SHEET



1 IDENTIFICATION OF THE SUBSTANCE AND SUPPLIER

Product name: SUPER STRENGTH MOSS KILL

Recommended uses: General purpose moss kill super concentrate

Supplier: Impireacht Chemicals Limited, 0508987363, www.impireacht.co.nz

In emergency dial 111 then ask for Fire, Ambulance or Police as required.

In case of poisoning phone National Poisons Dunedin 0800 764 766

Call Ecochem 0800 249 224 if required in emergencies

2 HAZARDS IDENTIFICATION



CORROSIVE



CHRONIC TOXIC



TOXIC



ECOTOXIC

DANGER

KEEP OUT OF REACH OF CHILDREN

Read Label before Use and Read Safety Data Sheet before Use
HSNO Classification 6.1D, 6.5A, 6.5B, 6.9B, 8.2B, 8.3A, 9.1A, 9.3B

Warning: Harmful if swallowed. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause damage to skin and eyes through prolonged or repeated exposure by liquid contact, and is toxic by ingestion. Causes severe skin burns and eye damage. Causes serious eye damage. Very toxic to aquatic life with long lasting effects. Harmful to terrestrial vertebrates.

Precautions: Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Avoid breathing spray. In case of inadequate ventilation wear canister

type respiratory protection with organic mist cartridges. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection, face protection. Do not breathe mist or spray. Avoid release to the environment. Collect spillage.

3 COMPOSITION AND INFORMATION ON INGREDIENTS

Components	CAS Number	Proportion
Benzalkonium chloride	8001-54-5	50% approx

Synonyms: Benzalkonium chloride, N-alkyl (C12-14) dimethyl benzyl ammonium chloride, alkylbenzyl dimethyl ammonium chloride, N-Alkyl(C14,50%; C12,40%; C16,10%)-N,N-dimethyl-N-benzylammonium chloride

Plus water.

4 FIRST AID MEASURES

If medical advice is needed, have product container or label at hand.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Give 3-4 glasses of milk or if unavailable, give water. Contact National Poisons Dunedin 0800 764 766 or doctor.

INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms phone National Poisons Dunedin 0800 764 766 or doctor.

IF ON SKIN: Wash with plenty of water. If skin irritation or rash occurs get medical attention. Wash contaminated clothing before reuse. Get medical attention if you feel unwell. If skin irritation occurs get medical attention.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If medical advice is needed, have product container or label at hand. Immediately phone National Poisons Dunedin 0800 764 766 or doctor. Call ambulance for serious eye accidents. If eye irritation persists get medical attention.

SYMPTOMS AND EFFECTS, ACUTE AND DELAYED, FROM EXPOSURE

Direct skin or eye contact may produce severe irritation and/or chemical burns with possible irreversible damage.

Ingestion can cause immediate burning pain in the mouth, throat and abdomen; severe swelling of the larynx. Ingestion can cause skeletal muscle paralysis affecting the ability to breathe; circulatory shock; and/or convulsions. May be fatal if ingested.

Inhalation: Mists of product may cause severe irritation of mucous membranes.

5 FIRE FIGHTING MEASURES

Precautions for fire fighters and protective clothing requirements: wear self-contained breathing apparatus and protective clothing. Cool fire-exposed containers with water spray.

The product is a water based organic solution and is not flammable. Any extinguishing media may be used. Cool fire-exposed containers with water spray.

Fire and explosion hazards: not explosive but hazardous products of combustion may include toxic organic vapours, amines, oxides of carbon and nitrogen & hydrogen chloride.

6 ACCIDENTAL RELEASE MEASURES

Spills: corrosive material - wear appropriate protective equipment and respirator where mists or vapours of unknown concentrations may be generated.

Large amounts: do not allow the product to enter drains, sewers or waterways. Remove leaking containers to a detached area. Bund spill area and recover – consider recycling. Bund or absorb spilled product with inert material (e.g. sand, earth, lime etc.) to prevent release to storm water or natural waterways or soil. Send waste to an approved waste facility or treat by dilution then flush down sewer. Contamination of product may change waste management options.

Small amounts: wash away with plenty of water to sewer. Floors may become slippery. NB. Vigorous flushing may generate copious foam.

7 HANDLING AND STORAGE

Precautions for safe handling: avoid eye contact. Wear chemical type goggles or safety glasses. Wear PVC gloves and protective clothing.

Conditions for safe storage, including any incompatibilities: Store locked up. Do not contaminate drinking water, food or feed by storage or disposal. Keep containers closed when not in use. Store separate from oxidisers.

8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure limits: none established.

ENGINEERING CONTROLS

In processes where airborne particulates mists may be generated, proper ventilation must be provided.

RESPIRATORY PROTECTION

In processes where dusts, airborne particulates, mists or vapours may be generated, a NIOSH/MSHA jointly approved respirator is advised in the absence of proper environmental engineering controls.

PROTECTIVE GLOVES

Rubber or neoprene, when needed, to prevent skin contact.

EYE PROTECTION

Wear chemical splash goggles where there is a potential for eye contact. Use safety glasses with side shields where there is no potential for contact.

OTHER PROTECTIVE EQUIPMENT

Eye wash; safety shower; protective clothing (long sleeves, coveralls or other, as appropriate), when needed, to prevent skin contact.

9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Water-white liquid with faint almond smell.
Boiling point:	100 C
Flash point:	Not flammable
Solubility in water:	Completely miscible
pH:	7.5 to 8.5

10 STABILITY AND REACTIVITY

Stability: Stable under normal operating conditions.

Materials to Avoid: Avoid contact with strong oxidising and reducing agents.

Hazardous Decomposition Products: toxic organic vapours/fumes, amines, CO, CO₂, nitrogen oxides.

Dangerous Reactions: None

11 TOXICOLOGICAL INFORMATION

Swallowed: Toxic if swallowed. Irritating to mouth, throat and gastric tissue.

Eye: Severe Irritant. Very sticky, hard to rinse out completely.

Skin: Corrosive. May cause skin sensitisation.

Inhaled: Irritating if inhaled. May cause respiratory sensitisation.

TOXICITY

The toxicity information provided is for closely related material and for the active component of this material, as appropriate.

ACUTE For Alkylbenzyltrimethylammonium Chloride

Acute oral toxicity: LD₅₀ oral (rat) 680 -1050 mg/kg

Acute dermal toxicity: LD₅₀ (rabbit) 3418 mg/kg

Photoallergenicity/sensitization (guinea pig – Buehler): Not photoallergenic or a contact sensitiser.

GENOTOXICITY/MUTAGENICITY for Alkylbenzyltrimethylammonium Chloride

Unscheduled DNA synthesis (in vitro – rat hepatocyte's): Not mutagenic with or without metabolic activation.

HGPRT (in vitro – CHO cells): Not mutagenic with or without metabolic activation.

REPRODUCTIVE/DEVELOPMENTAL For Alkylbenzyltrimethylammonium Chloride

Developmental (rat – oral): NOAEL – 10 mg/kg/day for both maternal and neonatal. No evidence of developmental toxicity effects was observed at exposure doses ranging from 10-100 mg/kg/day administered from day 6 through 18 of gestation. Clear signs of maternal toxicity were observed at the high-dose level of 100 mg/kg/day.

Developmental (rabbit - oral): NOAEL – 3 mg/kg/day for both maternal and neonatal. No evidence of developmental toxicity effects was observed at exposure doses ranging from 1 to 9 mg/kg/day administered from day 6 through 18 of gestation. Clear signs of maternal toxicity were observed at the high-dose level OF 8 mg/kg/day.

Reproductive/developmental (rat – two generation feeding): NOAEL – 1000 ppm.

Neonatal and maternal adverse effects were observed in animals dosed at 2000 ppm.

SUBCHRONIC For Alkylbenzyltrimethylammonium Chloride

Oral toxicity (dog - 8 week - feeding): No adverse systemic or target organ effects were noted at dosage levels ranging from 400 to 1600 ppm in the diet. Slightly reduced weight gain and cholesterol values were observed in the 1200 and 1600 ppm exposure dose groups.

Oral toxicity (rat – 90 day - feeding): No systemic or target organ effects were observed at a dosage level of approximately 500 ppm in the diet. Adverse effects were noted at the higher dosage levels of 1000 and 4000 ppm.

Dermal toxicity (rat – 90 day): No systemic toxicity effects were noted in any of the exposure groups; however, slight irritation was observed in all treatment groups up to 20 mg/kg/day.

CHRONIC For Alkylbenzyltrimethylammonium Chloride

Oral toxicity (dog – 1 year - feeding): NOAEL – 400 ppm. Clear treatment related effects were observed in the high dosage level group, 1200 ppm. No specific target organ toxicity was observed and treatment had no effect on survival.

Oral toxicity/oncogenicity (rat – 2 year): NOAEL - 1000 ppm. Treatment related effects were noted in high-dosage level group, 2000 ppm. Survival and tumour incidences, as compared with controls, were not affected.

12 ECOLOGICAL INFORMATION

Ecotoxicity for Alkylbenzyltrimethylammonium Chloride

LC50 (bluegill sunfish – 96 hour, static): 0.52 mg/l

LC50 (rainbow trout – 96 hour, static): 0.93 mg/l

LC50 (sheeps head minnow – 96 hour, static): 0.86 mg/l

LC50 (mysid shrimp – 96 hour, static): 0.092 mg/l

EC50 (Daphnia magna – 48 hour, static): 0.058 mg/l

Persistence and Degradability: biodegradable in concentrations below 20 ppm. Certain organisms such as Pseudomonas can grow in 2% alkyl-dimethyl-benzylammonium chloride solution.

Mobility: SUPER STRENGTH MOSS KILL is a mobile liquid with good wetting ability and very low volatility. It will eventually get biodegraded in water or soil as it diluted.

13 DISPOSAL CONSIDERATIONS

Send waste to an approved waste facility or treat by dilution until pH is less than 9 then flush down sewer. Contamination of product may change waste management options. Rinse the plastic packaging three times inside and out until no foam is observed then remove the label. The pack may then be re-used or recycled, and the label disposed of as solid waste.

14 TRANSPORT INFORMATION

Proper Shipping Name: DISINFECTANT, LIQUID CORROSIVE, NOS.
(BENZALKONIUM CHLORIDE)

UN Number: 1903

Dangerous Goods Class: 8

Packing group: III

Hazchem Code: 4W

15 REGULATORY INFORMATION

SUPER STRENGTH MOSS KILL is assigned to Cleaning Products (Corrosive) Group Standard 2017

The HSNO Approval Number for this Group Standard is HSR002526

The following hazard classifications have been assigned to SUPER STRENGTH MOSS KILL:

6.1D Acutely Toxic
6.5A Respiratory Sensitisers
6.5B Contact Sensitisers
6.9B Harmful to Human Target Organs or Systems
8.2B Corrosive to Dermal Tissue
8.3A Corrosive to Ocular Tissue
9.1A Substances that are acutely ecotoxic in the aquatic environment
9.3B Substances that are toxic to terrestrial vertebrates

16 OTHER INFORMATION

Prepared on 19th August 2020

Abbreviations

ACGIH The American Conference of Governmental Industrial Hygienists, Inc.
AIHA American Industrial Hygiene Association
AS/NZS Australian/New Zealand Standard
C Celsius, a measure of temperature
CAS Chemical Abstract Services

EPA	Is New Zealand's Environmental Protection Authority
GHS	Globally Harmonised System
LEL	Lower Explosion Limit
LC50	Is the concentration which kills half of the test animals under controlled conditions. This value applies to vapours, dusts, mists and gases.
LCLo	Is the lowest concentration of a material in air reported to have caused the death of animals or humans. The exposure may be acute or chronic. This is also called the lowest concentration causing death, lowest detected lethal concentration, and lethal concentration low. LCLo is closely related to the LC50 value which is the concentration which kills half of the test animals under controlled conditions. This value applies to vapours, dusts, mists and gases. Solids and liquids use the closely related LDLo value for routes other than inhalation.
LD50	Is the dose which kills half of the test animals by ingestion.
LDLo	Is the lowest dose of a material in reported to have caused the death of animals or humans. The exposure may be acute or chronic. This is also called the lowest dose causing death, lowest detected lethal concentration, and lethal dose low.
PEL	Permissible Exposure Limit is the maximum amount or concentration of a chemical that a worker may be exposed to under OSHA regulations.
SDS	Safety Data Sheet, the new term for MSDS or Material Safety Data Sheet.
STEL	A Short Term Exposure Limit (is defined by ACGIH as the concentration to which workers can be exposed continuously for a short period of time without suffering from: irritation, chronic or irreversible tissue damage narcosis of sufficient degree to increase the likelihood of accidental injury, impair self-rescue or materially reduce work efficiency.
TWA	Time-Weighted Average
UEL	Upper Explosion Limit
UN	United Nations
WEEL	Workplace Environmental Exposure Levels

End of SDS