



# SAFETY DATA SHEET

According to  
HSNO Hazardous Substances (Safety Data Sheets) Notice 2017

## Section 1: Identification of the Substance/Mixture and of the Supplier

Product: **Moss Kill**  
Product Use: Moss, Mould & Lichen Remover  
Restriction of Use: Refer to Section 15

Company Details: **Marketing Chemicals Ltd**  
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Emergency No: **+64 274 736008(24 hours)**  
**0800 764 766 (National Poison Centre)**

Date of SDS Preparation: 6 September 2019

## Section 2: Hazard Identification

This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval No: **Cleaning Products (Corrosive) - HSR0002526**

### Pictograms:



Corrosive

Signal Word: **DANGER**

HSNO Classes	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Acute Tox. 4
6.1D (dermal)	H312	Harmful in contact with skin.	Acute Tox. 5
8.2B	H314	Causes severe skin burns and eye damage.	Skin Corr. 1B
8.3A	H318	Causes serious eye damage.	Eye Corr. 1
9.1A	H410	Very toxic to aquatic life with long lasting effects.	Aquatic Acute 1

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P260	Do not breathe fumes or vapours.
P264	Wash hands thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection*.

Response code	Response Statement
P101	If medical advice is needed, have product container or label at hand.

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Prepared by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 www.techcomp.co.nz

P310	Immediately call a POISON CENTER or doctor/physician.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P330	Rinse mouth.
P363	Wash contaminated clothing before reuse.
P391	Collect spillage.
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.
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 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.

**Storage Code**            **Storage Statement**  
P405                        Store locked up.

**Disposal Code**         **Disposal Statement**  
P501                        Refer to Section 13.

### Section 3: Composition/Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Quaternary Ammonium Chloride	25.0 – 60.0	63449-41-2
Non hazardous materials	To Bal	

### Section 4: First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.
If on Skin	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. Immediately call a POISON CENTER or doctor/physician.
If Swallowed	Rinse mouth. 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. Observe the patient carefully. Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious. Immediately call a POISON CENTER or doctor/physician if you feel unwell.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

#### Most important symptoms and effects, both acute and delayed

Symptoms:

<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Not applicable
<b>Skin</b>	May be harmful if in contact with skin. Causes skin burns.
<b>Eyes</b>	Causes serious eye damage.
<b>Chronic</b>	Not applicable.

### Section 5: Fire Fighting Measures

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<b>Hazard Type</b>	Non Flammable.
<b>Hazards from products</b>	None known.
<b>Suitable Extinguishing media</b>	All
<b>Precautions for firefighters and special protective clothing</b>	Wear full protective gear.
<b>HAZCHEM CODE</b>	<b>2X</b>

## Section 6: Accidental Release Measures

Wear protective clothing as detailed in Section 8. Evacuate all unnecessary personnel. Stop the leak, if possible.

Do not allow to enter waterways.

Stop the leak, if possible. Ventilate the space involved. Contain, vacuum up, place in non-sparking container for disposal. Construct a dike to prevent spreading. Collect run-off and transfer to drums or tanks for later disposal. Dispose of according to Local Regulations.

## Section 7: Handling and Storage

### Handling:

- Read label before use.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Avoid release to the environment.
- Wear protective clothing.

### Storage:

- Store locked up in the original container.
- Keep out of reach of children
- Protect from physical damage.
- Clean up all spills immediately to prevent secondary accidents.
- Store away from incompatible materials listed in Section 10.

## Section 8: Exposure Controls / Personal Protection

### WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

No ingredients have exposure limits

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2017 9TH EDITION.

### Personal Protection Equipment



<b>Engineering Controls:</b>	General (mechanical) room ventilation is considered satisfactory in enclosed spaces.
<b>Eye / Face Protection:</b>	Safety Glasses/Full face masks.
<b>Body Protection:</b>	PVC-coated gloves. Avoid skin contact. If skin contact or contamination of clothing is likely, protective clothing should be worn.
<b>Respiratory Protection:</b>	Avoid exposure to spray mist. Suitable respiratory protection should be worn.

## Section 9: Physical and Chemical Properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Clear
<b>Odour</b>	Not available
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Boiling Point</b>	100°C
<b>Melting Point</b>	Not available
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Non Flammable
<b>Upper and Lower Explosive Limits</b>	Not available
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Specific Gravity</b>	1.00
<b>Solubility in Water</b>	Completely
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	Not available
<b>Decomposition Temperature</b>	Not available
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not applicable
<b>Evaporation Rate</b>	Not available

## Section 10: Stability and Reactivity

<b>Stability of the Substance:</b>	Stable under normal storage and use conditions.
<b>Conditions to avoid:</b>	Heat
<b>Materials to avoid:</b>	Oxidising agents
<b>Hazardous Decomposition Products:</b>	None known.
<b>Conditions Contributing to Hazardous Polymerization</b>	Not known.

## Section 11: Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Harmful if swallowed. ENDPOINT: LD50 ;VALUE: 150 mg/kg
<b>Dermal</b>	Harmful in contact with skin. SPECIES: Rat ;ENDPOINT: LD50;VALUE: 1420 mg/kg
<b>Inhalation</b>	Respiratory sensitizers

	<b>SPECIES:</b> RESULT: In acute cases pulmonary oedema resulting from aspiration, dyspnea and cyanosis due to paralysis of the respiratory muscles, bronchoconstriction, cough can occur.
<b>Eye</b>	Causes serious damage to eyes. RESULT: Eye exposure may result in mild discomfort (0.1% solution) to very serious corneal damage (10% solution) depending on the agent and the concentration. High concentrations of benzalkonium chloride can cause ocular toxicity in human eyes.
<b>Skin</b>	Causes severe skin burns.

**Chronic Effects:**

<b>Carcinogenicity</b>	Not applicable.
<b>Reproductive Toxicity</b>	Not applicable.
<b>Germ Cell Mutagenicity</b>	Not applicable.
<b>Aspiration</b>	Not applicable.
<b>STOT/SE</b>	Not applicable.
<b>STOT/RE</b>	Not applicable.

## Section 12: Ecotoxicological Information

**HSNO Classes:** 9.1A = Very toxic to aquatic life with long lasting effects.

<b>Persistence and degradability</b>	No data available
<b>Bioaccumulation</b>	No data available
<b>Mobility in Soil</b>	No data available
<b>Other adverse effects</b>	No data available

**Individual component information (Please refer to [www.epa.govt.co.nz](http://www.epa.govt.co.nz) for full details):**

**Quaternary Ammonium Compounds (Cas No 63449-41-2):**

Route	Species	Duration	Value LC50/EC50
Algae	Scenedesmus pannonicus (Green algae)	72 hr (static)	0.08 mg/L
Acute aquatic, Crustacean	Ceriodaphnia dubia Water flea	48 hr	40.38 mg/L
Bioaccumulative	No		
Rapidly Degradable	Yes		

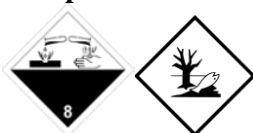
## Section 13: Disposal Considerations

**Disposal Method:** Empty packaging completely prior to disposal. Do not pierce or burn, even after use. Place any recovered product into an appropriate waste container for disposal through appropriate waste company or specialized landfill in accordance with local regulations.

**Precautions:** Ensure waste container containing recovered product or contaminated spill media is labelled "Hazardous Waste – Corrosive". Do not allow to enter waterways if possible.

## Section 14: Transport Information

**This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2012**



### Road, Rail, Sea and Air Transport

<b>UN No</b>	3266
<b>Class - Primary</b>	8
<b>Packing Group</b>	II
<b>Proper Shipping Name</b>	CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S.
<b>Marine Pollutant</b>	Yes
<b>Special Provisions</b>	If the product's individual container is below 1L, it can be transported as a non-DG as long as the product packaging is still labelled as per DG requirements and the driver is given safety information in accordance with Chapter 3.4 of the UNRTDG.
<b>Hazchem Code</b>	2X

## Section 15: Regulatory Information

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2017

EPA Approval Code: Cleaning Product(corrosive) - HSR002526

HSNO Classification: 6.1D(oral), 6.1E(dermal), 8.2B, 8.3A, 9.1A

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	100L (9.1A)
Emergency Response Plan	100L (9.1A)
Secondary Containment	100L (9.1A)
Restriction of Use	None

## Section 16: Other Information

### Glossary

EC <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

### References:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

### Disclaimer

Marketing Chemicals Ltd has taken care in compiling this information. No liability is accepted directly or indirectly from its application as conditions of use are outside the Company's control. End users are obliged to conform to relevant Local Government regulations.

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