

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

MOSS MOULD & LICHEN KILLER A quaternary based cleaner for outside use. Active against most common forms of bacteria, Fungi, moulds, algae, & lichen.

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After hours: National Poisons & Hazardous Chemical Information Centre: 0800-764-766 (0800-POISON)

SECTION 2: HAZARD IDENTIFICATION:

This material is hazardous according to the criteria of the Health & Safety at work (Hazardous substances) Regulations 2017.
This material is hazardous according to the EPA Minimum Degrees of hazardous and Classification Notices 2017.

- | | |
|---|---|
| 6.1D Harmful if swallowed or skin contact occurs. | 8.2C Causes skin burn. |
| 6.5A May cause allergy or asthma symptoms or breathing difficulties if inhaled. | 8.3A Causes serious eye damage. |
| 6.5B May cause allergic skin reaction. | 9.1B Toxic to aquatic life with long lasting effects. |
| 6.9B May cause damage to body organs. | 9.3C Harmful to terrestrial vertebrates. |

Cleaning Products Corrosive Group Standard:

HSR No: 00002526

SECTION 3: COMPOSITION & INFORMATION ON INGREDIENTS:

Benzalkonium chloride (CAS# 8001-54-5)	100g/l
Mineral buffer	< 2 %
Water	to 100 %

SECTION 4: FIRST AID MEASURES:

- Contact with eyes:** Rinse eyes with running water holding back eyelids for 15 minutes. If irritation persists, seek immediate medical advice with transport to hospital or emergency clinic possible.
- Contact with skin:** Wash affected area with copious volumes of water (use emergency shower). If clothing is contaminated, remove and wash affected skin area. If irritation or swelling occurs, seek medical advice.
- After inhalation:** A non-volatile product in normal use. But if subject to vaporisation remove the patient from exposure to a comfortable location and seek medical advice.
- After ingestion:** Do Not Induce Vomiting. Administer 2 glasses of water or milk and seek immediate medical advice. Transport to hospital or emergency clinic without delay.
- Advice to Doctor:** Treat patient for acute exposure to material with corrosive and toxic effects. Have this SDS or a product label on hand.

SECTION 5: FIRE FIGHTING MEASURES:

This product neither flammable nor combustible.
Containers subject to the heat of a prolonged fire may explode or erupt scattering contents. Where possible remove drums and containers from the path of a fire, or cool with water spray.
Firefighters must wear SCBA and chemical resistant suits.
Firefighters may use fog (preferred) or water spray (not jet), foam, CO₂, or dry chemical powder to extinguish a fire in the vicinity.

SECTION 6: ACCIDENTAL RELEASE MEASURES:

Spills on the floor will produce a slippery surface. Signage preventing foot traffic should be erected where appropriate. Minor spills (up to 20 litres) should be diluted with water, neutralised where possible and removed with mops, absorbed with Mineral Sponge, dry rags, paper, sand or soil. It may be possible to drain small neutralised spills to wastewater where this permitted. Large spills (drums and IBCs) should be contained from local drainage with any suitable bund or barrier. If possible dilute the spill without increasing the possibility of non-containment, and clean up with absorbent material such as Mineral Sponge, dry earth, sand, or soil.
Where a liquid suction cleaning machine is available, it should be used only after neutralising the spill.

SECTION 7: HANDLING AND STORAGE:

Store drums and carboys with secure closures in sites where they can be kept cool and dry, and away from heat sources. Handle to prevent damage to containers. Should packaging be damaged, repack into clean and dry containers of the same type and mark the product name carefully on the container.
Always replace lids and caps after using the product. Return all packages to safe storage as soon as possible after use.

Hazard statement(s)

May damage the unborn child.
 May be corrosive to metals.
 Causes severe skin burns and eye damage.
 Causes serious eye damage.

Precautionary statement(s): Prevention

Do not breathe dust/fume/gas/mist/vapours/spray.
 Wash hands thoroughly after handling.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Keep only in original container.

Precautionary statement(s): Response

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Precautionary statement(s): Storage

Store in corrosive resistant container or with a resistant inner liner.
 Store locked up.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Substances

See section below for composition of Mixtures

Mixtures

CAS No	%[weight]	Name
N/A	0-30	non-hazardous surfactants
N/A	0-10	alkaline salts
111-76-2	0-10	ethylene glycol monobutyl ether
6834-92-0	0-5	sodium metasilicate, anhydrous
7732-18-5	>60	water

SECTION 4: FIRST AID MEASURES

NZ Poisons Centre 0800 POISON (0800 764 766) | NZ Emergency Services: 111

Description of first aid measures

Eye Contact

If this product comes in contact with the eyes:

- 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.
- Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

Skin Contact

If skin or hair contact occurs:

- 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.

Inhalation

- If fumes or combustion products are inhaled remove from contaminated area. Lay patient down. Keep warm and rested.
- Prosthesis such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.
- Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.

Ingestion

- Transport to hospital, or doctor, without delay.
- 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.
- Observe the patient carefully.
- Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.
- Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.
- Transport to hospital or doctor without delay.

Indication of any immediate medical attention and special treatment needed

Treat symptomatically. For acute or short term repeated exposures to highly alkaline materials:

- Respiratory stress is uncommon but present occasionally because of soft tissue edema.
- Unless endotracheal intubation can be accomplished under direct vision, cricothyroidotomy or tracheotomy may be necessary.
- Oxygen is given as indicated.
- The presence of shock suggests perforation and mandates an intravenous line and fluid administration.

SECTION 5: FIRE-FIGHTING MEASURES

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 heat of nearby fire, may produce floating layers of combustible substances. In such an event consider, foam.

Fire/Explosion Hazard

- The material is not readily combustible under normal conditions.
 - However, it will breakdown under fire conditions and the organic component may burn.
 - Not considered to be a significant fire risk
 - Heat may cause expansion or decomposition with violent rupture of containers.
- Decomposes on heating and produces toxic fumes of carbon dioxide (CO₂), other pyrolysis products typical of burning organic material.
- May emit corrosive fumes. May emit poisonous fumes.

Fire Incompatibility

None known.

Personal Protection

Glasses: Full face shield
 Gloves: PVC chemical resistant type
 Respirator: Type A-P filter of sufficient capacity.

SECTION 6: ACCIDENTAL RELEASE MEASURES

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.

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

SECTION 7: HANDLING AND STORAGE

Procedure for handling

- Avoid all personal contact, including inhalation.
- Wear protective clothing when risk of exposure occurs
- Use in a well ventilated area
- Avoid contact with moisture
- DO NOT allow clothing wet with material to stay in contact with skin.

Suitable Container

- Lined metal can/pail
- Plastic pail
- Polyliner drum
- Packing as recommended by manufacturer
- 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.
- DO NOT store near acids or oxidising agents.
- No smoking, naked lights, heat or ignition sources.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Controls

Source	Material	TWA ppm	TWA mg/m3	Notes
New Zealand Workplace Exposure Standards (WES)	Ethylene glycol monobutyl ether (2-Butoxyethanol)	25	121	Skin

The following materials have no OELs on our records.

- Sodium metasilicate, anhydrous CAS: 6834-92-0
- Water CAS: 7732-18-5

Personal Protection

Respirator	<ul style="list-style-type: none"> Type A-P filter of sufficient capacity.
Eye	<ul style="list-style-type: none"> Chemical goggles. Full face shield may be required for supplementary but never for primary protection of eyes Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lens or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of chemicals in use and an account of injury experience. Medical and first-aid personnel should be trained in their removal and suitable equipment should be readily available. In the event of chemical exposure, begin eye irrigation immediately and remove contact lens as soon as practicable. Lens should be removed at the first signs of eye redness or irritation - lens should be removed in a clean environment only after workers have washed hands thoroughly. [CDC NIOSH Current Intelligence Bulletin 59].
Hands / Feet	<ul style="list-style-type: none"> Wear chemical protective gloves, eg. PVC. Wear safety footwear or safety gumboots, eg. Rubber. When handling corrosive liquids, wear trousers or overalls outside of boots, to avoid spills entering boots. Suitability and durability of glove type is dependent on usage. Important factors in the selection of gloves include: such as: <ul style="list-style-type: none"> Frequency and duration of contact, chemical resistance of glove material, Glove thickness and Dexterity.
Other	<ul style="list-style-type: none"> Overalls. PVC Apron. PVC protective suit may be required if exposure severe. Eyewash unit.
Engineering Controls	<ul style="list-style-type: none"> General exhaust is adequate under normal operating conditions. Local exhaust ventilation may be required in special circumstances.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES
APPEARANCE

Red mobile highly alkaline liquid; mixes with water.

PHYSICAL PROPERTIES

Liquid.

Mixes with water.

Corrosive. Alkaline.

State	Liquid	Molecular Weight	Not Applicable
Melting Range (°C)	Not Available	Viscosity	Not Available
Boiling Range (°C)	~100	Solubility in water (g/L)	Miscible
Flash Point (°C)	Not Applicable	pH (1% solution)	Not Available
Decomposition Temp (°C)	Not Available	pH (as supplied)	Not Available
Autoignition Temp (°C)	Not Applicable	Vapour Pressure (kPa)	Not Available
Upper Explosive Limit (%)	Not Applicable	Specific Gravity (water=1)	1.08
Lower Explosive Limit (%)	Not Applicable	Relative Vapour Density (air=1)	Not Available
Volatile Component (%vol)	Not Available	Evaporation Rate	Not Available
Material		Value	
ETHYLENE GLYCOL MONOBUTYL ETHER:			
log Kow		0.76- 0.83	

SECTION 10: STABILITY AND REACTIVITY

CONDITIONS CONTRIBUTING TO INSTABILITY

- Presence of incompatible materials.
- Product is considered stable.
- Hazardous polymerisation will not occur.

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

SECTION 11: TOXICOLOGICAL INFORMATION

Potential Health Effects

Acute Health Effects

- When applied to the eye(s) of animals, the material produces severe ocular lesions which are present 24 hours or more after instillation.

Eye

- The material can produce chemical burns to the eye following direct contact. Vapours or mists may be extremely irritating.

Inhaled

- Evidence shows or practical experience predicts that the material produces irritation of the respiratory system in a substantial number of individuals following inhalation.

Chronic Health Effects

- Repeated or prolonged exposure to corrosives 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.

Toxicity and Irritation

- Not available. Refer to individual constituents.

CARCINOGEN

2- Butoxyethanol

International Agency for Research on Cancer Agents Reviewed by the IARC Monographs

Group 3 (IARC) - Agents Reviewed by the IARC

SKIN

ethylene glycol

ether

New Zealand Workplace Exposure Standards

Notes

Skin monobutyl ether (WES) - Skin

SECTION 12: ECOLOGICAL INFORMATION

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

Ecotoxicity

Ingredient

Persistence: Water/Soil

Persistence: Air

Bioaccumulation

Mobility

ethylene glycol monobutyl ether water

LOW
LOW

LOW

LOW
LOW

HIGH
HIGH

SECTION 13: DISPOSAL CONSIDERATIONS

Recycle where possible

Otherwise ensure that:

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

SECTION 14: TRANSPORT INFORMATION

Labels Required: CORROSIVE

HAZCHEM:

2R

UNDG: N/A

Class or division: N/A

Subsidiary risk: N/A

UN No.: N/A

UN packing group: N/A

SECTION 15: REGULATORY INFORMATION

NOTES

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

REGULATIONS

Regulations for ingredients

ethylene glycol monobutyl ether (CAS: 111-76-2) is found on the following regulatory lists;

"IMO MARPOL 73/78 (Annex II) - List of Other Liquid Substances", "International Agency for Research on Cancer (IARC) - Agents Reviewed by the IARC Monographs", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Dangerous Goods", "New Zealand Inventory of Chemicals (NZIoC)", "New Zealand Workplace Exposure Standards (WES)", "OECD Representative List of High Production Volume (HPV) Chemicals"

sodium metasilicate, anhydrous (CAS: 6834-92-0) is found on the following regulatory lists;

"International Council of Chemical Associations (ICCA) - High Production Volume List", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Chemicals (single components)", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals", "New Zealand Hazardous Substances and New Organisms (HSNO) Act - Classification of Chemicals - Classification Data", "New Zealand Inventory of Chemicals (NZIoC)", "OECD Representative List of High Production Volume (HPV) Chemicals"

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 Concrete cleaner

No data for alkaline salts (CAS: , Not avail)

Specific advice on controls required for materials used in New Zealand can be found at <http://www.ermanz.govt.nz/search/registers.html>

SECTION 16: OTHER INFORMATION

New Zealand Decorative Concrete Ltd has compiled the information and recommendations contained in this Safety Data Sheet from sources believed to be reliable and to represent the most reasonable current opinion on the subject at the date quoted in section sixteen of the Safety Data Sheet. No warranty, guarantee or representation is made as to the correctness or sufficiency of the information. The user of this product must decide what safety measures are necessary to safely use this product, either alone or in combination with other products, and determine the environmental regulatory compliance obligations under any applicable New Zealand laws. In providing this disclaimer New Zealand Decorative Concrete Ltd removes itself from any responsibility/liability of damages/harm caused by the information or lack thereof in this Safety Data Sheet document.