

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **ReduClean**
 Item Code:
 Product Use: Detergent to clean removable greenhouses coatings.
 For professional use only.
 Restriction of Use: Refer to Section 15

New Zealand Supplier: **Horticulture Ltd**
 Address: 10 Firth Street
 Drury, 2113

Telephone: +64 9 294 8453
 Fax Number: +64 9 294 7272

New Zealand: 0800 764 766 (National Poison Centre)

Date of SDS Preparation: 29 June 2017

Section 2. Hazards Identification

This substance is hazardous according to the *HSNO (Minimum Degrees of Hazard) Regulations 2001*

EPA Approval Code: Cleaning Products (Corrosive) – HSR002526

Pictograms



Corrosive

Signal Word: **DANGER**

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
8.1A	H290	May be corrosive to metals	Category 1
8.2B	H314	Causes severe skin burns and eye damage.	Category 1B
8.3A	H318	Causes serious eye damage.	Category 1

Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P264	Wash hands thoroughly after handling.
P280	Wear protective clothing.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P390	Absorb spillage to prevent material damage.
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: If breathing is difficult, 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.
P406	Store in corrosive resistant/... container with a resistant inner liner.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Sodium dodecylbenzenesulfonate	1 - 2.5	25155-30-0
Sodium hydroxide, caustic soda	0.5 - 2	1310-73-2
Sodium p-cumenesulphonate	1 - 2.5	15763-76-5
Non-hazardous ingredients	To bal	

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice.
If on Skin	Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
If Swallowed	If swallowed, rinse mouth with water (only if the person is conscious). Drink plenty of water. Get medical advice/attention. Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.
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. Get medical advice if breathing becomes difficult.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from decomposition products	Ammonia solution. Nitrogen oxides (NOx). hydrofluoric acid.
Suitable Extinguishing media	Water spray. Carbon dioxide (CO2). Foam. Extinguishing powder. Foam. Dry powder. Carbon dioxide. Water spray. Sand. Do not use a high water jet or heavy water stream.

Precautions for firefighters and special protective clothing	Self-contained breathing apparatus. Protective clothing. Do not enter fire area without proper protective equipment, including respiratory protection. Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
HAZCHEM CODE	2X

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel. Ventilate area.

Wash away spilled liquid with plenty of water. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials. Do not allow uncontrolled leakage of product into the environment. Dilute with a large quantity of water. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Dispose of according to Local regulations.

Section 7. Handling and Storage

Precautions for Handling:

- Keep out of reach of children.
- Read label before use.
- Do not breathe fumes, vapours or mist.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Provide good ventilation in process area to prevent formation of vapour.
- Wear protective clothing.

Precautions for Storage:

- Do not store together with acids, oxidizing agents, strong bases and strong acids.
- Keep out of reach of children.
- Keep only in the original container in a cool well ventilated place.
- Keep container closed when not in use.
- Keep out of frost.
- Avoid sources of ignition and direct sunlight.
- Suitable Packaging materials: Polyethylene. Stainless steel. Unsuitable materials: Tin. Lead. Copper (Cu). Avoid aluminium, magnesium and zinc.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA	STEL
	ppm mg/m ³	ppm mg/m ³
Sodium hydroxide [1310-73-2]		Ceiling 2 mg/m ³

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.

Engineering Controls

Ensure adequate ventilation is available

Personal Protection Equipment

Eyes	Wear goggles with side shields. Avoid wearing contact lenses.
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Hands and Skin	Nitrile: penetration time > 480'; thickness > 0.35 mm. Chemical resistant PVC gloves (to European standard EN 374 or equivalent). PVC: penetration time > 480', thickness > 0.35 mm; Butylrubber: penetration time > 480', thickness > 0.5 mm; Natural rubber: penetration time > 480, thickness > 0.5 mm. Wear protective gloves. Wear shoes (boots) of Neoprene. Corrosion proof clothing. Wear suitable protective clothing.
Respiratory	Avoid inhalation of vapours. Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Combined gas/dust mask with filter type B/P2. Wear appropriate mask.
General	Do not get in eyes, on skin, or on clothing. When using do not eat, drink or smoke. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not eat, drink or smoke during use.

Section 9 Physical and Chemical Properties

Appearance	Colourless to slight yellow liquid
Odour	Characteristic
Odour Threshold	Not available
pH	13
Boiling Point	Not available
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	Not available
Density	1.1 g/cm ³
Bulk Density	Not available
Solubilities	Completely soluble
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Viscosity, dynamic	1600 mPa.s Brookfield LV, spindle 3, 5 rpm, 20°C
Particle Characteristics	Not available

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Reactivity	Acids. ammonium salts. halogenated hydrocarbons. nitrogen compounds.
Conditions to Avoid	Avoid high temperatures. Direct sunlight. Extremely high or low temperatures.
Incompatible Materials	Oxidizing agents. Strong acids. Strong bases.
Hazardous Decomposition Products	Carbon oxides (CO, CO ₂). Sulphur dioxide. Fume. Carbon monoxide. Carbon dioxide.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Causes serious eye damage.
Skin	Causes severe skin burns and eye damage.

Chronic Effects:

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

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Sodium dodecylbenzenesulfonate (25155-30-0)	
LOEC (acute)	5,6 mg/l Oncorhynchus kisutch
NOEC (acute)	3,1 mg/l Oncorhynchus kisutch
Sodium p-cumenesulphonate (15763-76-5)	
EC50 Daphnia 1	100 mg/l

Persistence and degradability	Product is biodegradable. Not established.
Bioaccumulation	No indication of bio-accumulation potential. Not established.
Mobility in Soil	No data available.
Other adverse effects	No data available.

Do not allow to enter waterways.

Section 13. Disposal Considerations

Disposal Method: Triple rinse container and dispose of as required by local regulations. Waste product and contaminated spill media should be placed into a separate suitable waste container for disposal. Contact manufacturer for further advice.

Precautions: Ensure waste containers holding waste product or contaminated spill media are properly sealable and labelled "Hazardous Waste – Corrosive"

Disposal methods to avoid: Avoid releasing the product into the environment, down sewers or into waterways where possible.

Section 14 Transport Information

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

Road and Rail Transport

UN No: 1824
 Class-primary 8
 Packing Group II
 Proper Shipping Name: SODIUM HYDROXIDE SOLUTION

Air Transport

UN No: 1824
 Class-primary 8
 Packing Group II
 Proper Shipping Name: SODIUM HYDROXIDE SOLUTION

Marine Transport

UN No: 1824
Class-primary 8
Packing Group II
Proper Shipping Name: SODIUM HYDROXIDE SOLUTION

DG Exemption:

Limited quantities exemption for <1L

Section 15 Regulatory Information

EPA Approval Code: Cleaning Products (Corrosive) – HSR002526

HSNO Classification: 8.1A, 8.2B, 8.3A

HSNO Controls:

	Trigger Quantity
Approved Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250L(8.2B)
Emergency Response Plan	1000L(8.2B)
Secondary Containment	1000L(8.2B)
Restriction of Use	None

Section 16 Other Information

Glossary

AWC	Aggregate Water Capacity.
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	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

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.
Disclaimer

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The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the New Zealand distributor, if further information is required.

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Review Date: 29 June 2022

Product Name: ReduClean
Date of SDS: 29 June 2017

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