

### 1. Identification of Substance & Company

#### Product

Product name	BioClean Degreaser
Product codes	BIO/1, BIO/5, BIO/20
HSNO approval	HSR002530
Approval description	Cleaning Products (Subsidiary Hazard) Group Standard 2020
UN number	NA
DG class	NA
Proper Shipping Name	NA
Packaging group	NA
Hazchem code	NA
Uses	General purpose cleaner

#### Company Details

Company	GreenEarth Solutions Ltd
Address	PO Box 64-125 Botany Auckland 2163 New Zealand
Telephone	0064 9 272 4141
Email	mail@greeneearth.co.nz
Website	www.greeneearth.co.nz

**Emergency Telephone Number: 09 272 4141**

### 2. Hazard Identification

#### Approval

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO, Approval HSR002530, Cleaning Products (Subsidiary Hazard) Group Standard 2020). The substance has been classified as hazardous according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

Classes	Hazard Statements
Skin irritation cat 2	H315 - Causes skin irritation.
Eye damage cat 1	H318 - Causes serious eye damage.

#### SYMBOLS

**DANGER**



#### Other Classifications

There are no other Classifications that are known to apply.

#### Precautionary Statements

<b>Prevention</b>	P101 - If medical advice is needed, have product container or label at hand. P102 - Keep out of reach of children. P103 - Read label before use. . P264 - Wash hands thoroughly after handling. P280 - Wear protective gloves/eye protection.
<b>Response</b>	P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P332+P313 - If skin irritation occurs: Get medical advice/ attention. P362 - Take off contaminated clothing and wash before re-use. 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 CENTRE or doctor/physician.
<b>Storage</b>	none
<b>Disposal</b>	P501 - Dispose of contents/container in accordance with local/regional/national/international regulation.

### 3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Surfactant	proprietary	1-5
Monobutyl glycol ether	proprietary	1-5
Monoethanolamine	proprietary	0.5-1.5
Sodium metasilicate	6834-92-0	0.5-1.5
Ingredients not contributing to GHS classes including water, dyes, fragrance	Mixture	balance

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

### 4. First Aid

#### General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed burned or irritated by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

**Recommended first aid facilities** Ready access to running water is required. Accessible eyewash is required.

#### Exposure

**Swallowed** Do NOT induce vomiting. Give a glass of water to drink. Contact a doctor. If conscious, give plenty of water to drink. DO NOT INDUCE vomiting. Contact the National Poisons Centre or a Doctor immediately. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs.

**Eye contact** 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 CENTRE or doctor/physician.

**Skin contact** IF ON SKIN: Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/ attention. Take off contaminated clothing and wash before re-use.

**Inhaled** Remove victim from exposure - avoid becoming a casualty. Remove contaminated clothing and loosen remaining clothing. Allow patient to assume most comfortable position and keep warm. Keep victim at rest until fully recovered. If breathing is laboured and patient cyanotic (blue), ensure airways are clear and have a qualified person give oxygen through a face mask. If breathing has stopped, apply artificial respiration at once. In event of cardiac arrest, apply cardiopulmonary resuscitation (CPR) if trained. Seek medical attention.

#### Advice to Doctor

Treat symptomatically

### 5. Firefighting Measures

**Fire and explosion hazards:** There are no specific risks for fire/explosion for this chemical. It is non-flammable.

**Suitable extinguishing substances:** Carbon dioxide, extinguishing powder or water jet. Fight larger fires with water jet or alcohol resistant foam.

**Unsuitable extinguishing substances:** Unknown.

**Products of combustion:** Carbon dioxide, and if combustion is incomplete, carbon monoxide and smoke. Water. May form toxic mixtures in air and may accumulate in sumps, pits and other low-lying spaces, forming potentially explosive mixtures.

**Protective equipment:** Self-contained breathing apparatus. Safety boots, non-flammable overalls, gloves, hat and eye protection.

**Hazchem code:** NA

### 6. Accidental Release Measures

**Containment** If greater than 10000L is stored, secondary containment and emergency plans to manage any potential spills must be in place. In all cases design storage to prevent discharge to stormwater.

**Emergency procedures** In the event of spillage alert the fire brigade to location and give brief description of hazard. Stop the source of the leak, if safe to do so. Shut off all possible sources of ignition. Wear protective equipment to prevent skin, eye and respiratory exposure. Clear area of any unprotected personnel. Contain using sand, earth or vermiculite. Do not use



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	sawdust on concentrate. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Use absorbent (soil, sand or other inert material). Rags are not recommended for the clean-up of spills, as they may create fire or environmental hazard. Collect and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Mop up and collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill. Dispose of only in accord with all regulations.
Precautions	Wear protective equipment to prevent skin and eye contamination and the inhalation of vapours. Work up wind or increase ventilation.

## 7. Storage & Handling

Storage	Avoid storage of harmful substances with food. Store out of reach of children. Containers should be kept closed in order to minimise contamination. Keep from extreme heat and open flames. Avoid contact with incompatible substances as listed in Section 10.
Handling	Keep exposure to a minimum, and minimise the quantities kept in work areas. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of vapour, mist or aerosols.

## 8. Exposure Controls / Personal Protective Equipment

### Workplace Exposure Standards



A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m<sup>3</sup> for respirable particulates and 10mg/m<sup>3</sup> for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA*	WES-STEL
	2-butoxyethanol	25ppm, 121mg/m <sup>3</sup> (skin)	data unavailable
	monoethanolamine	3ppm, 7.5mg/m <sup>3</sup>	6ppm, 15mg/m <sup>3</sup>

### Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

### Personal Protective Equipment

Eyes		Protect eyes with goggles, safety glasses or full face mask. Avoid wearing contact lenses.
Skin		Avoid repeated or prolonged skin contact. Wear overalls, rubber boots and impervious gloves. Rubber gloves are recommended. Replace frequently. Gloves should be checked for tears or holes before use. Remove protective clothing and wash exposed areas with soap and water prior to eating, drinking or smoking.
Respiratory		A respirator when airborne concentrations approach the WES (section 8). Use a respirator with an organic vapour cartridge. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order.

### WES Additional Information

Not applicable

## 9. Physical & Chemical Properties

Appearance	clear green liquid
Odour	eucalyptus odour
pH	11
Vapour pressure	no data
Viscosity	no data
Boiling point	~100°C



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<b>Volatile materials</b>	no data
<b>Freezing / melting point</b>	no data
<b>Solubility</b>	soluble in water
<b>Specific gravity / density</b>	1.04 (water = 1)
<b>Flash point</b>	not applicable
<b>Danger of explosion</b>	not explosive
<b>Auto-ignition temperature</b>	no data
<b>Upper &amp; lower flammable limits</b>	no data
<b>Corrosiveness</b>	non corrosive

## 10. Stability & Reactivity

<b>Stability</b>	Stable
<b>Conditions to be avoided</b>	Containers should be kept closed in order to avoid contamination. Keep from extreme heat and open flames.
<b>Incompatible groups</b>	Oxidisers, acids, bases
<b>Substance Specific Incompatibility</b>	none known
<b>Hazardous decomposition products</b>	Oxides of carbon, fragmented hydrocarbons.
<b>Hazardous reactions</b>	none known

## 11. Toxicological Information

### Summary

IF SWALLOWED: may gastrointestinal irritation, nausea, vomiting.  
IF IN EYES: can cause watering, blurred vision and irritation which can result in corneal damage.  
IF ON SKIN: may irritation, non allergic dermatitis and defatting of the skin.  
IF INHALED: may cause irritation of the respiratory system.

### Supporting Data

<b>Acute</b>	<b>Oral</b>	Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (oral, rat) for the mixture is >2000 mg/kg. Data considered includes: water n/a, 2-butoxyethanol 1414mg/kg (guinea pig), also aspiration toxicity, monoethanolamine 600-800 mg/kg (rat), Sodium metasilicate 1280mg/kg (rat).
	<b>Dermal</b>	Using LD <sub>50</sub> 's for ingredients, the calculated LD <sub>50</sub> (dermal, rat) for the mixture is >2000 mg/kg. Data considered includes: water n/a, Synthecol AO NA, 2-butoxyethanol >2000mg/kg (guinea pig), monoethanolamine 1000 mg/kg (rabbit), Sodium metasilicate.
	<b>Inhaled</b>	Using LC <sub>50</sub> 's for ingredients, the calculated LC <sub>50</sub> (inhalation, rat) for the mixture is 20mg/L. Data considered includes: 2-butoxyethanol 2.174 mg/L (rat, mist). monoethanolamine 2.45mg/l (mouse, rabbit).
	<b>Eye</b>	The mixture is considered to be corrosive to the eye, because some of the ingredients present at >3% are considered eye corrosives.
	<b>Skin</b>	The mixture is considered to be a skin irritant, because some of the ingredients present are considered skin irritants in more concentrated form.
<b>Chronic</b>	<b>Sensitisation</b>	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	<b>Mutagenicity</b>	No ingredient present at concentrations > 0.1% is considered a mutagen.
	<b>Carcinogenicity</b>	No ingredient present at concentrations > 0.1% is considered a carcinogen.
	<b>Reproductive / Developmental</b>	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation.
	<b>Systemic Aggravation of existing conditions</b>	No ingredient present at concentrations > 1% is considered a target organ toxicant. None known.

## 12. Ecological Data

### Summary

This mixture may be harmful towards aquatic organism, if not diluted. Prevent discharge to sewers, drains and waterways.

### Supporting Data

<b>Aquatic</b>	Using EC <sub>50</sub> 's for ingredients, the calculated EC <sub>50</sub> for the mixture is between 1 and 100 mg/L. Data considered includes: water n/a, surfactant: 0.71 - 1 mg/l (96hr, Brachydanio rerio (Fish, fresh water) .
<b>Bioaccumulation</b>	No data
<b>Degradability</b>	No data



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Soil	No evidence of soil toxicity.
Terrestrial vertebrate	This mixture is not considered harmful towards terrestrial vertebrates
Terrestrial invertebrate	No evidence of ecotoxicity towards terrestrial invertebrates.
Biocidal	no data
Environmental effect levels	No EELs are available for this mixture or ingredients

### 13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority. The substance must be treated and therefore rendered non-hazardous before discharge to the environment.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

### 14. Transport Information

#### Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

#### IMDG

UN number:	NA	Proper shipping name:	Not regulated
Class(es)	NA	Packing group:	NA
Precautions:	NA	EmS	NA

#### IATA

UN number:	NA	Proper shipping name:	Not regulated
Class(es)	NA	Packing group:	NA
Precautions:	NA	ERG Guide	NA

### 15. Regulatory Information

This product is an approved substance under the Hazardous Substances and New Organisms Act (HSNO). Approval code: HSR002530, Cleaning Products (Subsidiary Hazard) Group Standard 2020. All ingredients appear on the NZIoC.

#### Specific Controls

Key workplace requirements are:

SDS	To be available within 10 minutes in workplaces storing any quantity.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Required if > 10000L is stored.
Certified handler	Not required.
Tracking	Not required.
Bundling & secondary containment	Required if > 10000L is stored.
Signage	Required if > 1000L is stored.
Location test certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.





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### Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

## 16. Other Information

### Abbreviations

<b>Approval Code</b>	Approval HSR002530, Cleaning Products (Subsidiary Hazard) Group Standard 2020 Controls, EPA. <a href="http://www.epa.govt.nz">www.epa.govt.nz</a>
<b>CAS Number</b>	Unique Chemical Abstracts Service Registry Number
<b>EC<sub>50</sub></b>	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
<b>EPA</b>	Environmental Protection Authority (New Zealand)
<b>GHS</b>	Globally Harmonised System of Classification and Labelling of Chemicals, 7 <sup>th</sup> revised edition, 2017, published by the United Nations.
<b>HAZCHEM Code</b>	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
<b>HSNO</b>	Hazardous Substances and New Organisms (Act and Regulations)
<b>IARC</b>	International Agency for Research on Cancer
<b>LEL</b>	Lower Explosive Limit
<b>LD<sub>50</sub></b>	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
<b>LC<sub>50</sub></b>	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
<b>NZIoC</b>	New Zealand Inventory of Chemicals
<b>STEL</b>	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
<b>TWA</b>	Time Weighted Average – generally referred to WES averaged over typical work day (usually 8 hours)
<b>UEL</b>	Upper Explosive Limit
<b>UN Number</b>	United Nations Number
<b>WES</b>	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

### References

<b>Data</b>	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
<b>Controls</b>	EPA notices, <a href="http://www.epa.govt.nz">www.epa.govt.nz</a> , Health and Safety at Work (Hazardous Substances) Regulations 2017, <a href="http://www.legislation.govt.nz">www.legislation.govt.nz</a>
<b>WES</b>	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – <a href="http://www.worksafe.govt.nz">www.worksafe.govt.nz</a> .
<b>Other References:</b>	EU ECHA, ingredients SDS's, ChemIDplus

### Review

<b>Date</b>	<b>Reason for review</b>
May 2017	Not applicable – new SDS
March 2022	5 yearly review, HSNO to GHS

### Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email [info@datachem.co.nz](mailto:info@datachem.co.nz) or phone: +64 21 1040951.

