

Safety Data Sheet according to WHS and ADG requirements

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**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING**

**Product Identifier**

Product name **BIOENZYMES OPEN**  
Chemical Name **Mixture blended from discrete components – not applicable**  
Synonyms  
Chemical Formula **Mixture blended from discrete components – not applicable**  
Other Means of Identification **Not Available**  
CAS Number **Mixture blended from discrete components – not applicable**

**Relevant identified uses of the substance or mixture and uses advised against**

Relevant Identified Uses **ODOUR REMOVAL / DRAIN MAINTENANCE**

**Details of the supplier of the safety data sheet**

Registered Company Name **BioEnzymes**  
Address **Unit 1C 424 Bilsen Rd Geebung QLD 4034 AUSTRALIA**  
Telephone **+61 7 3630 4683**  
FAX  
Website [www.bioenzymes.com.au](http://www.bioenzymes.com.au)  
Email [james@bioenzymes.com.au](mailto:james@bioenzymes.com.au)

**Emergency telephone number**

Organisation **Chemical Consulting Services Pty Ltd**  
Emergency Contact Number **0417720832**  
Other Emergency Numbers **13 11 26 (Poisons Information Centre Hotline)**

**SECTION 2 HAZARDS IDENTIFICATION**

Classification of the substance or mixture

**HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS. According to the WHS Regulations and the ADG Code.**

**HAZARD RATING**

**POISONS SCHEDULE CLASSIFICATION** NOT APPLICABLE  
Serious Eye Irritation 2A

**Label elements**



**GHS LABEL ELEMENTS SIGNAL WORD**

**WARNING**

**Hazard statement(s)**

H319 Causes serious eye irritation

**Precautionary statement(s) Prevention**

P280 Wear protective gloves/protective clothing/eye protection/face protection.  
 P270 Do not eat, drink or smoke when using this product.  
 P273 Avoid release to the environment.

**Precautionary statement(s) Response**

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 CENTER or doctor/physician.  
 P362 Take off contaminated clothing and wash before reuse.  
 P301+P312 IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P302+P352 IF ON SKIN: Wash with plenty of soap and water.  
 P330 Rinse mouth.  
 P332+P313 If skin irritation occurs: Get medical advice/attention.

**Precautionary statement(s) Storage**

NOT APPLICABLE

**Precautionary statement(s) Disposal**

P501 Dispose of contents/container in accordance with local regulations.

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**Substances**

CAS #	% w/w	NAME
577-11-7	< 5	Sodium dioctyl sulfosuccinate
34590-94-8	1 – 10	Dipropylene glycol monomethyl ether
68131-40-8	< 5%	Secondary ethoxylated alcohols
	100	Ingredients determined not to be hazardous

**Mixtures**

See section above for composition of Substances

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

**Eye Contact** If this product comes in contact with eyes:  
 Wash out immediately with water.  
 If irritation continues, seek medical attention.  
 Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.

**Skin Contact** If skin contact occurs:  
 Immediately remove all contaminated clothing, including footwear.  
 Flush skin and hair with running water (and soap if available).  
 Seek medical attention in event of irritation.

**Inhalation** If fumes, aerosols or combustion products are inhaled remove from contaminated area.  
 Other measures are usually unnecessary.

**Ingestion** IF SWALLOWED, REFER FOR MEDICAL ATTENTION, WHERE POSSIBLE, WITHOUT DELAY.  
 For advice, contact a Poisons Information Centre or a doctor.  
 Qualified first-aid personnel should treat the patient following observation and employing supportive measures as indicated by the patient's condition.  
 If the services of a medical officer or medical doctor are readily available, the patient should be placed in his/her care and a copy of the SDS should be provided. Further action will be the responsibility of the medical specialist.  
 If medical attention is not available on the worksite or surroundings send the patient to a hospital together with a copy of the SDS.

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

## SECTION 5 FIREFIGHTING MEASURES

### Extinguishing media

There is no restriction on the type of extinguisher which may be used. Use extinguishing media suitable for surrounding area.

### Special hazards arising from the substrate or mixture

**Fire Incompatibility** None known.

### Advice for firefighters

**Fire Fighting** Alert Fire Brigade and tell them location and nature of hazard.  
Wear breathing apparatus plus protective gloves in the event of a fire.  
Prevent, by any means available, spillage from entering drains or water courses.  
Use fire fighting procedures suitable for surrounding area.  
**DO NOT** approach containers suspected to be hot.  
Cool fire exposed containers with water spray from a protected location.  
If safe to do so, remove containers from path of fire.  
Equipment should be thoroughly decontaminated after use.

### Fire/Explosion Hazard

Not considered a significant fire risk, however containers may burn.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### Personal precautions, protective equipment and emergency procedures

See section 8

### Environmental precautions

See section 12

**Minor Spills** Remove all ignition sources.  
Clean up all spills immediately.  
Avoid contact with skin and eyes.  
Control personal contact with the substance, by using protective equipment.  
Use dry clean up procedures and avoid generating dust.  
Place in a suitable, labelled container for waste disposal.

**Major Spills** Moderate hazard.  
**CAUTION:** Advise personnel in area.  
Alert Emergency Services and tell them location and nature of hazard.  
Control personal contact by wearing protective clothing.  
Prevent, by any means available, spillage from entering drains or water courses.  
Recover product wherever possible.  
**IF DRY:** Use dry clean up procedures and avoid generating dust. Collect residues and place in sealed plastic bags or other containers for disposal. **IF WET:** Vacuum/shovel up and place in labelled containers for disposal.  
**ALWAYS:** Wash area down with large amounts of water and prevent runoff into drains.  
If contamination of drains or waterways occurs, advise Emergency Services.

## SECTION 7 HANDLING AND STORAGE

### Precautions for safe handling

Avoid all personal contact, including inhalation.  
Wear protective clothing when risk of exposure occurs.  
Use in a well-ventilated area.  
Prevent concentration in hollows and sumps.  
**DO NOT enter confined spaces until atmosphere has been checked.**  
**DO NOT allow material to contact humans, exposed food or food utensils.**  
Avoid contact with incompatible materials.  
**When handling, DO NOT eat, drink or smoke.**  
Keep containers securely sealed when not in use.  
Avoid physical damage to containers.  
Always wash hands with soap and water after handling.  
Work clothes should be laundered separately. Launder contaminated clothing before re-use.  
Use good occupational work practice.  
Observe manufacturer's storage and handling recommendations contained within this SDS.  
Atmosphere should be regularly checked against established exposure standards to ensure safe working conditions are maintained.  
Store in original containers.  
Keep containers securely sealed.

Store in a cool, dry, well-ventilated area.  
 Store away from incompatible materials and foodstuff containers.  
 Protect containers against physical damage and check regularly for leaks.  
 Observe manufacturer's storage and handling recommendations contained within this SDS.

**Conditions for safe storage, including any incompatibilities**

**Suitable container**

Polyethylene or polypropylene container.  
 Packing as recommended by manufacturer.  
 Check all containers are clearly labelled and free from leaks.

**Storage incompatibility**

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**

**INGREDIENT DATA**

Source Australia Exposure Standards	Ingredient	Material name	TWA	STEL	Peak	Notes
	dipropylene glycol monomethyl ether	(2-Methoxymethylethoxy) propanol	308 mg/m3 / 50 ppm	N/A	N/A	Sk

**EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
sodium dioctyl sulfosuccinate	Dioctyl sodium sulfosuccinate	5.7 mg/m3	63 mg/m3	380 mg/m3
dipropylene glycol monomethyl ether	Dipropylene glycol methyl ether	150 ppm	1700 ppm	9900 ppm

Ingredient	Original IDLH	Revised IDLH
sodium dioctyl sulfosuccinate	Not Available	Not Available
dipropylene glycol monomethyl ether	Unknown	600 ppm

**MATERIAL DATA**

for dipropylene glycol monomethyl ether:  
 The TLV-TWA and STEL recommendations were thought to be sufficiently low to prevent objectionable irritation and provide a considerable safety factor against CNS impairment. In view of the large dose required to cause weight loss and narcosis in rabbits the skin notation is being reviewed.  
 Probable minimum concentration that may cause minor nasal irritation is about 35 ppm.  
 Probable minimum concentration that may cause tolerable eye, throat, and respiratory irritation is about 75 ppm.  
 Lowest concentration at which vapour is rated tolerable 80 ppm.  
 Based on these criteria it is possible that an occasional person may find the vapour of dipropylene glycol monomethyl ether intolerable at the recommended 100 ppm TLV.  
 Dermal absorption of the substance under specific experimental conditions led to narcotic effects and consequent deaths. However, only slight narcotic effects were seen after several hours exposure of rats to aerosols which wet the fur of animals. Rabbits tolerated dermal application of 3.0 ml/kg per day without effects. A skin designation is thought to be unnecessary by the MAK committee, in contrast with others.

**Exposure controls**

**Appropriate engineering controls**

Engineering controls are used to remove a hazard or place a barrier between the worker and the hazard. Well-designed engineering controls can be highly effective in protecting workers and will typically be independent of worker interactions to provide this high level of protection.

The basic types of engineering controls are:

Process controls which involve changing the way a job activity or process is done to reduce the risk.  
 Enclosure and/or isolation of emission source which keeps a selected hazard "physically" away from the worker and ventilation that strategically "adds" and "removes" air in the work environment. Ventilation can remove or dilute an air contaminant if designed properly. The design of a ventilation system must match the particular process and chemical or contaminant in use.

Employers may need to use multiple types of controls to prevent employee overexposure.

Local exhaust ventilation is required where solids are handled as powders or crystals; even when particulates are relatively large, a certain proportion will be powdered by mutual friction.

If in spite of local exhaust an adverse concentration of the substance in air could occur, respiratory protection should be considered.  
 Such protection might consist of:

- (a): particle dust respirators, if necessary, combined with an absorption cartridge;
- (b): filter respirators with absorption cartridge or canister of the right type;
- (c): fresh-air hoods or masks.

Air contaminants generated in the workplace possess varying "escape" velocities which, in turn, determine the "capture velocities" of fresh circulating air required to effectively remove the contaminant.

**Personal protection**



Safety glasses with side shields. Chemical goggles.

Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses 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], [AS/NZS 1336 or national equivalent]

Select gloves tested to a relevant standard (e.g. Europe EN 374, US F739, AS/NZS 2161.1 or national equivalent).

When prolonged or frequently repeated contact may occur, a glove with a protection class of 5 or higher (breakthrough time greater than 240 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. When only brief contact is expected, a glove with a protection class of 3 or higher (breakthrough time greater than 60 minutes according to EN 374, AS/NZS 2161.10.1 or national equivalent) is recommended. Some glove polymer types are less affected by movement and this should be taken into account when considering gloves for long-term use. Contaminated gloves should be replaced. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturiser is recommended. Experience indicates that the following polymers are suitable as glove materials for protection against undissolved, dry solids, where abrasive particles are not present. polychloroprene. nitrile rubber. butyl rubber. fluorocautchouc. polyvinyl chloride. Gloves should be examined for wear and/ or degradation constantly.

**Other protection**

Overalls.  
P.V.C. apron.  
Barrier cream.  
Skin cleansing cream.  
Eye wash unit.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**
**Information on basic physical and chemical properties**
**Appearance**

CLEAR BLUE LIQUID

Physical state	Liquid	Relative Density (Water = 1)	1.00 @ 20°C
Odour	STRONG, SWEET FRAGRANCE	Partition co-efficient n-octanol / water	Not Available
Odour Threshold	Not Available	Autoignition Temperature	Not Available
pH (as supplied)	6.5-8.5 typical	Decomposition Temperature	Not Available
Melting Point / Freezing Point (°C)	Not Available	Viscosity	1 cSt @ 20°C
Initial Boiling point and boiling range (°C)	100°C	Molecular Weight	Not Applicable
Flash Point (°C)	Not Applicable	Taste	Not Applicable
Evaporation Rate	Not Determined	Explosive Properties	Not Applicable
Flammability	Not Flammable	Oxidizing Properties	Not Oxidising
Upper Explosive Limit (UEL %)	Not Applicable	Surface Tension (mN/m)	Not Determined
Lower Explosive Limit (LEL %)	Not Applicable	Volatile Component	Approx. 100%
Vapour pressure (kPa)	As for water	Gas Group	Not Applicable
Solubility in water (g/L)	Miscible	pH as a solution (1%)	7 typical
Vapour density (Air = 1)	Not Determined	VOC g/L	Not determined

**SECTION 10 STABILITY AND REACTIVITY**

<b>Reactivity</b>	See section 7
<b>Chemical stability</b>	Unstable in the presence of incompatible materials. Product is considered stable. Hazardous polymerisation will not occur.
<b>Possibility of hazardous reactions</b>	See section 7
<b>Conditions to avoid</b>	See section 7
<b>Incompatible materials</b>	See section 7
<b>Hazardous decomposition products</b>	See section 5

## SECTION 11 TOXICOLOGICAL INFORMATION

### Information on toxicological effects

**Inhaled** This is not anticipated to be an issue under normal conditions of use.

If fumes or combustion products are inhaled remove from contaminated area.

- Lay patient down. Keep warm and rested.
- Prostheses 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** This is not anticipated to be an issue under normal conditions of use.

Accidental ingestion of the material may be damaging to the health of the individual.

Central nervous system (CNS) depression may include nonspecific discomfort, symptoms of giddiness, headache, dizziness, nausea, anaesthetic effects, slowed reaction time, slurred speech and may progress to unconsciousness. Serious poisonings may result in respiratory depression and may be fatal.

Dipropylene monomethyl ether (DPME) produces marked central nervous system depression in rats. Lethal doses produced respiratory failure within 48 hours.

**Skin Contact**

The material may produce mild skin irritation; limited evidence or practical experience suggests, that the material either: produces mild inflammation of the skin in a substantial number of individuals following extended contact, and/or produces significant, but mild, inflammation when applied to the healthy intact skin of animals (for up to four hours), such inflammation being present twenty-four hours or more after the end of the exposure period.

**Eye**

Direct eye contact with some concentrated anionic surfactants/ hydrotropes produces corneal damage, in some cases severe. Low concentrations may produce immediate discomfort, conjunctival hyperaemia, and oedema of the corneal epithelium. Healing may take several days. Temporary clouding of the cornea may occur. Sulfosuccinates are often eye irritants. When a 0.1 ml solution of disodium laureth sulfosuccinate was instilled into the conjunctival sac of the eyes of rabbits the material produced a mild degree of conjunctivitis that lasted for 7 days.

**Chronic**

Principal routes of exposure are by accidental skin and eye contact and by inhalation of vapours especially at higher temperatures.

Reference Data

There are no direct results for the mixture – data is available for individual ingredients

	TOXICITY	IRRITATION
sodium dioctyl sulfosuccinate	Dermal (rabbit) LD50: 2525 mg/kg[1] Oral (rat) LD50: >1320 mg/kg[1]	Eye (rabbit): 0.250 mg - mild Eye (rabbit): 1% - SEVERE Skin (rabbit): 10 mg/24h-moderate
dipropylene glycol monomethyl ether	dermal (rat) LD50: >19000 mg/kg[1] Oral (rat) LD50: 5130 mg/kg[1]	Eye (human): 8 mg - mild Eye (rabbit): 500 mg/24hr - mild Skin (rabbit): 238 mg - mild Skin (rabbit): 500 mg (open)-mild

**Legend:** 1. Value obtained from Europe ECHA Registered Substances - Acute toxicity 2.\* Value obtained from manufacturer's SDS. Unless otherwise specified data extracted from RTECS - Register of Toxic Effect of chemical Substances

## SECTION 12 ECOLOGICAL INFORMATION

**Toxicity**

Ingredient	Endpoint	Test Duration (hr)	Species	Value	Source
sodium dioctyl sulfosuccinate	LC50	96	Fish	=12.5mg/L	1
sodium dioctyl sulfosuccinate	EC50	48	Crustacea	=36mg/L	1
sodium dioctyl sulfosuccinate	BCF	72	Fish	0.0055mg/L	4
sodium dioctyl sulfosuccinate	EC0	48	Crustacea	=12.5mg/L	1
sodium dioctyl sulfosuccinate	NOEC	96	Fish	=12.5mg/L	1
dipropylene glycol monomethyl ether	LC50	96	Fish	1307mg/L	3
dipropylene glycol monomethyl ether	EC50	48	Crustacea	1930mg/L	2
dipropylene glycol monomethyl ether	EC50	72	Algae or other aquatic plants	>969mg/L	2
dipropylene glycol monomethyl ether	EC50	384	Crustacea	297mg/L	3
dipropylene glycol monomethyl ether	NOEC	72	Algae or other aquatic plants	969mg/L	2

Legend:

Extracted from 1. IUCLID Toxicity Data 2. Europe ECHA Registered Substances - Ecotoxicological Information - Aquatic Toxicity 3. EPIWIN Suite V3.12 - Aquatic Toxicity Data (Estimated) 4. US EPA, Ecotox database - Aquatic Toxicity Data 5. ECETOC Aquatic Hazard Assessment Data 6. NITE (Japan) - Bioconcentration Data 7. METI (Japan) - Bioconcentration Data 8. Vendor Data

### SECTION 13 DISPOSAL CONSIDERATIONS

#### Waste treatment methods

Legislation addressing waste disposal requirements may differ by country, state and/ or territory. Each user must refer to laws operating in their area. In some areas, certain wastes must be tracked.

A Hierarchy of Controls seems to be common - the user should investigate:

Reduction  
Reuse  
Recycling  
Disposal (if all else fails)

This material may be recycled if unused, or if it has not been contaminated so as to make it unsuitable for its intended use. If it has been contaminated, it may be possible to reclaim the product by filtration, distillation or some other means. Shelf life considerations should also be applied in making decisions of this type. Note that properties of a material may change in use, and recycling or reuse may not always be appropriate.

DO NOT allow wash water from cleaning or process equipment to enter drains.

It may be necessary to collect all wash water for treatment before disposal.

In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.

Where in doubt contact the responsible authority.

Recycle wherever possible.

Consult manufacturer for recycling options or consult local or regional waste management authority for disposal if no suitable treatment or disposal facility can be identified.

Dispose of by: burial in a land-fill specifically licenced to accept chemical and / or pharmaceutical wastes or incineration in a licenced apparatus (after admixture with suitable combustible material).

Decontaminate empty containers. Observe all label safeguards until containers are cleaned and destroyed.

### SECTION 14 TRANSPORT INFORMATION

#### Labels Required

Marine Pollutant NO

HAZCHEM Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

### SECTION 15 REGULATORY INFORMATION

Safety, health and environmental regulations / legislation specific for the substance or mixture

Australia - AICS Y

Legend:

Y = All ingredients are on the inventory

N = Not determined or one or more ingredients are not on the inventory and are not exempt from listing (see specific ingredients in brackets)

### SECTION 16 OTHER INFORMATION

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average

PC—STEL: Permissible Concentration-Short Term Exposure Limit

IARC: International Agency for Research on Cancer

ACGIH: American Conference of Governmental Industrial Hygienists

STEL: Short Term Exposure Limit

TEEL: Temporary Emergency Exposure Limit.

IDLH: Immediately Dangerous to Life or Health Concentrations

OSF: Odour Safety Factor

NOAEL :No Observed Adverse Effect Level

LOAEL: Lowest Observed Adverse Effect Level

TLV: Threshold Limit Value

LOD: Limit Of Detection

OTV: Odour Threshold Value

BCF: BioConcentration Factors

BEI: Biological Exposure Index