page 1/6 Version 1 Date: 2008-04-14

1. IDENTIFICATION OF THE SUBSTANCE/PRODUCT AND OF THE COMPANY/UNDERTAKING

- 1.1 Identification of the Substance or Preparation: Desert Microbial Urinal Cube
- 1.2 Intended use of the Substance/Preparation: Biological detergent block for urinals and troughs

1.3	Company/Undertaking Identification:	Desert Ecosystems Pty Ltd
		326a Payneham Road
		PAYNEHAM. SA 5070
		Tel: +618 8132 0460
		Fax: +618 8219 0087
		info@desert.com.au
1.4	Emergency Telephone Number:	+618 8132 0460 (workhours)

2. HAZARDS IDENTIFICATION

Health Hazard (inhalation, ingestion, contact with skin or eyes):
Most Important Hazards: The preparation is not classified as dangerous according to the criteria laid down in EU Council Directives 67/548/EC (Annex VI of Directive 2001/59/EC) and 1999/45/EEC.

Most Important Adverse Human Health Effects: Contains Citral, limonene and citronellol that may cause allergic reaction.

2.2 Environmental Hazard : High water solubility. Not classified as dangerous for environment.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical/trade name	Quantity %	Symbols	R phrase	CAS No.	EINECS, ELINCS
Sodium dodecylbenzene sulphonate	< 20%	Xn	22, 36/37/38	25155-30-0	-
Citric 181063 (perfume)	1-5%	Xi	R 36/38	-	-

Desert Microbial Urinal Cube

4. FIRST	F-AID MI	EASURES	
	4.1	Exposure by Inhalation:	Remove victim to fresh air. Rest and keep warm. Seek medical attention if required.
	4.2	Exposure by skin :	Immediately wash affected area thoroughly with soap and water. Seek medical attention if irritation develops. Organisms used are non pathogenic but can cause infection when in contact with open wounds.
	4.3	Exposure by eyes contact:	Immediately flush eyes with plenty of water and seek medical attention if irritation develops.
	4.4	Exposure by Ingestion:	Do not induce vomiting. Drink water to dilute. Seek medical attention.
5. FIRE FIGHTING MEASURES			
	Suitable	e Extinguishing Media:	Water, Foam, dry chemical or carbon dioxide extinguishers may be used.
	Extinguishing Media not to be used: Specific Exposure Hazards:		None
			If the substance is involved in a fire, oxides of carbon and nitrogen may be evolved.
	Protect	ive Equipment for Fire Fighters:	Full protective clothing and self-contained breathing apparatus should be worn.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Evacuate personnel from immediate vicinity. Wear appropriate protective clothing (goggles, gloves and a vapour mask). Refer to section 8.
Environmental Precautions:	Avoid excessive release to drains and natural water.
Methods for Cleaning Up:	Stop the leak or release at source. Contain liquid when possible to prevent further contamination of soil, surface water and ground water. Absorb spillages with a suitable inert material (e.g. sand or soil) or vacuum pump. Transfer the spillage to waste containers labelled in the same way as the original containers. Clean the spillage area with water and detergent. Small releases should not pose any hazard to the local environment.
7. HANDLING AND STORAGE 7.1 Handling:	
Precautions:	The substance should be handled under conditions of good industrial hygiene and in conformity with any local regulations in order to avoid unnecessary exposure.
Technical Measures: Specific Requirements:	The use of gloves will reduce exposure to the preparation. None.

Desert Microbial Urinal Cube

desert

7.2	Storage:	
	Specific design for storage roo	oms or vessels: None
	Incompatible Materials:	Strong acids or alkali compounds may inactivate biological cultures.
		Avoid strong oxidising agents. Do not store in metallic containers
	Conditions of Storage:	Store in a cool, dry, well-ventilated area. Keep containers tightly closed
		when not in use. Avoid freezing temperatures. Avoid temperatures
		above 45 °C to preserve biological stability.
	Quantity Limits:	None
	Packaging Materials:	Packaging can be recycled

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Exposure limits

STEL 8h dusts =10 mg/m3 (particles of a diameter < 100μ) et 5 mg/m3 (particle of a diameter < 5μ)

8.2 Professional exposure control	
Personal Protective Equipment:	The user as part of a formal exposure risk assessment should decide upon the provision of personal protective equipment and the need to provide engineering control measures. Based upon the available toxicological information the protective measures described below should be regarded as a minimum.
Respiratory Protection:	No special ventilation is usually necessary. However if operating conditions create high airborne concentrations of this material, based upon available information and in the absence of occupational exposure limits the use of a vapour mask to a minimum standard of EN405 with filters compliant with NF EN 143 norm (type FFP1)is recommended.
Hand Protection:	Avoid prolonged or frequent repeated skin contact especially with broken skin. Chemical protective gloves to a Standard EN374 should be provided. Usage periods should not exceed the breakthrough times for the chemical stated by the manufacturer of the glove.
Eye Protection:	Safety glasses recommended, to prevent eye exposure, should be used when handling the product. The protection should be capable of giving chemical protection as classified in BS2092 or EN166.
Skin Protection:	Avoid contact with broken skin. In case of prolonged/frequent direct handling of the material it is recommended to wear chemical protective clothing compliant with NF EN 13034 norm.
Engineering Measures:	None
Specific Control Parameters:	None

page 4/6 Version 1 Date: 2008-04-14

Desert Microbial Urinal Cube	Desert	Microbial	Urinal	Cube
------------------------------	--------	-----------	--------	------

9.	PHYSICAL AND CHEMICAL PROPERTIES	;
	Physical state:	Coloured waxy solid
	Appearance:	blue
	Odour:	orange
	pH:	approx 8 (1% solution at 20 degrees centigrade)
	Boiling Point/Boiling Range:	Not applicable
	Melting Point/Melting Range:	Not applicable
	Flash Point:	Not determined
	Flammability (Solid, Gas):	Not applicable
	Autoflammability:	Not determined
	Explosive Properties:	Predicted not explosive based on chemical structure.
	Oxidising Properties:	Not determined
	Solubility	- Water solubility: 100% (aqueous product)
		- Fat solubility: Not determined
	Partition coefficient n-octanol/water:	Not determined
	Other Data:	None available
10. STA	ABILITY AND REACTIVITY	
	10.1 Conditions to Auside	Evenesive temperature variations, helpev 0°C or above 45 °C

10.1 Conditions to Avoid:	Excessive temperature variations, below 0°C or above 45 °C
10.2 Materials to Avoid:	Strong acids or alkali compounds may inactivate biological cultures and
	strong oxidising agents.

10.3 Hazardous Decomposition Products:

None anticipated

11. TOXICOLOGICAL INFORMATION

11.1 Acute toxic effects

11.1.1 Ingestion, LD50 Rat oral (mg/kg):	Not determined
11.1.2 Inhalation, LC50 Rat inhalation (mg/l/4h):	Not determined
11.1.3 Skin, LD50 Rat dermal (mg/kg) :	Not determined

11.2 Local effects

11.2.2 Skin irritation 11.2.2 Eye irritation

Not determined Not determined

11.3 Sensitization

Contains Citral, citronellol and limonene that may cause allergic reaction.

The product is an irritant to eyes and skin. Inhalation of a finely divide material may irritate the mucous membrane. The product is formulated using a range of micro-organisms specially selected from the natural environment and that are known to be non-pathogenic to humans, animals or plants. It is advised to cover open wounds when in use.

MATERIAL SAFETY DATA SHEET

In compliance with regulation (EC) n° 1907/2006 (REACH)

Desert Microbial Urinal Cube

12. EC	COLOGICAL INFORMATION	
	12.1 Mobility:	This preparation has high water solubility. Therefore it is likely to distribute predominantly to the aqueous environment.
	12.2 Biodegradability:	The preparation is expected to biodegrade rapidly. However no information on anaerobic biodegradation is available.
	12.3 Accumulation:	Not anticipated to bio accumulate due to high water solubility and hence, biomagnification is not likely.
	12.4 Ecotoxicity:	The preparation is not anticipated to pose any environmental hazard. No data on toxicity specifically to soil organisms, plants and terrestrial animals are available.
	12.5 Other adverse effects:	There is no ozone depletion, photochemical ozone creation or global warming potential. Adverse effects in the sewage treatment plant are not anticipated.
	12.6 Other information:	Class 1 micro-organisms (European Federation of Biotechnology) selected from the natural environment.
13.	DISPOSAL CONSIDERATIONS	
	13.1 Waste from Residues:	Dispose of by incineration, landfill or to drain in accordance with local regulations. Stack gases should be scrubbed.
	13.2 Contaminated Packaging	Dispose of by incineration or landfill in accordance with local regulations.
14.	TRANSPORT INFORMATION No special requirements	
	International Regulations	Land: Not applicable.
		Inland waterways: Not applicable.
		Sea: Not applicable.
	UN classification number:	Air: Not applicable. None
	Local Regulations:	Any relevant local regulations concerning transport should be observed.
15.	REGULATORY INFORMATION	
	EC Regulations:	The preparation is not classified as dangerous according to the criteria laid down in EU Council Directives 67/548/EC (Annex VI of Directive 2001/59/EC) and 1999/45/EEC.
	Classification proposal	
	Symbol	None
	R-phrases:	None
	S-phrases:	S2 Keep out of reach of children

Contains Citral, citronellol and limonene that may cause allergic reaction.

Desert Microbial Urinal Cube

desert

Microbial classification

The preparation is not deemed 'hazardous' according to the requirements of Council Directive 2000/54/EEC. All bacteria contained in this preparation are designated Class 1 according to Council Directive 90/679/EEC (as amended by Council Directive 93/88/EEC) and all other recognized classification systems for micro-organisms.

Labeling according to Regulation (EC) n° 648/2004 (Detergent): to be declared	
---	--

COMPONENT	FUNCTION	QUANTITY (%)
Anionic agent	surfactant	15-30
Perfume		
Citral		0.001-0.01
Limonène	Perfume	0.01-0.1
Citronellol		0.001-0.01

Local Regulations: Any relevant local regulations should be observed.

16. OTHER INFORMATION

R phrases

- R36 Irritating to eyes
- R37 Irritating to respiratory system
- R38 Irritating to skin

Regulation (EC) n° 648/2004 (Detergent)

The surfactants contained in this preparation comply with the biodegradability criteria as laid down in Regulation (EC) 648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

Miscellaneous

LEV: Local Exhaust Ventilation

The information contained is based on our knowledge of the product at the date of publishing. It applies to the product as such. In case of formulation or mixture make sure no new danger appear. Users are advised of possible additional danger when the product is used in applications for which it is not intended to. The user must satisfy himself that the product is entirely suitable.

Version 1 (2008-04-14)