BIO TABS URINAL DRAIN MAINTAINER/ DEODORIZER

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 10/01/2014 Revision date: 10/09/2014 : Version: 1.1

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Trade name : BIO TABS URINAL DRAIN MAINTAINER/DEODORIZER

Synonyms : BlueSphere, BlueDome, BugSphere

Product code : BS-80, BS-110SD, BD-120SD, BD-160MD, BS-130SD, BS-200BD

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.2.1. Relevant identified uses

Main use category : Industrial use,Professional use,Consumer use

Use of the substance/mixture : Toilet Deodorizer, Drain Maintainer

Function or use category : Cleaning/washing agents and additives

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Manufacturer:

Calfarme (Singapore) Pte Ltd Telephone: +65 6556 4111

AMK Techlink

20 Ang Mo Kio Industrial Park 2A 06-18

Singapore 567761

Republic of Singapore

Supplier:

Calfarme Australia Pty Ltd Telephone: +61 (2) 9153 0677

P.O Box 678, Kingsgrove NSW 1480

Unit 4, 10 Doyle Avenue Unanderra NSW 2526.Australia

Tel: 1300 649088

Email: sales@calfarme.com.au Web: www.calfarme.com.au

1.4. Emergency telephone number

Country	Organisation/Company	Address	Emergency number
AUSTRALIA	Queensland Poisons Information Centre Royal Children's Hospital	Herston Road Herston Brisbane	+61 7 363 68 148 131126
AUSTRALIA	NSW Poisons Information Centre Childrens Hospital Westmead	Hawkesbury Road Sydney	+61 2 9845 3969 131126
IRELAND (REPUBLIC OF)	National Poisons Information Centre Beaumont Hospital	Beaumont Hospital Beaumont Road 9 Dublin	: +353 1 8379964
MALAYSIA	National Poisons Centre / WHO Collaborating Centre for drug Information Western-Pacific Region	c/o Universiti Sains Malaysia Penang	1 800 88 90 99 +604 567 0099
SINGAPORE	Drug & poison information centre	Block 1 Basement 1, c/o Department of Emergency Medicine, Singapore General Hospital Outram Road 169608 Singapore	6423 9119
UNITED KINGDOM	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0870 600 6266 (UK only)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute Tox. 4 (Oral) H302

Skin Irrit. 2 H315

Eye Dam. 1 H318

Resp. Sens. 1 H334

Skin Sens. 1 H317

STOT SE 3	H335
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Xn; R22
Xn; R42
Xi; R41
Xi; R37/38
Xi; R43
N; R50/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS05 GHS07 GHS08 GHS09

Signal word (CLP) : Danger

Hazardous ingredients : subtilisin, sodium dodecylbenzenesulfonate

Hazard statements (CLP) :
H302 - Harmful if swallowed
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H318 - Causes serious eye damage
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 - May cause respiratory irritation
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP) :
P261 - Avoid breathing fume, vapours
P264 - Wash hands thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P272 - Contaminated work clothing should not be allowed out of the workplace
P273 - Avoid release to the environment
P280 - Wear eye protection, face protection, protective clothing, protective gloves

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
sodium sulfate	(CAS No) 7757-82-6 (EC no) 231-820-9	40 - 50	Not classified
sodium dodecylbenzenesulfonate	(CAS No) 25155-30-0 (EC no) 246-680-4	10 - 25	Xn; R22 Xi; R41 Xi; R37/38 N; R50
Proprietary Bacteria Spore Blend	(CAS No) N/A	2,5 - 5	Not classified
subtilisin	(CAS No) 9014-01-1 (EC no) 232-752-2 (EC index no) 647-012-00-8	2,5 - 5	Xi; R41 Xi; R37/38 Xn; R42

Name	Product identifier	%	Classification according to Directive 67/548/EEC
(R)-p-mentha-1,8-diene, d-limonene	(CAS No) 5989-27-5 (EC no) 227-813-5 (EC index no) 601-029-00-7	<= 1	R10 Xi; R38 Xi; R43 N; R50/53
citral	(CAS No) 5392-40-5 (EC no) 226-394-6 (EC index no) 605-019-00-3	<= 1	Xi; R38 Xi; R43

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
sodium sulfate	(CAS No) 7757-82-6 (EC no) 231-820-9	40 - 50	Not classified
sodium dodecylbenzenesulfonate	(CAS No) 25155-30-0 (EC no) 246-680-4	10 - 25	Acute Tox. 4 (Oral), H302 STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 Aquatic Acute 1, H400
Proprietary Bacteria Spore Blend	(CAS No) N/A	2,5 - 5	Not classified
subtilisin	(CAS No) 9014-01-1 (EC no) 232-752-2 (EC index no) 647-012-00-8	2,5 - 5	STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334
(R)-p-mentha-1,8-diene, d-limonene	(CAS No) 5989-27-5 (EC no) 227-813-5 (EC index no) 601-029-00-7	<= 1	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
citral	(CAS No) 5392-40-5 (EC no) 226-394-6 (EC index no) 605-019-00-3	<= 1	Skin Irrit. 2, H315 Skin Sens. 1, H317

Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Immediately consult a doctor/medical service. Call a POISON CENTER or doctor/physician. Remove to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER/doctor/physician if you feel unwell.

First-aid measures after skin contact : Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a POISON CENTER/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries after inhalation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye damage.

Symptoms/injuries after ingestion : Swallowing a small quantity of this material will result in serious health hazard.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

No additional information available

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : On land, sweep or shovel into suitable containers. Minimize generation of dust. Store aways from other materials.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. Avoid breathing fumes / vapours. Use only outdoors or in a well-ventilated area.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash skin thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Direct sunlight, Heat sources. Keep container tightly closed.

Incompatible products : Strong bases. Strong acids.

Incompatible materials : Sources of ignition. Direct sunlight.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

subtilisin (9014-01-1)		
Italy - Portugal - USA ACGIH	ACGIH Ceiling (mg/m³)	0,00006 mg/m³
United Kingdom	WEL TWA (mg/m³)	0,00004 mg/m³

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation.

Personal protective equipment : Avoid all unnecessary exposure. Gloves. Safety glasses. Protective clothing. Insufficient ventilation: wear respiratory protection.



Hand protection : Wear protective gloves.

Eye protection : Chemical goggles or safety glasses.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : In case of inadequate ventilation wear respiratory protection.

Other information : Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Solid
Colour	:	Blue, Green
Odour	:	characteristic.
Odour threshold	:	No data available
pH	:	No data available
Relative evaporation rate (butylacetate=1)	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	No data available
Flash point	:	No data available
Self ignition temperature	:	No data available
Decomposition temperature	:	No data available
Flammability (solid, gas)	:	Non flammable
Vapour pressure	:	No data available
Relative vapour density at 20 °C	:	No data available
Relative density	:	No data available
Solubility	:	No data available
Log Pow	:	No data available
Log Kow	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosive properties	:	No data available
Oxidising properties	:	No data available
Explosive limits	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Not established.

10.3. Possibility of hazardous reactions

Not established.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

BIO TABS URINAL DRAIN MAINTAINER/DEODORIZER	
ATE (oral)	500,000 mg/kg bodyweight

(R)-p-mentha-1,8-diene, d-limonene (5989-27-5)	
LD50 oral rat	4400 mg/kg Remarks: Behavioral:Change in motor activity (specific assay). Respiratory disorder Skin and Appendages:
LD50 dermal rat	> 5000 mg/kg
ATE (oral)	4400,000 mg/kg bodyweight

citral (5392-40-5)	
LD50 oral rat	4960 mg/kg Food and Cosmetics Toxicology. Vol. 2, Pg. 327, 1964.
LD50 dermal rabbit	2250 mg/kg Food and Chemical Toxicology. Vol. 25, Pg. 505, 1987.
ATE (oral)	4960,000 mg/kg bodyweight
ATE (dermal)	2250,000 mg/kg bodyweight

subtilisin (9014-01-1)	
LD50 oral rat	3700 mg/kg (Rat)

sodium dodecylbenzenesulfonate (25155-30-0)	
LD50 oral rat	438 mg/kg (Rat)

Skin corrosion/irritation : Causes skin irritation.
Causes skin irritation

Serious eye damage/irritation : Causes serious eye damage.
Causes serious eye damage

Respiratory or skin sensitisation : May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
May cause allergy or asthma symptoms or breathing difficulties if inhaled
May cause an allergic skin reaction

Germ cell mutagenicity : Not classified
Based on available data, the classification criteria are not met

Carcinogenicity : Not classified
Based on available data, the classification criteria are not met

Reproductive toxicity : Not classified
Based on available data, the classification criteria are not met

Specific target organ toxicity (single exposure) : May cause respiratory irritation.
May cause respiratory irritation

Specific target organ toxicity (repeated exposure) : Not classified
Based on available data, the classification criteria are not met

Aspiration hazard : Not classified
Based on available data, the classification criteria are not met

Potential Adverse human health effects and symptoms : Harmful if swallowed.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - water : Very toxic to aquatic life with long lasting effects.

sodium sulfate (7757-82-6)	
LC50 fishes 1	4530 (56 - 13000) mg/l (96h); Hughes, J.S. 1973. Acute Toxicity of Thirty Chemicals to Striped Bass (Morone saxatilis). La.Dep.Wildl.Fish.318-343-2417 :15 p.(Used 963 As Reference); Mount, D.R., D.D. Gulley, J.R. Hockett, T.D. Garrison, and J.M. Evans 1997. Statistical Models to Predict the Toxicity of Major Ions to Ceriodaphnia dubia, Daphnia magna and Pimephales promelas (Fathead Minnows). Environ.Toxicol.Chem. 16(10):2009-2019
LC50 other aquatic organisms 1	3080 (2,22 - 9130) mg/l (48h); Crustaceans; Mount, D.R., D.D. Gulley, J.R. Hockett, T.D. Garrison, and J.M. Evans 1997. Statistical Models to Predict the Toxicity of Major Ions to Ceriodaphnia dubia, Daphnia magna and Pimephales promelas (Fathead Minnows). Environ.Toxicol.Chem. 16(10):2009-2019
EC50 other aquatic organisms 1	3150 mg/l (48h); Crustaceans; Warne, M.S.J., and A.D. Schifko 1999. Toxicity of Laundry Detergent Components to a Freshwater Cladoceran and Their Contribution to Detergent Toxicity. Ecotoxicol.Environ.Saf. 44(2):196-206

(R)-p-mentha-1,8-diene, d-limonene (5989-27-5)	
LC50 fishes 1	96h 0,702 mg/l
EC50 Daphnia 1	48h 69,6 mg/l

subtilisin (9014-01-1)	
LC50 fishes 1	> 100 mg/l (Pisces)

sodium dodecylbenzenesulfonate (25155-30-0)	
LC50 fishes 1	0,99 mg/l (96 h; Pisces)

sodium dodecylbenzenesulfonate (25155-30-0)	
EC50 Daphnia 1	2,19 mg/l (96 h; Daphnia magna)
LC50 fish 2	6,9 mg/l (96 h; Rita rita)
Threshold limit algae 1	0,9 mg/l (96 h; Algae)

12.2. Persistence and degradability

BIO TABS URINAL DRAIN MAINTAINER/DEODORIZER	
Persistence and degradability	Not established.

subtilisin (9014-01-1)	
Persistence and degradability	Biodegradability in water: no data available.

sodium dodecylbenzenesulfonate (25155-30-0)	
Persistence and degradability	Readily biodegradable in water.

12.3. Bioaccumulative potential

BIO TABS URINAL DRAIN MAINTAINER/DEODORIZER	
Bioaccumulative potential	Not established.

subtilisin (9014-01-1)	
Bioaccumulative potential	No bioaccumulation data available.

sodium dodecylbenzenesulfonate (25155-30-0)	
BCF fish 1	286 (Lepomis macrochirus)
BCF fish 2	130 (Leuciscus idus)
Log Pow	0,45 - 1,96
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

Other information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to a licensed waste centre in accordance with local/regional/national/international regulations.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

Not dangerous goods in terms of transport regulations

14.2. UN proper shipping name

Not applicable

14.3. Transport hazard class(es)

Not applicable

14.4. Packing group

Not applicable

14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

No additional information available

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Authorisations and/or restrictions on use (Annex XVII):

3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	(R)-p-mentha-1,8-diene, d-limonene - citral
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.	(R)-p-mentha-1,8-diene, d-limonene

Contains no REACH candidate substance

15.1.2. National regulations

Water hazard class (WGK) : 2 - hazardous to water

WGK remark : Classification water polluting based on the components in compliance with Verwaltungsvorschrift wassergefährdender Stoffe (VwVwS) of 27 July 2005 (Anhang 4)

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixturejs, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Other information : None.

Full text of R-, H- and EUH-phrases::

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — AcuteHazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
Resp. Sens. 1	Sensitisation — Respiratory, category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H226	Flammable liquid and vapour
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R10	Flammable
R22	Harmful if swallowed
R37/38	Irritating to respiratory system and skin

R38	Irritating to skin
R41	Risk of serious damage to eyes
R42	May cause sensitization by inhalation
R43	May cause sensitisation by skin contact
R50	Very toxic to aquatic organisms
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product