



BIO PLUS Multi-Purpose Biological Cleaner and Deodoriser

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 10/01/2014

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Version: 1.1

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

1.1. Product identifier

Product form : Mixture
Product name : BIO PLUS Multi-Purpose Biological Cleaner and Deodoriser

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
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
AMK Techlink
20 Ang Mo Kio Industrial Park 2A 06-18
Singapore 567761
Republic of Singapore

Telephone: +65 6556 4111

Supplier:

Calfarme Australia Pty Ltd
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

Telephone: +61 (2) 9153 0677

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 |
| 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]

Skin Irrit. 2 H315
Eye Dam. 1 H318
Resp. Sens. 1 H334

Full text of H-phrases: see section 16

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

Xn; R42
Xi; R41
Xi; R38

Full text of R-phrases: see section 16

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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

GHS08

Signal word (CLP) :

Danger

Hazardous ingredients :

alkylpolyglycoside

Hazard statements (CLP) :

H315 - Causes skin irritation
H318 - Causes serious eye damage
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (CLP) :

P261 - Avoid breathing fume, vapours
P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, face protection, protective clothing, protective gloves
P285 - In case of inadequate ventilation wear respiratory protection
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P304+P341 - IF INHALED: if breathing is difficult, remove victim 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

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 C10-16 pareth-2 sulfate | (CAS No) 68585-34-2 | 10 - 20 | Xi; R36/38 |
| alkylpolyglycoside | (CAS No) 68515-73-1 (EC no) 500-220-1 | 10 - 20 | Xi; R41 |
| 2-propanol | (CAS No) 67-63-0 (EC no) 200-661-7 (EC index no) 603-117-00-0 | <= 5 | F; R11 Xi; R36 R67 |
| subtilisin | (CAS No) 9014-01-1 (EC no) 232-752-2 (EC index no) 647-012-00-8 | <= 2,5 | Xi; R41 Xi; R37/38 Xn; R42 |

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|--------------------------------|---|---------|---|
| sodium C10-16 pareth-2 sulfate | (CAS No) 68585-34-2 | 10 - 20 | Skin Irrit. 2, H315 Eye Irrit. 2, H319 |
| alkylpolyglycoside | (CAS No) 68515-73-1 (EC no) 500-220-1 | 10 - 20 | Eye Dam. 1, H318 |
| 2-propanol | (CAS No) 67-63-0 (EC no) 200-661-7 (EC index no) 603-117-00-0 | <= 5 | Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336 |
| subtilisin | (CAS No) 9014-01-1 (EC no) 232-752-2 (EC index no) 647-012-00-8 | <= 2,5 | STOT SE 3, H335 Skin Irrit. 2, H315 Eye Dam. 1, H318 Resp. Sens. 1, H334 |

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



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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.
- 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.

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.
- Symptoms/injuries after skin contact : Causes skin irritation.
- Symptoms/injuries after eye contact : Causes serious eye damage.

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.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away 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.
- Hygiene measures : Wash skin thoroughly after handling.

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 closed when not in use.

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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

| 2-propanol (67-63-0) | | |
|------------------------------|---|------------------------|
| Belgium | Limit value (mg/m ³) | 500 mg/m ³ |
| Belgium | Limit value (ppm) | 200 ppm |
| Belgium | Short time value (mg/m ³) | mg/m ³ |
| Belgium | Short time value (ppm) | 400 ppm |
| France | VLE (mg/m ³) | 980 mg/m ³ |
| France | VLE (ppm) | 400 ppm |
| Germany | TRGS 900 Occupational exposure limit value (mg/m ³) | 0.025 E |
| Italy - Portugal - USA ACGIH | ACGIH TWA (ppm) | 200 ppm |
| Italy - Portugal - USA ACGIH | ACGIH STEL (ppm) | 200 ppm |
| United Kingdom | WEL TWA (mg/m ³) | 999 mg/m ³ |
| United Kingdom | WEL TWA (ppm) | 400 ppm |
| United Kingdom | WEL STEL (mg/m ³) | 1250 mg/m ³ |
| United Kingdom | WEL STEL (ppm) | 500 ppm |

| subtilisin (9014-01-1) | | |
|------------------------------|------------------------------------|---------------------------|
| Italy - Portugal - USA ACGIH | ACGIH Ceiling (mg/m ³) | 0,00006 mg/m ³ |
| United Kingdom | WEL TWA (mg/m ³) | 0,00004 mg/m ³ |

8.2. Exposure controls

Appropriate engineering controls : Provide adequate general and local exhaust ventilation.
 Personal protective equipment : Avoid all unnecessary exposure. Gloves. In case of splash hazard: safety glasses. Protective clothing. Mist formation: aerosol mask.



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 : Liquid
 Colour : Blue.
 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



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| | |
|----------------------------------|---------------------|
| 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 : Not classified

| sodium C10-16 pareth-2 sulfate (68585-34-2) | |
|---|--|
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| 2-propanol (67-63-0) | |
| LD50 oral rat | 5045 mg/kg (5840 mg/kg bodyweight; Rat; Rat; Experimental value,5840 mg/kg bodyweight; Rat; Rat; Experimental value) |
| LD50 dermal rabbit | 12870 mg/kg (16.4; Rabbit; Rabbit; Experimental value,16.4; Rabbit; Rabbit; Experimental value) |
| LC50 inhalation rat (mg/l) | 73 mg/l/4h (Rat) |
| subtilisin (9014-01-1) | |
| LD50 oral rat | 3700 mg/kg (Rat) |
| alkylpolyglycoside (68515-73-1) | |
| LD50 oral rat | > 2000 mg/kg |
| LD50 dermal rat | > 2000 mg/kg |

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

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



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| | | |
|---|---|---|
| Respiratory or skin sensitisation | : | May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| 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) | : | Not classified Based on available data, the classification criteria are not met |
| 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 | : | Based on available data, the classification criteria are not met. |

SECTION 12: Ecological information

12.1. Toxicity

| sodium C10-16 pareth-2 sulfate (68585-34-2) | |
|--|---|
| EC50 Daphnia 1 | 48h 1 (1 - 10) mg/l |
| EC50 other aquatic organisms 1 | 72h 1 (1 - 10) mg/l Algae |
| 2-propanol (67-63-0) | |
| LC50 fishes 1 | 4200 mg/l (96 h; Rasbora heteromorpha; Flow-through system) |
| EC50 Daphnia 1 | > 10000 mg/l (48 h; Daphnia magna) |
| LC50 fish 2 | 9640 mg/l (96 h; Pimephales promelas; Lethal) |
| EC50 Daphnia 2 | 13299 mg/l (48 h; Daphnia magna) |
| Threshold limit algae 1 | > 1000 mg/l (72 h; Scenedesmus subspicatus; Growth rate) |
| Threshold limit algae 2 | 1800 mg/l (72 h; Algae; Cell numbers) |
| subtilisin (9014-01-1) | |
| LC50 fishes 1 | > 100 mg/l (Pisces) |
| alkylpolyglycoside (68515-73-1) | |
| LC50 fishes 1 | 126 mg/l 96h |
| EC50 Daphnia 1 | > 100 mg/l 48h (OECD 202) |
| EC50 other aquatic organisms 1 | 27,22 mg/l 72h; Algae; Scenedesmus subspicatus |

12.2. Persistence and degradability

| BIO PLUS Multi-Purpose Biological Cleaner and Deodoriser | |
|---|--|
| Persistence and degradability | Not established. |
| 2-propanol (67-63-0) | |
| Persistence and degradability | Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. No (test)data on mobility of the substance available. |
| Biochemical oxygen demand (BOD) | 1,19 g O ² /g substance |
| Chemical oxygen demand (COD) | 2,23 g O ² /g substance |
| ThOD | 2,40 g O ² /g substance |
| BOD (% of ThOD) | 0,49 % ThOD |
| subtilisin (9014-01-1) | |
| Persistence and degradability | Biodegradability in water: no data available. |
| alkylpolyglycoside (68515-73-1) | |
| Persistence and degradability | Readily biodegradable in water. |



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12.3. Bioaccumulative potential

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Bioaccumulative potential Not established.

2-propanol (67-63-0)

Log Pow 0,05 (Experimental value)

Bioaccumulative potential Low potential for bioaccumulation (Log Kow < 4).

subtilisin (9014-01-1)

Bioaccumulative potential No bioaccumulation data available.

alkylpolyglycoside (68515-73-1)

Log Pow -0,07 40 °C

12.4. Mobility in soil

2-propanol (67-63-0)

Surface tension 0,021 N/m (25 °C)

alkylpolyglycoside (68515-73-1)

Log Koc 1,7 25 °C

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

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



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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 | BIO PLUS Multi-Purpose Biological Cleaner and Deodoriser - sodium C10-16 parath-2 sulfat - 2-propanol - alkympolyglycoside |
| 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. | 2-propanol |

Contains no REACH candidate substance

15.1.2. National regulations

| | |
|--------------------------|--|
| Water hazard class (WGK) | : 1 - slightly 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 mixtures, 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::

| | |
|---------------|--|
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Flam. Liq. 2 | Flammable liquids, Category 2 |
| Resp. Sens. 1 | Sensitisation — Respiratory, category 1 |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Narcosis |
| STOT SE 3 | Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation |
| H225 | Highly flammable liquid and vapour |
| H315 | Causes skin irritation |
| H318 | Causes serious eye damage |
| H319 | Causes serious eye irritation |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| H335 | May cause respiratory irritation |
| H336 | May cause drowsiness or dizziness |
| R11 | Highly flammable |
| R36 | Irritating to eyes |
| R36/38 | Irritating to eyes and skin |
| 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 |
| R67 | Vapours may cause drowsiness and dizziness |
| F | Highly flammable |
| 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