# PURITI ENZYME BOOST

Safety Data Sheet

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2020/878
Date first issue: 07/02/2013 Review date: 16/11/2020 Supersedes version of: 22/10/2019 Version: 4.0

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

### 1.1. Product identifier

Product form : Mixture

Product name : PURITI ENZYME BOOST

Product code : 471

Type of product : Detergent

Product group : Mixture

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

#### 1.2.1. Relevant identified uses

Industrial/Professional use spec : Industrial
For professional use only

Use of the substance/mixture : Cleaning/washing agents and additives
Enzymatic detergent

#### 1.2.2. Uses advised against

No additional information available

### 1.3. Details of the supplier of the safety data sheet

Clover Chemicals Ltd
Clover House
Macclesfield Road
SK23 7DQ Whaley Bridge - United Kingdom
T 01663 733114 - F 01663 733115
info@cloverchemicals.com - www.cloverchemicals.com

### 1.4. Emergency telephone number

| Country | Official advisory body | Address | Emergency number | Comment |
|---|---|---|---|---|
| Ireland | National Poisons Information Centre<br>Beaumont Hospital | PO Box 1297<br>Beaumont Road<br>9 Dublin | +353 1 809 2566<br>(Healthcare professionals-24/7)<br>+353 1 809 2166 (public, 8am - 10pm, 7/7) | |
| United Kingdom | National Poisons Information Service (Birmingham Centre)<br>City Hospital | Dudley Road<br>B18 7QH Birmingham | 0344 892 0111 | |

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Eye Dam. 1 H318

Full text of hazard classes and H-statements : 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

CLP Signal word : Danger

Contains : Isotridecanol, ethoxylated

Hazard statements (CLP) : H318 - Causes serious eye damage.

Precautionary statements (CLP) : P102 - Keep out of reach of children.
P264 - Wash hands thoroughly after handling.
P280 - Wear protective gloves, eye protection.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P362 - Take off contaminated clothing.

EUH-statements : EUH208 - Contains Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

### 2.3. Other hazards

This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII

This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

| Component | |
|---|---|
| Isotridecanol, ethoxylated (69011-36-5) | PBT: not relevant – no registration required<br>vPvB: not relevant – no registration required |

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

| Name | Product identifier | % | Classification according to Regulation (EC) No. 1272/2008 [CLP] |
|---|---|---|---|
| Isotridecanol, ethoxylated | (CAS-no) 69011-36-5<br>(Einecs nr) 931-138-8<br>(EG annex nr) /<br>(REACH-no) Exempted | 10 – 30 | Acute Tox. 4 (Oral), H302<br>(ATE=500 mg/kg)<br>Eye Dam. 1, H318 |
| Propane-1,2-diol<br>substance with national workplace exposure limit(s) (GB) | (CAS-no) 57-55-6<br>(Einecs nr) 200-338-0 | 10 – 30 | Not classified |
| Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) | (CAS-no) 55965-84-9<br>(Einecs nr) 611-341-5<br>(EG annex nr) 613-167-00-5<br>(REACH-no) 01-2120764691-48 | < 0.1 | Acute Tox. 2 (Inhalation), H330<br>Acute Tox. 2 (Dermal), H310<br>(ATE=78 mg/kg bodyweight)<br>Acute Tox. 3 (Oral), H301<br>(ATE=64 mg/kg bodyweight)<br>Skin Corr. 1C, H314<br>Eye Dam. 1, H318<br>Skin Sens. 1A, H317<br>Aquatic Acute 1, H400 (M=100)<br>Aquatic Chronic 1, H410 (M=100) |

| Specific concentration limits: | | |
|---|---|---|
| **Name** | **Product identifier** | **Specific concentration limits** |
| Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) | (CAS-no) 55965-84-9<br>(Einecs nr) 611-341-5<br>(EG annex nr) 613-167-00-5<br>(REACH-no) 01-2120764691-48 | ( 0.0015 ≤C ≤ 100) Skin Sens. 1A, H317<br>( 0.06 ≤C < 0.6) Eye Irrit. 2, H319<br>( 0.06 ≤C < 0.6) Skin Irrit. 2, H315<br>( 0.6 ≤C ≤ 100) Eye Dam. 1, H318<br>( 0.6 ≤C ≤ 100) Skin Corr. 1C, H314 |

Full text of H-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

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

Inhalation : Allow affected person to breathe fresh air. Allow the victim to rest.

Skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.

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/doctor.

Ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

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

Acute effects inhalation : Inhalation may cause irritation, cough, shortness of breath.

Acute effects skin : Irritation. Red skin.

Acute effects eyes : Causes serious eye damage. Redness.

Acute effects oral route : Burns or irritation of the linings of the mouth, throat, and gastrointestinal tract.

### 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 : Water.

### 5.2. Special hazards arising from the substance or mixture

Hazardous decomposition products in case of fire : Toxic fumes may be released. Carbon dioxide. Carbon monoxide.

### 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 the 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.

Hygiene measures : Wash hands, forearms and face thoroughly after handling.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.

Incompatible materials : Direct sunlight.

Packaging materials : polyethylene.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

| **Propane-1,2-diol (57-55-6)** | |
|---|---|
| **United Kingdom - Occupational Exposure Limits** | |
| Local name | Propane-1,2-diol |
| WEL TWA (OEL TWA) [1] | 10 mg/m³ particulates<br>474 mg/m³ total vapour and particulates |
| WEL TWA (OEL TWA) [2] | 150 ppm total vapour and particulates |

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

No additional information available

#### 8.2.2. Personal protection equipment

**Personal protective equipment:**

Avoid all unnecessary exposure.

#### 8.2.2.1. Eye and face protection

| **Eye protection:** |
|---|
| Chemical goggles or safety glasses |

#### 8.2.2.2. Skin protection

| **Hand protection:** |
|---|
| Wear protective gloves. |

#### 8.2.2.3. Respiratory protection

No additional information available

#### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

**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 | : Colourless. |
| Physical state/form | : Liquid. |
| Odour | : odourless. |
| Odour threshold | : Not available |
| Melting point/range | : 0 °C |
| Freezing point | : Not available |
| Boiling point/Boiling range | : 100 °C |
| Flammability | : Non flammable. |
| Explosive limits | : Not available |
| Lower explosive limit (LEL) | : Not available |
| Upper explosive limit (UEL) | : Not available |
| Flash point | : Not available |
| Autoignition temperature | : Not available |
| Decomposition temperature | : Not available |
| pH | : 8.5 – 9 |
| Viscosity, kinematic | : Not available |
| Solubility | : Soluble in water. |
| Partition coefficient n-octanol/water (Log Kow) | : Not available |
| Vapour pressure | : Not available |
| Vapour pressure at 50 °C | : Not available |
| Density | : Not available |
| Relative density | : 1.026 |
| Relative vapour density at 20 °C | : Not available |
| Particle size | : Not applicable |
| Particle size distribution | : Not applicable |
| Particle shape | : Not applicable |

| | |
|---|---|
| Particle aspect ratio | : Not applicable |
| Particle aggregation state | : Not applicable |
| Particle agglomeration state | : Not applicable |
| Particle specific surface area | : Not applicable |
| Particle dustiness | : Not applicable |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

| | |
|---|---|
| Acute toxicity (oral) | : Not classified |
| Acute toxicity (dermal) | : Not classified |
| Acute toxicity (inhalation) | : Not classified |

| **Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9)** | |
|---|---|
| LD50 oral rat | 64 mg/kg |
| LD50 dermal rat | 87.12 mg/kg |
| LD50 dermal rabbit | 78 mg/kg |
| LC50 Inhalation - Rat | 0.33 mg/l/4h |
| LC50 Inhalation - Rat (Dust/Mist) | 0.33 mg/l/4h |

| **Isotridecanol, ethoxylated (69011-36-5)** | |
|---|---|
| LD50 oral rat | > 300 (≤ 2000) mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |

| **Propane-1,2-diol (57-55-6)** | |
|---|---|
| LD50 oral rat | 22000 mg/kg |
| LD50 dermal rabbit | > 2000 mg/kg |
| LC50 Inhalation - Rat | > 317 mg/l |

| | |
|---|---|
| Skin corrosion/irritation | : Not classified<br>pH: 8.5 – 9 |
| Additional information | : Based on available data, the classification criteria are not met |
| Serious eye damage/irritation | : Causes serious eye damage.<br>pH: 8.5 – 9 |
| Respiratory or skin sensitisation | : Not classified |
| Additional information | : Based on available data, the classification criteria are not met |

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

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

STOT-single exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

| Isotridecanol, ethoxylated (69011-36-5) | |
|---|---|
| NOAEL (oral, rat) | > 250 mg/kg bodyweight |

STOT-repeated exposure : Not classified
Additional information : Based on available data, the classification criteria are not met

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

### 11.2. Information on other hazards

#### 11.2.1. Endocrine disrupting properties

#### 11.2.2 Other information

Potential adverse human health effects and symptoms : Based on available data, the classification criteria are not met

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

| Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9) | |
|---|---|
| LC50 - Fish [1] | 0.19 mg/l Rainbow trout |
| LC50 - Fish [2] | zonnebaars |
| EC50 - Crustacea [1] | 0.16 mg/l |
| EC50 - Other aquatic organisms [1] | 0.126 mg/l waterflea |
| EC50 - Other aquatic organisms [2] | 0.003 mg/l |
| EC50 72h - Algae [1] | 0.027 mg/l |
| ErC50 algae | 0.003 mg/l Skeletonema costatum |
| ErC50 other aquatic plants | 0.018 mg/l selenastrum capricornutum |
| NOEC chronic fish | 0.05 mg/l |
| NOEC chronic crustacea | 0.1 mg/l |
| NOEC chronic algae | 0.0014 mg/l |

| Isotridecanol, ethoxylated (69011-36-5) | |
|---|---|
| LC50 - Fish [1] | > 1 mg/l |
| EC50 - Crustacea [1] | > 1 mg/l |
| ErC50 algae | 1 – 10 mg/l |

| Propane-1,2-diol (57-55-6) | |
|---|---|
| LC50 - Fish [1] | 40613 mg/l |
| EC50 - Crustacea [1] | 43500 mg/l |
| ErC50 algae | 19000 mg/l |
| ErC50 other aquatic plants | 19100 mg/l |
| NOEC (acute) | 20000 mg/l |

**12.2. Persistence and degradability**

| PURITI ENZYME BOOST | |
|---|---|
| Persistence and degradability | Biodegradable. The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No. 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. |

| Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9) | |
|---|---|
| Persistence and degradability | t1/2 anaëroob = 0,2d. t 1/2 aëroob = 0,38 - 1,3d. 2-methyl-2H-isothiazool-3-on: t1/2 aëroob = 0,38 - 1,4d. |

| Isotridecanol, ethoxylated (69011-36-5) | |
|---|---|
| Persistence and degradability | Readily biodegradable, according to appropriate OECD test. Not established. |

| Propane-1,2-diol (57-55-6) | |
|---|---|
| Biodegradation | 81.7 % |

**12.3. Bioaccumulative potential**

| PURITI ENZYME BOOST | |
|---|---|
| Bioaccumulative potential | No bioaccumulation. |

| Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1) (55965-84-9) | |
|---|---|
| Log Pow | 0.4 |

| Isotridecanol, ethoxylated (69011-36-5) | |
|---|---|
| Bioaccumulative potential | No bioaccumulation. Not established. |

| Propane-1,2-diol (57-55-6) | |
|---|---|
| Bioconcentration factor (BCF REACH) | 0.09 |

**12.4. Mobility in soil**

| Propane-1,2-diol (57-55-6) | |
|---|---|
| Surface tension | 71.6 mN/m |

**12.5. Results of PBT and vPvB assessment**

| PURITI ENZYME BOOST |
|---|
| This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII |
| This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII |

| Component | |
|---|---|
| Isotridecanol, ethoxylated (69011-36-5) | PBT: not relevant – no registration required<br>vPvB: not relevant – no registration required |

**12.6. Endocrine disrupting properties**

No additional information available

### 12.7. Other adverse effects

Additional information : Avoid release to the environment.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Product/Packaging disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Waste / unused products : Avoid release to the environment.

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

| ADR | IMDG | IATA |
|---|---|---|
| **14.1. UN number or ID number** | | |
| Not regulated | Not regulated | Not regulated |
| **14.2. UN proper shipping name** | | |
| Not regulated | Not regulated | Not regulated |
| **14.3. Transport hazard class(es)** | | |
| Not regulated | Not regulated | Not regulated |
| **14.4. Packing group** | | |
| Not regulated | Not regulated | Not regulated |
| **14.5. Environmental hazards** | | |
| Not regulated | Not regulated | Not regulated |
| No supplementary information available | | |

### 14.6. Special precautions for user

**Overland transport**

Not regulated

**Transport by sea**

Not regulated

**Air transport**

Not regulated

### 14.7. Maritime transport in bulk according to IMO instruments

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**

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

| Detergent Regulation (648/2004/EC): Labelling of contents: | |
|---|---|
| **Component** | **%** |
| non-ionic surfactants | 15-30% |
| SUBTILISIN | |
| Amylase, alpha | |
| LIPASE | |
| METHYLCHLOROISOTHIAZOLINONE (AND) METHYLISOTHIAZOLINONE | |

**15.1.2. National regulations**

No additional information available

### 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 H- and EUH-statements:** | |
|---|---|
| Acute Tox. 2 (Dermal) | Acute toxicity (dermal), Category 2 |
| Acute Tox. 2 (Inhalation) | Acute toxicity (inhal.), Category 2 |
| Acute Tox. 3 (Oral) | Acute toxicity (oral), Category 3 |
| Acute Tox. 4 (Oral) | Acute toxicity (oral), Category 4 |
| Aquatic Acute 1 | Hazardous to the aquatic environment — Acute Hazard, Category 1 |
| Aquatic Chronic 1 | Hazardous to the aquatic environment — Chronic Hazard, Category 1 |
| Eye Dam. 1 | Serious eye damage/eye irritation, Category 1 |
| Eye Irrit. 2 | Serious eye damage/eye irritation, Category 2 |
| Skin Corr. 1C | Skin corrosion/irritation, Category 1, Sub-Category 1C |
| Skin Irrit. 2 | Skin corrosion/irritation, Category 2 |
| Skin Sens. 1A | Skin sensitisation, category 1A |
| H301 | Toxic if swallowed. |
| H302 | Harmful if swallowed. |
| H310 | Fatal in contact with skin. |
| H314 | Causes severe skin burns and eye damage. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H318 | Causes serious eye damage. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H400 | Very toxic to aquatic life. |
| H410 | Very toxic to aquatic life with long lasting effects. |
| EUH208 | Contains Mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction. |

| **Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:** | | |
|---|---|---|
| Eye Dam. 1 | H318 | Calculation method |

Safety Data Sheet (SDS), EU

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.