

# Safety Data Sheet

according to 1907/2006/EC, Article 31

Date of issue: 22.04.2009

Revision: 22.04.2009

## 1 Identification of substance:

- **Product details:**
- **Trade name:** Dismoclean® twin zyme
- **SAP-Code:** EN R10478
- **Application of the substance / the preparation** Cleaning material/ Detergent
- **Manufacturer/Supplier:**  
BODE Chemie GmbH  
Melanchthonstraße 27  
D-22525 Hamburg (Germany)  
Tel.: +49 (0)40 / 54 00 60
- **Informing department:**  
KundenService-SiDa@bode-chemie.de
- **Emergency information:**  
Giftnotruf Göttingen (Germany)  
24h-Tel.: +49 (0)551 / 1 92 40

## 2 Hazards identification

- **Hazard designation:**



Xn Harmful

- **Information pertaining to particular dangers for man and environment**  
The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.  
R 42 May cause sensitisation by inhalation.
- **Classification system**  
The classification is in line with current EC lists. It is expanded, however, by information from technical literature and by information furnished by supplier companies.

## 3 Composition/information on ingredients

- **Chemical characterization**
- **Description:** Mixture of the substances listed below with harmless additions.

### · **Dangerous components:**

	CAS 9014-01-1 Protease	Xn,  Xi; R 36/38-42	5-10%
CAS: 9000-90-2 EINECS: 232-565-6	Amylase, alpha-	Xn; R 42	1-5%
CAS: 10043-35-3 EINECS: 233-139-2	boric acid	T; R 60-61	1-5%

### · **Regulation (EC) No 648/2004 on detergents / Labelling for contents**

non-ionic surfactants	15 - 30%
enzymes	

- **Additional information** For the wording of the listed risk phrases refer to section 16.

## 4 First aid measures

- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact** Instantly rinse with water.

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- **After eye contact** Rinse opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**  
Rinse out mouth and then drink plenty of water.  
Do not induce vomiting; instantly call for medical help.

### 5 Fire fighting measures

- **Suitable extinguishing agents**  
CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **Protective equipment:** No special measures required.

### 6 Accidental release measures

- **Person-related safety precautions:** Not required.
- **Measures for environmental protection:**  
Do not allow product to reach sewage system or water bodies.  
Dilute with much water.
- **Measures for cleaning/collecting:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of contaminated material as waste according to item 13.  
Ensure adequate ventilation.

### 7 Handling and storage

- **Handling**
- **Information for safe handling:**  
Keep containers tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and containers:** Store only in the original container.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Protect from frost.  
Protect from heat and direct sunlight.  
Keep container tightly sealed.

### 8 Exposure controls and personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Components with critical values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the compilation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures**  
The usual precautionary measures should be adhered to in handling the chemicals.  
Keep away from foodstuffs, beverages and food.  
Instantly remove any soiled and impregnated garments.  
Wash hands during breaks and at the end of the work.

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- Avoid contact with the eyes and skin.
- **Breathing equipment:** Use breathing protection in case of insufficient ventilation.
  - **Protection of hands:**  
Protective gloves.  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Only use chemical-protective gloves with CE-labelling of category 3.  
Check protective gloves prior to each use for their proper condition.  
After use of gloves apply skin-cleaning agents and skin cosmetics.
  - **Material of gloves**
    1. Nitrile rubber, NBR
    2. Butyl rubber, BR
 Recommended thickness of the material: 1. 0,6 mm / 2. 0,7 mm mm
  - **As protection from splashes gloves made of the following materials are suitable:**
    1. Nitrile rubber, NBR
    2. Butyl rubber, BR
  - **Eye protection:** Tightly sealed safety glasses.
  - **Body protection:** Light weight protective clothing

### 9 Physical and chemical properties:

#### · General Information

<b>Form:</b>	fluid
<b>Colour:</b>	yellow
<b>Smell:</b>	Recognizable

#### · Change in condition

**Melting point/Melting range:** not determined  
**Boiling point/Boiling range:** 100°C

· **Flash point:** Not applicable

· **Self-inflammability:** product is not selfigniting

· **Danger of explosion:** product is not explosive

· **Density at 20°C** 1 g/cm<sup>3</sup>

#### · Solubility in / Miscibility with

**Water:** partly miscible

· **pH-value (10 g/l) at 20°C:** 7

### 10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Dangerous reactions** No dangerous reactions known.
- **Dangerous products of decomposition:** No dangerous decomposition products known.

### 11 Toxicological information

#### · Acute toxicity:

#### · LD/LC50 values that are relevant for classification:

Oral	LD50	>5000 mg/kg (Rat)
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- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritant effect.
- **Sensitization:** Sensitization possible by inhalation.
- **Additional toxicological information:**  
The product shows the following dangers according to the calculation method of the General EC Classification Guidelines for Preparations as issued in the latest version:  
Harmful
- **Sensitisation** May cause sensitisation by inhalation.

### 12 Ecological information:

- **Information about elimination (persistence and degradability):**
- **Other information:**  
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.
- **Additional ecological information:** -

### 13 Disposal considerations

- **Product:**
- **Recommendation**  
Must not be disposed of together with household garbage. Do not allow product to reach sewage system. Must be specially treated under adherence to official regulations.
- **Uncleaned packagings:**
- **Recommendation:**  
Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning.
- **Recommended cleaning agent:** Water, if necessary with cleaning agent.

### 14 Transport information

- **Land transport ADR/RID and GGVS/GGVE (cross-border/domestic)**
- **ADR/RID-GGVS/E Class:** -
- **Maritime transport IMDG/GGVSea:**
- **IMDG/GGVSea Class:** -
- **Air transport ICAO-TI and IATA-DGR:**
- **ICAO/IATA Class:** -

- **Transport/Additional information:** Not dangerous according to the above specifications.

### 15 Regulatory information

- **Designation according to EC guidelines:**  
The product has been classified and labelled in accordance with EC Directives / Ordinance on Hazardous Materials (GefStoffV).

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**· Code letter and hazard designation of product:***Xn Harmful***· Hazard-determining components of labelling:***CAS 9014-01-1 Protease  
Amylase, alpha-***· Risk phrases:***42 May cause sensitisation by inhalation.***· Safety phrases:***23 Do not breathe fumes/aerosol.**45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).***16 Other information:**

*These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.*

**· Relevant R-phrases***36/38 Irritating to eyes and skin.**42 May cause sensitisation by inhalation.**60 May impair fertility.**61 May cause harm to the unborn child.***· \* Data compared to the previous version altered.**