

**SECTION 1. Identification of the substance/mixture and of the company/enterprise**

## 1.1. Product identifier

Product name : ENDOZYM AMG  
Product code: refer to sales department

## 1.2. Relevant identified uses of the substance or mixture and not recommended uses

Enzyme preparations  
Industrial Manufacturing[SU3], Manufacture of food products[SU4], Public domain (administration, education, entertainment, services, craftsmen)[SU22]  
Process aid for food-limited use  
Not recommended uses  
Do not use for purposes other than those listed

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

AEB SpA - Via Vittorio Arici 104 25134 S.Polo Brescia (BS) Italy Tel. +39.030.2307.1 Fax +39.030.2307281

Email: [info@aeb-group.com](mailto:info@aeb-group.com) - Internet: [www.aeb-group.com](http://www.aeb-group.com)

Email tecnico competente/technical dept.: [sds@aeb-group.com](mailto:sds@aeb-group.com)

## 1.4. Emergency telephone number

Centralino/Switchboard +39.030.2307.1 - (h 8.30-12.00 13.30-18.00)

**SECTION 2. Hazards identification**

## 2.1. Classification of the substance or mixture

## 2.1.1 Classification according to Regulation (EC) No 1272/2008:

Pictograms:

GHS08

Hazard Class and Category Code(s):

Resp. Sens. 1

Hazard statement Code(s):

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

## 2.1.2 Classification according to Directive 1999/45/EEC:

Classification:

Xn; R42

Nature of special risks attributed:

R42 - May cause sensitization by inhalation.

The product, if inhaled, can cause sensitization.

## 2.2. Label elements

Labelling according to Regulation (EC) No 1272/2008:

Pictogram, Signal Word Code(s):

GHS08 - Danger

Hazard statement Code(s):

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements:



**Prevention**

- P261 - Avoid breathing spray.
- P285 - In case of inadequate ventilation wear respiratory protection.

**Response**

- P304+P341 - IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P342+P311 - If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**Disposal**

- P501 - Dispose of contents/container to an approved waste disposal plant.

**Contains:**

Amyloglucosidase from Aspergillus Niger

2.3. Other hazards

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

The use of this chemical agent involves the obligation of "risk assessment" by the employer in accordance with the provisions of Dlgs n. 81. April 9, 2008. Workers exposed to this chemical agent should not be subject to health surveillance if the results of the risk assessment show that, depending on the type and quantity of dangerous chemical agent and method and frequency of exposure to the agent, there is only a "moderate Risk" for the health and safety of workers and that the measures laid down in the Decree are sufficient to reduce the risk.

**SECTION 3. Composition/information on ingredients**

3.1 Substances

Irrilevant

3.2 Mixtures

Refer to paragraph 16 for full text of risk phrases and hazard statements

Substance	Concentration	Classification	Index	CAS	EINECS	REACH
Amyloglucosidase from Aspergillus Niger	100%	Xn; R42 Resp. Sens. 1, H334	647-016-00-X	9032-08-0	237-877-2	01-2119480 439-28-XXX X

**SECTION 4. First aid measures**

4.1. Description of first aid measures

**Inhalation:**

Ventilate the area. Move immediately the contaminated patient from the area and keep him at rest in a well ventilated area. If you feel unwell seek medical advice.

**Direct contact with skin (of the pure product):**

Take off immediately contaminated clothing.

Wash immediately with plenty of running water and possibly with soap, the areas of the body that have, or are only suspected to have, come in contact with the product.

**Direct contact with eyes (of the pure product):**

Do not use eye drops or ointments of any kind before the examination or advice from an oculist.

**Ingestion:**

Not hazardous. It's possible to give activated charcoal in water or medicinal mineral vaseline oil.

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

No data available.

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

If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

### SECTION 5. Firefighting measures

#### 5.1. Extinguishing media

Suggested extinguishing media:

Water spray, CO<sub>2</sub>, foam, dry chemical, depending on the materials involved in the fire.

Extinguishing media to avoid:

Water jets. Use water jets only to cool the surfaces of the containers exposed to fire.

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

No data available.

#### 5.3. Advice for firefighters

Use protection for the breathing apparatus

Safety helmet and full protective clothing.

The water spray can be used to protect the people involved in the extinction.

You may also use self-contained breathing apparatus, especially when working in confined and poorly ventilated areas and if you use halogenated extinguishers (Halon 1211 fluobrene, Solkan 123, NAF, etc...)

Keep containers cool with water spray

### SECTION 6. Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1 For non-emergency personnel:

Leave the area surrounding the spill or release. Do not smoke

Wear mask, gloves and protective clothing.

##### 6.1.2 For emergency responders:

Wear mask, gloves and protective clothing.

Eliminate all unguarded flames and possible sources of ignition. No smoking.

Provide a sufficient ventilation.

Evacuate the danger area and, in case, consult an expert.

#### 6.2. Environmental precautions

Contain spills with earth or sand.

If the product has entered a watercourse, sewers or has contaminated soil or vegetation, notify the authorities.

Dispose of the waste material in compliance with the regulations

#### 6.3. Methods and material for containment and cleaning up

##### 6.3.1 Containment:

Rapidly recover the product, wear a mask and protective clothing

Recover the product for reuse, if possible, or for removal. Possibly absorb it with inert material.

Prevent it from entering the sewer system.

##### 6.3.2 Cleaning up:

After wiping up, wash with water the area and materials involved

##### 6.3.3 Other information:

None in particular.

#### 6.4. Reference to other sections

Refer to paragraphs 8 and 13 for more information

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**SECTION 7. Handling and storage**

## 7.1. Precautions for safe handling

Avoid contact and inhalation of vapors or dust. See also paragraph 8 below.  
At work do not eat or drink.

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

Keep in original container closed tightly. Do not store in open or unlabelled containers.  
Keep containers upright and safe by avoiding the possibility of falls or collisions.  
Store at temperature below 20°C, away from heat sources and direct exposure to sunlight.

## 7.3. Specific end use(s)

## Industrial Manufacturing:

Handle with extreme caution.

Store in a well ventilated place away from heat sources.

## Manufacture of food products:

Handle with care.

Store in a clean, dry, ventilated area away from heat and direct sunlight.

Keep container tightly closed.

## Public domain (administration, education, entertainment, services, craftsmen):

Handle with care. Store in a ventilated area and away from heat, keep the container tightly closed.

**SECTION 8. Exposure controls/personal protection**

## 8.1. Control parameters

No data available.

## 8.2. Exposure controls



## Appropriate engineering controls:

## Industrial Manufacturing:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

## Manufacture of food products:

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

## Public domain (administration, education, entertainment, services, craftsmen):

No specific monitoring foreseen (act according to good practice and specific rules for the type of risk associated)

## Individual protection measures:

## (a) Eye / face protection

When handling the pure product use safety glasses (spectacles cage) (EN 166).

## (b) Skin protection

## (i) Hand protection

When handling the pure product use chemical resistant protective gloves (EN 374-1/EN374-2/EN374-3)

## (ii) Other

When handling the pure product wear full protective skin clothing.

## (c) Respiratory protection

Needed in case of insufficient ventilation or prolonged exposure.

Use adequate protective respiratory equipment (EN 141)

## (d) Thermal hazards

No hazard to report

## Environmental exposure controls:

Use according to good working practices and avoid to disperse the product into the environment.

**SECTION 9. Physical and chemical properties**

## 9.1. Information on basic physical and chemical properties

Physical and chemical properties	Value	Determination method
Appearance	Brown liquid	
Odour	characteristic	
Odour threshold	not determined	
pH	4,5 ± 0,5 (20°C)	
Melting point/freezing point	not determined	
Initial boiling point and boiling range	not determined	
Flash point	irrelevant	ASTM D92
Evaporation rate	irrelevant	
Flammability (solid, gas)	irrelevant	
Upper/lower flammability or explosive limits	irrelevant	
Vapour pressure	irrelevant	
Vapour density	irrelevant	
Relative density	not determined	
Solubility	not determined	
Water solubility	not determined	
Partition coefficient: n-octanol/water	not determined	
Auto-ignition temperature	irrelevant	
Decomposition temperature	irrelevant	
Viscosity	not determined	
Explosive properties	irrelevant	
Oxidising properties	irrelevant	

## 9.2. Other information

No data available.

**SECTION 10. Stability and reactivity**

## 10.1. Reactivity

No reactivity hazards

## 10.2. Chemical stability

No hazardous reaction when handled and stored according to provisions.

## 10.3. Possibility of hazardous reactions

There are no hazardous reactions

## 10.4. Conditions to avoid

Exposure to heat and sunlight

#### 10.5. Incompatible materials

None

#### 10.6. Hazardous decomposition products

Does not decompose when used for intended uses.

### SECTION 11. Toxicological information

#### 11.1. Information on toxicological effects

ATE(mix) oral = 0,0 mg/kg

ATE(mix) dermal = 0,0 mg/kg

ATE(mix) inhal = 0,0 mg/l/4 h

(a) acute toxicity: not applicable

(b) skin corrosion/irritation: not applicable

(c) serious eye damage/irritation: not applicable

(d) respiratory or skin sensitization: The product, if inhaled, can cause sensitization.

(e) germ cell mutagenicity: not applicable

(f) carcinogenicity: not applicable

(g) reproductive toxicity: not applicable

(h) specific target organ toxicity (STOT) single exposure: not applicable

(i) specific target organ toxicity (STOT) repeated exposure: not applicable

(j) aspiration hazard: not applicable

### SECTION 12. Ecological information

#### 12.1. Toxicity

Use according to good working practices and avoid to disperse the product into the environment.

#### 12.2. Persistence and degradability

No data available.

#### 12.3. Bioaccumulative potential

No data available.

#### 12.4. Mobility in soil

No data available.

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

The substance / mixture does NOT contain substances PBT/vPvB according to Regulation (EC) No 1907/2006, Annex XIII

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#### 12.6. Other adverse effects

No adverse effects

### SECTION 13. Disposal considerations

#### 13.1. Waste treatment methods

Do not reuse empty containers. Dispose of them in accordance with the regulations in force. Any remaining product should be disposed of according to applicable regulations by addressing to authorized companies.

Recover if possible. Send to authorized discharge plants or for incineration under controlled conditions. Operate according to local and National rules in force

### SECTION 14. Transport information

#### 14.1. UN number

Not included in the field of application of regulations concerning the transport of dangerous goods: by road (ADR); by rail (RID); by air (ICAO / IATA); by sea (IMDG).

#### 14.2. UN proper shipping name

None

#### 14.3. Transport hazard class(es)

None

#### 14.4. Packing group

None

#### 14.5. Environmental hazards

None

#### 14.6. Special precautions for user

No data available.

#### 14.7. Transport in bulk according to Annex II of MARPOL73/78 and IBC Code

Transport in bulk is not foreseen

### SECTION 15. Regulatory information

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

Leg. 3/2/1997 n. 52 (Classification, packaging and labeling of dangerous substances). Decree No. 14/3/2003. 65 (Classification, packaging and labeling of dangerous substances). Leg. 2/2/2002 n. 25 (risks related to chemical agents at work). Ministerial Decree Jobs 26/02/2004 (occupational exposure limits); DM 04/03/2007 (Implementation of Directive no. 2006/8/EC). Regulation (EC) n. 1907/2006 (REACH) Regulation (EC) n. 1272/2008 (CLP), Regulation (EC)

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# SAFETY DATA SHEET

ENDOZYM AMG

Issued on 10/31/2013 - Rel. # 1 on 06/03/2013

# 8 / 8

In conformity to Regulation (EC) No 453/2010 of 20 May 2010

n.790/2009.D.Lgs. September 21, 2005 n. 238 (Seveso Directive Ter).  
15.2. Chemical safety assessment

No chemical safety assessment was carried out by the supplier

## SECTION 16. Other information

### 16.1. Other information

Description of risk phrases set out in paragraph 3

R42 = May cause sensitization by inhalation.

Description of hazard statements set out in paragraph 3

H334 = May cause allergy or asthma symptoms or breathing difficulties if inhaled

Classification based on data of all mixture components

Main normative references:

Directive 1999/45/EC.

Directive 2001/60/EC.

Regulation 1272/2008/EC.

Regulation 2010/453/EC.

This msds was made in good faith by AEB technical Office on the basis of the information available at the date of the last revision. The person in charge must regularly inform the employees about the specific risks they encounter when using this substance/product. The information contained here relate only to the substance/the preparation indicated and may not apply if the product is used improperly or in combination with others. Nothing contained herein shall be construed as a guarantee, either express or implied. It is the responsibility of the user to ensure the opportunities and completeness of the information contained herein for their own particular use.

\*\*\* this tab annuls and replaces any previous edition. (IIXX3555-CLP)

Changes to the previous edition: regulatory update