

# Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Issue date: 09/07/2017 Revision date: 03/02/2022 Supersedes: 02/08/2022

Version: 1.0

## **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Product name : Amyloglucosidase (A. niger)

Product code : E-AMGDF

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Use as laboratory reagent

1.3. Supplier

Megazyme
Bray Business Park
Bray, A98 YV29 - Ireland

T +353 12861220 - F +353 12861264 <u>cs@megazyme.com</u> - <u>www.megazyme.com</u>

1.4. Emergency telephone number

Emergency number : +353 12861220 [9 am to 5 pm GMT - Monday to Friday]

# SECTION 2: Hazard(s) identification

#### 2.1. Classification of the substance or mixture

#### **GHS US classification**

Respiratory sensitization, Category 1 May cause an allergy or asthma symptoms or breathing difficulties if inhaled

2.2. GHS Label elements, including precautionary statements

**GHS US labeling** 

Hazard pictograms (GHS US)

Signal word (GHS US) : Danger

Hazard statements (GHS US) : May cause an allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (GHS US) : Avoid breathing spray, mist.

[In case of inadequate ventilation] wear Dust respirator.

If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for

breathing.

If experiencing respiratory symptoms: Call a POISON CENTER, a doctor.

Dispose of contents/container to hazardous or special waste collection point, in accordance

with local, regional, national and/or international regulation

#### 2.3. Other hazards which do not result in classification

No additional information available

#### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## **SECTION 3: Composition/Information on ingredients**

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
Glucoamylase	Glucan 1,4alpha glucosidase / Amyloglucosidase / Amylase .gamma., amylase gluco / Glucoamylase / AMYLOGLUCOSIDASE / 4alphaD-Glucan glucohydrolase	(CAS-No.) 9032-08-0	5 – 10	Resp. Sens. 1, H334

Full text of hazard classes and H-statements : see section 16

#### **SECTION 4: First-aid measures**

#### 4.1. Description of first aid measures

First-aid measures general : Call a poison center/doctor/physician if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. If experiencing respiratory

symptoms: Call a poison center or a doctor.

First-aid measures after skin contact : Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with water as a precaution.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

#### 4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

#### 4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

#### **SECTION 5: Fire-fighting measures**

#### 5.1. Suitable (and unsuitable) extinguishing media

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

# 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of

fire

: Toxic fumes may be released.

# 5.3. Special protective equipment and precautions for fire-fighters

Protection during firefighting

: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

# **SECTION 6: Accidental release measures**

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

#### 6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid breathing dust/fume/gas/mist/vapors/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information

refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.

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

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

For further information refer to section 13.

#### SECTION 7: Handling and storage

# 7.1. Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Avoid

breathing dust/fume/gas/mist/vapors/spray.

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Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the

product

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

Storage conditions : Store in a well-ventilated place. Keep cool.

## SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

# Amyloglucosidase (A. niger) No additional information available Glucoamylase (9032-08-0)

No additional information available

#### 8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

# 8.3. Individual protection measures/Personal protective equipment

#### Hand protection:

Protective gloves

Туре	Material	Permeation	Thickness (mm)	Penetration
Disposable gloves	Nitrile rubber (NBR)	3 (> 60 minutes)		

#### Eye protection:

Safety glasses



# Skin and body protection:

Wear suitable protective clothing

Type
Lab coat

#### Respiratory protection:

Wear respiratory protection.

Device	Filter type	Condition
Dust mask	Type P1	Protection for Liquid particles

# Personal protective equipment symbol(s):







#### **SECTION 9: Physical and chemical properties**

#### 9.1. Information on basic physical and chemical properties

Physical state : Liquid
Color : Colorless
Odor : characteristic
Odor threshold : No data available
pH : No data available

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Melting point : Not applicable Freezing point : No data available **Boiling** point No data available : No data available Flash point : No data available Relative evaporation rate (butyl acetate=1) Flammability (solid, gas) : Not applicable. : No data available Vapor pressure Relative vapor density at 20 °C No data available Relative density : No data available Solubility Soluble in water. Partition coefficient n-octanol/water (Log Pow) : No data available Auto-ignition temperature : No data available : No data available Decomposition temperature : No data available Viscosity, kinematic : No data available Viscosity, dynamic **Explosion limits** No data available Explosive properties : No data available : No data available Oxidizing properties

#### 9.2. Other information

No additional information available

#### **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

#### 10.2. Chemical stability

Stable under normal conditions.

# 10.3. Possibility of hazardous reactions

Contact with acids liberates very toxic gas.

#### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

# 10.5. Incompatible materials

Acids.

# 10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## **SECTION 11: Toxicological information**

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Not classified
Skin corrosion/irritation : Not classified
Serious eye damage/irritation : Not classified

Respiratory or skin sensitization : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : Not classified STOT-repeated exposure : Not classified

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Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects after inhalation : May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

#### **SECTION 12: Ecological information**

#### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse

effects in the environment.

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

No additional information available

## **SECTION 13: Disposal considerations**

#### 13.1. Disposal methods

Waste treatment methods

: Dispose of contents/container in accordance with licensed collector's sorting instructions.

#### **SECTION 14: Transport information**

#### **Department of Transportation (DOT)**

In accordance with DOT

Not applicable

# **Transportation of Dangerous Goods**

Not applicable

#### Transport by sea

Not applicable

#### Air transport

Not applicable

## **SECTION 15: Regulatory information**

#### 15.1. US Federal regulations

# Glucoamylase (9032-08-0)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

EPA TSCA Regulatory Flag

XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

#### 15.2. International regulations

#### CANADA

## Glucoamylase (9032-08-0)

Listed on the Canadian DSL (Domestic Substances List)

#### **EU-Regulations**

#### Glucoamylase (9032-08-0)

Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

#### National regulations

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#### Glucoamylase (9032-08-0)

Listed introduction on Australian Industrial Chemicals Introduction Scheme (AICIS Inventory)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

Listed on KECL/KECI (Korean Existing Chemicals Inventory)

Listed on NZIoC (New Zealand Inventory of Chemicals)

Listed on CICR (Turkish Inventory and Control of Chemicals)

Listed on the TCSI (Taiwan Chemical Substance Inventory)

#### 15.3. US State regulations

No additional information available

## **SECTION 16: Other information**

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SDS US (GHS HazCom 2012)

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.



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