

SAFETY DATA SHEET

(RG, 13.12.2014, No-29204) It complies with the Regulation on Safety Data Sheets on Hazardous Substances and Mixtures.

Substane/Mixture Name	Glucoamylase Enzyme	Regulation Date	30.12.2024
		Editing Date	
Form No	040.100.17	Number Of Editing	1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier

Product Name : [Glucoamylase Enzyme](#)
 Form No/GBF No : 040.100.90
 Brand : [Tito](#)
 E Code : No additional information available.
 EC No : 232-877-2
 CAS No : 9032-08-0
 Country of Origin : Türkiye (The origin of the main component is different from the origin of the final product).
 Functional Class : Enzyme
 Source : *Aspergillus niger*

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

Identified uses : Manufacturing of products in food and various industries.
 Foods that can be added : It is used in permitted finished products, taking into account the relevant limitations, in accordance with the regulations in the Turkish Food Codex, Food Additives Regulation and vertical communiqué. If the food laws are not explained enough, please apply to the Food Law Authorities in your country.
 Uses advised against : No additional information available.

1.3 Details of the supplier of the tds Identification of the company

Name of Food Manufacturer : Smart Chemistry Trade and Consulting Limited Company
 Address of Food Manufacturer : 3AO, 8901/3 Street, Balatçık Neighborhood, Ege Industrial Site, Çiğli/İzmir
 Central Address : 10016 Street No:18 AOSB Çiğli/İzmir
 Manufacturer Registration Number : TR-35-K-047442
 Telephone : 0850 441 00 22
 Email Address : s@hammaddeler.com
 Websites : hammaddeler.com – gbf.com.tr

1.4 Emergency Phone Number

National Toxic Information Center (UZEM): 114

SECTION 2. HAZARDS IDENTIFICATION

2.1 Classification of Substance and Mixture

Classification according to Regulation (EC) No 1272/2008

Respiratory Sensitive (Category 1) : H334

2.2 Label elements

Labelling according Regulation (EC) No 1272/2008

Pictogram



Signal word (SEA) : Danger

Hazard Statements (SEA)

H334 : My cause allergy or symptoms or breathing difficulties if inhaled.

Precautionary statement(s)

P261 : Avoid breathing dust/fume/gas/mist/vapours/spray.

P284 : (In case of inadequate ventilation) wear respiratory protection.

P304 + P340 : IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P342 + P311 : If experiencing respiratory symptoms: Call a POISON CENTER/doctor.

Hazardous component(s) for labelling:

Contains: Enzyme Protein

2.3 Other hazards

Avoid dust development and deposition – dust explosion risk.

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The product does not contain a substance fulfilling the PBT criteria or the vPvB criteria.

Classification system

The classification was made according to the latest editions of the EU-lists, and extended by company and literature data.

SECTION 3.COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

Component Name	EC No	CAS No	Concentration (%)	(RG, 11.12. 2013, No 28848) Classification in accordance with the "Regulation on Classification, Labeling and Packaging of Substances and Mixtures" (SEA)
Enzyme Protein	232-877-2	9032-08-0	< 50	Resp. Sens. 1,H334

SECTION 4. FIRST AID MEASURES

4.1 Description of first aid measures

Following inhalation

May cause allergic respiratory reaction. Shortness of breath, wheezing and coughing. The effect of inhalation may be delayed. Remove person to fresh air. If symptoms continue, get medical attention.

In case of skin contact

Immediately remove contaminated clothing. Immediately wash with a plenty of water. If skin irritation continues, consult a doctor.

After eye contact

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

Following ingestion

Rinse out mouth and drink a glass of water. If symptoms persist consult a doctor.

4.2 Most important symptoms and effects, both acute and delayed

No additional information available.

4.3 Indication of any immediate medical attention and special treatment needed

Symptomatic treatment (decontamination, vital functions).

SECTION 5. FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing media

Dry chemical, foam, water spray, carbon dioxide

Unsuitable extinguishing media

Water full jet .

5.2 Special hazards arising from the substance or mixture

May cause allergic respiratory reactions.

Toxic gases can be released in case of fire.

5.3 Advice for firefighters

Use independent breathing apparatus and protective clothing to prevent contact with eyes and skin. Do not allow the release of extinguishing media to drains / groundwater / surface water. Fire residues and contaminated firefighting water must be disposed of in accordance within the local regulations.

5.4 Additional information

No additional information available.

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SECTION 6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Use suitable protective equipment to avoid eye and skin contamination. Avoid dust formation. Ensure sufficient ventilation. Keep unprotected persons away. Keep away from sources of ignition: heat, sparks or open flame.

6.2 Environmental precautions

Prevent product from getting into drains / groundwater / surface water.

6.3 Methods and material for containment and cleaning up

Spilled preparation should be removed immediately to avoid formation of dust from dried preparation. Take up mechanical means preferably by a vacuum cleaner equipped with high efficiency filter. Flush remainder carefully with plenty of water. Ensure sufficient ventilation. Wash contaminated clothing.

6.4 Reference to other sections

Information regarding exposure controls/personal protection and disposal considerations can be found in section 8 and 13.

SECTION 7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid contact with skin and eyes. Wash hands and face thoroughly after working with this material. Ensure good ventilation / exhaustion at the workplace. Prevent formation of dust and aerosols. Keep working area dry and clean. Keep away from heat and direct sunlight. Do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed in a dry, cool and well-ventilated place.

Keep only in original container.

Storage class: 10-13

Storage temperature: < 25°C

7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

BÖLÜM 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational exposure limits

No additional information available.

8.2 Exposure controls

8.2.1. Appropriate engineering controls

Technical measures and appropriate working operations should be given priority over use of personal protective equipment.

8.2.2. Personal protection equipment

Individual protective

Protective clothing needs to be selected specifically for the workplace, depending on concentration and quantities of hazardous substance handled.

Hygiene measures

Change contaminated clothing. Preventive skin protection recommended. Wash hands after working with substance.

Hand protection

Chemical resistant gloves (EN 374). The glove material has to be impermeable and resistant to the product/ the substance / the mixture. Due to missing tests no recommendation to the glove material can be given for the product / the substance / the mixture. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation.

Respiratory protection

Do not inhale dust/ smoke / mist. Use breathing protection in case of dust formation. (e.g. P3)

Material of gloves

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

Eye protection

Tightly sealed goggles EN 166.

Body protection

Protective work clothing.

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8.2.3. Environmental exposure controls

Prevent further leakage or spillage. Do not let product enter drains / groundwater / surface water. Discharge into the environment must be avoided.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	: Powder
Colour	: Cream coloured to beige
Odour	: Neutral
Activity of the enzyme	: 6000-6600 u/g
Density	: 1,0-1,2 kg/
Total heavy metals	: <40 mg/kg
Lead (Pb)	: ≤10 mg/kg
pH	: No additional information available.
Solubility	: No additional information available.
Initial boiling point and boiling range	: No additional information available.
Melting point/Freezing point	: No additional information available.
Flash Point	: No additional information available.
Evaporation Rate	: No additional information available.
Vapor Pressure	: No additional information available.
Relative density	: No additional information available.
Flammability	: No additional information available.

9.2 Other information

No additional information available.

SECTION 10. STABILITY AND REACTIVITY

10.1 Reactivity

No hazardous reactions if stored and handled as prescribed/indicated.

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

Risk of dust explosion.

10.4 Conditions to avoid

Dust formation, heat, sources of ignition.

10.5 Incompatible materials

No additional information available.

10.6 Hazardous decomposition products

Toxic gases can be released in case of fire.

SECTION 11. TOXICOLOGICAL INFORMATION

11.1 Information on Toxic Effects

Acute oral toxicity:

LD50 Oral : Rat - >2000 mg/kg

Acute dermal toxicity:

Not classified, due to lack of data.

Serious eye damage/irritation:

Not classified, due to lack of data.

Skin corrosion/irritation:

Not classified, due to lack of data.

Respiratory or skin sensitization:

Inhalation of enzyme mist/dust may cause allergic respiratory reactions including asthma, susceptible individuals on repeated exposure.

Germ cell mutagenicity:

Not classified, due to lack of data.

Carcinogenicity:

Not classified, due to lack of data.

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Reproductive toxicity

Not classified, due to lack of data.

Specific target organ toxicity – Single exposure:

Not classified, due to lack of data.

Specific target organ toxicity - repeated exposure:

Not classified, due to lack of data.

Aspiration Toxicity:

Not classified, due to lack of data.

SECTION 12. ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity to fish : LC50 - >108.0 mg/l - 96.0 h

Toxicity to daphnia and other aquatic invertebrates : EC50 - Daphnia magna (Water flea) - >120.0 mg/l – 48 h

Toxicity to algae : ErC50 - Algae - >108.0 mg/l – 72 h

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 Results of PBT and vPvB assessment

The product does not contain a substance fulfilling the PBT criteria or the VPVB criteria.

12.6 Other adverse effects

Do not allow to run into surface water, wastewater or soil.

SECTION 13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Product

Recommendation: Disposal must be made in accordance to official regulations (2008/98EEC).

Contaminated packaging

Recommendation: Dispose uncleaned packaging in the same way as product waste. Disposal must be made in accordance to official regulations.

SECTION 14. TRANSPORT INFORMATION

Glucoamylase Enzyme is not considered dangerous according to international transportation regulations (ADR, IMCO/IMDG, ICAO/IATA).

SECTION 15. REGULATORY INFORMATION

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

15.1.1. EU regulations

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006, Annex II, at least amended by Regulation (EU) 2015/830.

15.1.2. National regulations

Water hazard class (Germany): 1 (Self-assessment): Slightly hazardous to water.

15.2. Chemical safety assessment

The chemical assessment was not carried out.

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SECTION 16. OTHER INFORMATION

Waiver Statement

The information presented in this safety data sheet is based on the information we already have. Although the information is reliable, it should not be considered accurate and complete. The prepared safety data sheet does not constitute a guarantee and should be used as a guide. This information has been prepared specifically for the substance or mixture in question, and may not be valid for compounds and processes made with other substances. and may vary depending on other raw materials; For this reason, the person or institution purchasing the products freely decides to use the product after evaluating its suitability for its own use, its impact on environmental conditions, its effects on occupational health and safety. Hammaler.com, Smart Kimya Tic. and Dan. Ltd. Şti., our representatives and solution partners cannot be held responsible for the use of this information.

