

**Section 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

**Product name:** AMYLOGLUCOSIDASE

**CAS number:** 9032-08-0

**EINECS number:** 232-877-2

**Product code:** AMG

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

**Use of substance / mixture:** Beverage Processing Aids and Other Usages

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

**Company name:** Murphy and Son Ltd

Murphy & Son Ltd

Alpine St, Old Basford

Nottingham

NG6 0HQ

United Kingdom

**Tel:** (+44) 115 978 5494

**Email:** technical@murphyandson.co.uk

**1.4. Emergency telephone number**

**Emergency tel:** (+44) 115 978 5494

(office hours only)

**Section 2: Hazards identification****2.1. Classification of the substance or mixture**

**Classification under CLP:** Resp. Sens. 1: H334; -: EUH208

**Most important adverse effects:** Contains glucoamylase. May produce an allergic reaction. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**2.2. Label elements****Label elements:**

**Hazard statements:** EUH208: Contains glucoamylase. May produce an allergic reaction.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Hazard pictograms:** GHS08: Health hazard



# SAFETY DATA SHEET

## AMYLOGLUCOSIDASE

Page: 2

**Signal words:** Danger

**Precautionary statements:** P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.

P284: 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 or doctor.

P501: Dispose of contents/container to hazardous or special waste collection point.

### 2.3. Other hazards

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

GLUCOAMYLASE

| EINECS | CAS     | PBT / WEL | CLP Classification  | Percent |
|--------|---------|-----------|---------------------|---------|
| -      | 9032080 | -         | Resp. Sens. 1: H334 | 10-30%  |

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes.

**Ingestion:** Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty sits or lies down. If unconscious and breathing is OK, place in the recovery position. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat. There may be shortness of breath due to congestion of the lungs.

**Inhalation:** Exposure may cause coughing or wheezing. There may be congestion of the lungs causing severe shortness of breath.

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

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

**Immediate / special treatment:** Not applicable.

[cont...]

# SAFETY DATA SHEET

AMYLOGLUCOSIDASE

Page: 3

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Alcohol resistant foam. Water spray. Dry chemical powder. Suitable extinguishing media for the surrounding fire should be used.

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

**Exposure hazards:** In combustion emits toxic fumes.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Notify the police and fire brigade immediately. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Turn leaking containers leak-side up to prevent the escape of liquid.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Alert the neighbourhood to the presence of fumes or gas. Contain the spillage using bunding.

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

**Clean-up procedures:** Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is exhaust ventilation of the area. Avoid the formation or spread of mists in the air.

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

**Storage conditions:** Store in a cool, well ventilated area. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

[cont...]

# SAFETY DATA SHEET

AMYLOGLUCOSIDASE

Page: 4

## 7.3. Specific end use(s)

Specific end use(s): No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

Workplace exposure limits: No data available.

### DNEL/PNEC Values

#### AMYLOGLUCOSIDASE

| Type | Exposure                       | Value   | Population | Effect   |
|------|--------------------------------|---------|------------|----------|
| DNEL | Inhalation                     | 60ng/m3 | Workers    | Systemic |
| DNEL | Inhalation (developmental tox) | 15ng/m3 | Consumers  | Systemic |

### 8.2. Exposure controls

**Engineering measures:** Ensure there is exhaust ventilation of the area.

**Respiratory protection:** Self-contained breathing apparatus must be used in handling.

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

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

**State:** Liquid

**Colour:** Brown

**Odour:** Perceptible odour

**Evaporation rate:** No data available.

**Oxidising:** No data available.

**Solubility in water:** Miscible in all proportions

**Viscosity:** No data available.

**Boiling point/range°C:** No data available.

**Flammability limits %: lower:** No data available.

**Flash point°C:** >100

**Autoflammability°C:** Not applicable.

**Relative density:** 1.09 - 1.15

**VOC g/l:** No data available.

**Melting point/range°C:** Not applicable.

**upper:** No data available.

**Part.coeff. n-octanol/water:** No data available.

**Vapour pressure:** No data available.

**pH:** 4.0 - 4.5

### 9.2. Other information

**Other information:** No data available.

[cont...]

# SAFETY DATA SHEET

AMYLOGLucosidase

Page: 5

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Strong oxidising agents. Strong acids.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

| Route | Species | Test | Value | Units |
|-------|---------|------|-------|-------|
| ORAL  | RAT     | LD50 | >2000 | mg/kg |

#### Hazardous ingredients:

##### GLUCOAMYLASE

|      |     |      |       |       |
|------|-----|------|-------|-------|
| ORAL | RAT | LD50 | >2000 | mg/kg |
|------|-----|------|-------|-------|

#### Relevant hazards for product:

| Hazard                         | Route | Basis                 |
|--------------------------------|-------|-----------------------|
| Respiratory/skin sensitisation | INH   | Hazardous: calculated |

## Symptoms / routes of exposure

**Skin contact:** There may be mild irritation at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be irritation of the throat. There may be shortness of breath due to congestion of the lungs.

**Inhalation:** Exposure may cause coughing or wheezing. There may be congestion of the lungs causing severe shortness of breath.

[cont...]

# SAFETY DATA SHEET

AMYLOGLUCOSIDASE

Page: 6

**Delayed / immediate effects:** Delayed effects can be expected after long-term exposure.

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

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:**

| Species | Test      | Value | Units |
|---------|-----------|-------|-------|
| ALGAE   | 72H ErC50 | >20   | mg/l  |
| FISH    | 96H LC50  | >20   | mg/l  |

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Disposal of packaging:** Empty contaminated packagings thoroughly. Spillage and packaging should be disposed of in a manner approved of by the Local Authority.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

**Transport class:** This product does not require a classification for transport.

## Section 15: Regulatory information

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

**Specific regulations:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

[cont...]

# SAFETY DATA SHEET

AMYLOGLUCOSIDASE

Page: 7

## 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** EUH208: Contains glucoamylase. May produce an allergic reaction.

H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**Legend to abbreviations:** PNEC = predicted no effect concentration

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

LDLO = lethal dose low

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

IPR = intraperitoneal

SCU = subcutaneous

ORL = oral

SKN = skin

DRM = dermal

OCC = ocular/corneal

OPT = optical

ING = ingestion

INH = inhalation

PCP = physico-chemical properties

[cont...]

## **SAFETY DATA SHEET**

AMYLOGLUCOSIDASE

**Page: 8**

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.