

# **Total Starch Assay Kit (AA/AMG)**

Kit SIS (Safety Information Sheet)

Issue date (US):1/15/2018 Revision date (US):4/12/2022 Supersedes (US):3/22/2019 Version (US):1.2

# **SECTION 1: Kit identification**

#### 1.1. Kit identifier

Product name : Total Starch Assay Kit (AA/AMG)

Product code : K-TSTA

### 1.2. Details of the supplier of the Kit safety information sheet

Megazyme
Bray Business Park
A98 YV29 Bray - Ireland
T +353 12861220 - F +353 12861264
cs@megazyme.com - www.megazyme.com

# **SECTION 2: General information**

This product is a Kit which consists of several independently packaged components

This Kit should be handled in accordance with good laboratory practices and appropriate personal protective equipment should be used

### **SECTION 3: Kit contents**

Name	General description	Quantity	Unit	GHS US classification
Total Starch Assay Kit (AA/AMG) (Bottle 1)	Reagent	1	pcs (pieces)	Resp. Sens. 1, H334
Total Starch Assay Kit (AA/AMG) (Bottle 2)	Reagent	1	pcs (pieces)	Resp. Sens. 1, H334
Total Starch Assay Kit (AA/AMG) (Bottle 3)	Reagent	1	pcs (pieces)	Skin Irrit. 2, H315 Eye Dam. 1, H318
Total Starch Assay Kit (AA/AMG) (Bottle 4)	Reagent	1	pcs (pieces)	Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334

Name	General description	Quantity	Unit	GHS US classification
Total Starch Assay Kit (AA/AMG) (Bottle 5)	Reagent	1	pcs (pieces)	Not classified

## **SECTION 4: General advice**

No data available

# SECTION 5: Safe handling advice

Environmental precautions : Avoid release to the environment Storage conditions : Store in a well-ventilated place.

Keep cool.

Precautions for safe handling : Ensure good ventilation of the work station

Wear personal protective equipment

# **SECTION 6: First aid measures**

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

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

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

Other medical advice or treatment : Treat symptomatically

# **SECTION 7: Fire fighting measures**

Protection during firefighting : Do not attempt to take action without suitable protective equipment

Self-contained breathing apparatus

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# **Total Starch Assay Kit (AA/AMG)**

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Complete protective clothing

Hazardous decomposition products in case of

: Toxic fumes may be released

# **SECTION 8: Other information**

No data available

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

Issue date: 12/19/2017 Revision date: 03/21/2022 Supersedes: 12/19/2017 Version: 1.0

**SECTION 1: Identification** 

1.1. Identification

Product form : Mixture

Product name : Total Starch Assay Kit (AA/AMG) (Bottle 5)

Product code : K-TSTA (Bottle 5)

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
cs@megazyme.com - www.megazyme.com

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**

Not classified

### 2.2. GHS Label elements, including precautionary statements

### **GHS US labeling**

No labeling applicable

### 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

This mixture does not contain any substances to be mentioned according to the criteria of section 3.2 of HazCom 2012

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

## 4.1. Description of first aid measures

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

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)

### 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.

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#### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of

: Toxic fumes may be released.

fire

### 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.

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.

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

### Total Starch Assay Kit (AA/AMG) (Bottle 5)

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)		2 (< 1.5)

### Eye protection:

Safety glasses

Туре	Use	Characteristics
Safety glasses	Droplet	With side shields

### Skin and body protection:

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### Wear suitable protective clothing

Type

Lab coat

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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 : None

Odor threshold No data available рΗ : No data available : Not applicable Melting point Freezing point : No data available Boiling point : No data available Flash point No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available 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 Decomposition temperature : No data available : No data available Viscosity, kinematic : No data available Viscosity, dynamic **Explosion limits** : No data available

### 9.2. Other information

No additional information available

# **SECTION 10: Stability and reactivity**

#### 10.1. Reactivity

Explosive properties

Oxidizing properties

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

No dangerous reactions known under normal conditions of use.

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: No data available

: No data available

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### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

### 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 Not classified Acute toxicity (dermal) : Not classified Acute toxicity (inhalation) Skin corrosion/irritation : Not classified : Not classified Serious eye damage/irritation Respiratory or skin sensitization : Not classified Germ cell mutagenicity : Not classified Carcinogenicity : Not classified Reproductive toxicity : Not classified STOT-single exposure : Not classified STOT-repeated exposure : Not classified Aspiration hazard : Not classified Viscosity, kinematic : No data available

# **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

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Transport by sea

Not applicable

Air transport

Not applicable

# **SECTION 15: Regulatory information**

### 15.1. US Federal regulations

No additional information available

15.2. International regulations

#### **CANADA**

No additional information available

**EU-Regulations** 

No additional information available

**National regulations** 

No additional information available

15.3. US State regulations

No additional information available

# **SECTION 16: Other information**

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

Revision date : 03/21/2022

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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# Safety Data Sheet

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

Issue date: 12/19/2017 Revision date: 03/21/2022 Supersedes: 12/19/2017

Version: 1.0

## **SECTION 1: Identification**

### Identification

Product form : Mixture

Product name : Total Starch Assay Kit (AA/AMG) (Bottle 4)

Product code : K-TSTA (Bottle 4)

### 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 cs@megazyme.com - www.megazyme.com

#### 1.4. **Emergency telephone number**

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

### SECTION 2: Hazard(s) identification

### Classification of the substance or mixture

### **GHS US classification**

Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 2

Causes skin irritation Causes serious eye irritation Respiratory sensitization, Category 1

May cause an allergy or asthma symptoms or breathing difficulties if inhaled

#### GHS Label elements, including precautionary statements 2.2.

#### **GHS US labeling**

Hazard pictograms (GHS US)





Signal word (GHS US) : Danger

Hazard statements (GHS US) : Causes skin irritation Causes serious eye irritation

May cause an allergy or asthma symptoms or breathing difficulties if inhaled

Avoid breathing dust. Precautionary statements (GHS US)

Wash hands thoroughly after handling.

Wear eye protection, protective clothing, protective gloves [In case of inadequate ventilation] wear respiratory protection.

If on skin: Wash with plenty of water.

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

breathing

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Specific treatment (see supplemental first aid instruction on this label).

If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention.

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

Take off contaminated clothing and wash it before reuse.

Dispose of contents/container to

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

No additional information available

### Unknown acute toxicity (GHS US)

Not applicable

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### SECTION 3: Composition/Information on ingredients

### **Substances**

Not applicable

#### 3.2. **Mixtures**

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
GLUCOSE OXIDASE		(CAS-No.) 9001-37-0	10 – 20	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Resp. Sens. 1, H334
4-aminoantipyrine	1,5-dimethyl-2-phenyl-4- aminopyrazoline / 1,5- dimethyl-2-phenyl-4- aminopyrazolone / 3H- pyrazol-3-one, 4-amino- 1,2-dihydro-1,5-dimethyl- 2-phenyl- / 3-pyrazolin-5- one, 4-amino-2,3- dimethyl-1-phenyl- / 4- AAP (=4-aminoantipyrene) / 4-amino-1,2-dihydro-1,5- dimethyl-2-phenyl-3H- pyrazol-3-one / 4-amino- 2,3-dimethyl-1-phenyl-3- pyrazolin-5-one / 4- aminoantipyrene / 4- aminoantipyrene / 4- aminoantipyrine / aminoartipyrine / aminoazophenazone / aminoaryone / antipyrine, 4- amino- / metapirazone / solnapyrin-A	(CAS-No.) 83-07-8	10 – 20	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
HORSERADISH PEROXIDASE		(CAS-No.) 9003-99-0	1 – 5	Resp. Sens. 1, H334

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

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

#### **Description of first aid measures**

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

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

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.

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

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

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

Treat symptomatically.

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

# Suitable (and unsuitable) extinguishing media

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

#### 5.2. Specific hazards arising from the chemical

Hazardous decomposition products in case of : Toxic fumes may be released.

fire

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

: Do not attempt to take action without suitable protective equipment. Self-contained breathing Protection during firefighting

apparatus. Complete protective clothing.

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### **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 : Mechanically recover the product.

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.

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

## Total Starch Assay Kit (AA/AMG) (Bottle 4)

No additional information available

#### 4-aminoantipyrine (83-07-8)

No additional information available

# HORSERADISH PEROXIDASE (9003-99-0)

No additional information available

## GLUCOSE OXIDASE (9001-37-0)

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)		2 (< 1.5)

### Eye protection:

Safety glasses

Туре	Use	Characteristics
Safety glasses	Dust	With side shields

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## Skin and body protection:

Wear suitable protective clothing

Type

Lab coat

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment. Wear respiratory protection.

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

### Personal protective equipment symbol(s):







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

## 9.1. Information on basic physical and chemical properties

Physical state : Solid

Color : Mixture contains one or more component(s) which have the following colour(s):

Light yellow to brown

: No data available

No data available

Odor : None

Odor threshold : No data available рΗ No data available Melting point : No data available Freezing point Not applicable Boiling point : No data available : Not applicable Flash point Relative evaporation rate (butyl acetate=1) No data available Flammability (solid, gas) : Non flammable. : 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 : Not applicable : No data available Decomposition temperature Viscosity, kinematic : No data available Viscosity, dynamic : No data available **Explosion limits** : Not applicable

### 9.2. Other information

No additional information available

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

#### 10.1. Reactivity

Explosive properties

Oxidizing properties

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

### 10.2. Chemical stability

Stable under normal conditions.

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### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

### 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

### 4-aminoantipyrine (83-07-8)

LD50 oral rat 1700 mg/kg rat

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye irritation.

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

### 4-aminoantipyrine (83-07-8)

STOT-single exposure May cause respiratory irritation.

STOT-repeated exposure : Not classified

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

4-aminoantipyrine (83-07-8)	
Persistence and degradability	Biodegradability in water: no data available.

## 12.3. Bioaccumulative potential

4-aminoantipyrine (83-07-8)		
	Partition coefficient n-octanol/water (Log Pow)	-0.07 (estimated value)
	Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

No additional information available

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### 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

No additional information available

## 15.2. International regulations

# **CANADA**

No additional information available

**EU-Regulations** 

No additional information available

**National regulations** 

No additional information available

# 15.3. US State regulations

No additional information available

# **SECTION 16: Other information**

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

Revision date : 03/21/2022

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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# Safety Data Sheet

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

Issue date: 12/19/2017 Revision date: 03/21/2022 Supersedes: 12/19/2017 Version: 1.0

# **SECTION 1: Identification**

#### 1.1. Identification

Product form : Mixture

Product name : Total Starch Assay Kit (AA/AMG) (Bottle 3)

Product code : K-TSTA (Bottle 3)

#### 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 cs@megazyme.com - www.megazyme.com

### 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**

Skin corrosion/irritation Category 2 Serious eye damage/eye irritation Category 1 Causes skin irritation
Causes serious eye damage

### 2.2. GHS Label elements, including precautionary statements

### **GHS US labeling**

Hazard pictograms (GHS US)



Signal word (GHS US) : Danger

Hazard statements (GHS US) : Causes skin irritation

Causes serious eye damage

Precautionary statements (GHS US) : Wash hands thoroughly after handling.

Wear eye protection, protective clothing, protective gloves

If on skin: Wash with plenty of water.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present

and easy to do. Continue rinsing.

Immediately call a doctor, a POISON CENTER.

Specific treatment (see supplemental first aid instruction on this label).

If skin irritation occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse.

### 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

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
sodium hydroxide, caustic soda		(CAS-No.) 1310-73-2	1 – 5	Skin Corr. 1A, H314

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Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
4-HYDROXYBENZOIC ACID		(CAS-No.) 99-96-7	1 – 5	Eye Dam. 1, H318 STOT SE 3, H335

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

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

#### **Description of first aid measures**

First-aid measures general : IF exposed or concerned: Get medical advice/attention.

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

First-aid measures after skin contact Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get

medical advice/attention.

: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to First-aid measures after eye contact

do. Continue rinsing. Call a physician immediately.

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

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

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

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

Treat symptomatically.

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

# Suitable (and unsuitable) extinguishing media

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

### 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

: Ventilate spillage area. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with Emergency procedures

skin and eyes.

#### 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.

# 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.

# Reference to other sections

For further information refer to section 13.

### **SECTION 7: Handling and storage**

### Precautions for safe handling

Precautions for safe handling : Ensure good ventilation of the work station. Do not breathe dust/fume/gas/mist/vapors/spray.

Avoid contact with skin and eyes. Wear personal protective equipment.

: Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Hygiene measures

Always wash hands after handling the product.

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# Safety Data Sheet

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

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

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

# SECTION 8: Exposure controls/personal protection

## 8.1. Control parameters

# Total Starch Assay Kit (AA/AMG) (Bottle 3)

No additional information available

# sodium hydroxide, caustic soda (1310-73-2)

No additional information available

### 4-HYDROXYBENZOIC ACID (99-96-7)

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)		2 (< 1.5)

### Eye protection:

Safety glasses

Туре	Use	Characteristics
Safety glasses	Droplet	With side shields

### Skin and body protection:

Wear suitable protective clothing

	•
Туре	

# Respiratory protection:

Lab coat

In case of insufficient ventilation, wear suitable respiratory equipment

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 : None

Odor threshold : No data available pH : No data available

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# Safety Data Sheet

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

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

No dangerous reactions known under normal conditions of use.

# 10.4. Conditions to avoid

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

### 10.5. Incompatible materials

No additional information available

# 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 : Causes skin irritation.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified

STOT-single exposure : Not classified

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# Safety Data Sheet

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

4-HYDROXYBENZOIC ACID (99-96-7)		
STOT-single exposure	May cause respiratory irritation.	
STOT-repeated exposure	Not classified	

Aspiration hazard : Not classified Viscosity, kinematic : No data available

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

# **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

No additional information available

### 15.2. International regulations

### CANADA

No additional information available

**EU-Regulations** 

No additional information available

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# Safety Data Sheet

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

# **National regulations**

No additional information available

# 15.3. US State regulations

No additional information available

# **SECTION 16: Other information**

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

Revision date : 03/21/2022

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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# Safety Data Sheet

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

Issue date: 12/21/2017 Revision date: 03/21/2022 Supersedes: 12/21/2017

Version: 1.0

# **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Product name : Total Starch Assay Kit (AA/AMG) (Bottle 2)

Product code : K-TSTA (Bottle 2)

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
cs@megazyme.com - www.megazyme.com

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 mist, spray, vapors.

[In case of inadequate ventilation] wear respiratory protection.

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

### 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

Name	Common Name (Synonyms)	Product identifier	%	GHS US classification
AMYLOGLUCOSIDASE		(CAS-No.) 9032-08-0	5 – 10	Resp. Sens. 1, H334

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# Safety Data Sheet

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

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 after inhalation : Remove person to fresh air and keep comfortable for breathing.

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)

### 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

: Toxic fumes may be released.

# fire

Protection during firefighting

5.3.

Special protective equipment and precautions for fire-fighters

 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.

# 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.

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

## Total Starch Assay Kit (AA/AMG) (Bottle 2)

No additional information available

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# Safety Data Sheet

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

# **AMYLOGLUCOSIDASE (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)		2 (< 1.5)

### Eye protection:

Safety glasses

Туре	Use	Characteristics
Safety glasses	Droplet	With side shields

### Skin and body protection:

Wear suitable protective clothing

Туре	
Lab coat	

## Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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 : None

Odor threshold : No data available рΗ : No data available Melting point : Not applicable Freezing point : No data available : No data available Boiling point : No data available Flash point Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available Relative vapor density at 20 °C : No data available Relative density : No data available : Soluble in water. Solubility

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# Safety Data Sheet

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

Partition coefficient n-octanol/water (Log Pow) No data available Auto-ignition temperature : No data available Decomposition temperature No data available Viscosity, kinematic : No data available : No data available Viscosity, dynamic **Explosion limits** : No data available Explosive properties : No data available Oxidizing properties No data available

#### 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

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

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

#### 10.5. Incompatible materials

No additional information available

#### 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
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

# **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

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# Safety Data Sheet

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

### 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

No additional information available

# 15.2. International regulations

# CANADA

No additional information available

**EU-Regulations** 

No additional information available

**National regulations** 

No additional information available

# 15.3. US State regulations

No additional information available

# **SECTION 16: Other information**

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

Revision date : 03/21/2022

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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# Safety Data Sheet

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

Issue date: 12/21/2017 Revision date: 03/21/2022 Supersedes: 12/21/2017 Version: 1.0

# **SECTION 1: Identification**

1.1. Identification

Product form : Mixture

Product name : Total Starch Assay Kit (AA/AMG) (Bottle 1)

Product code : K-TSTA (Bottle 1)

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
cs@megazyme.com - www.megazyme.com

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 mist, spray, vapors.

[In case of inadequate ventilation] wear respiratory protection.

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

### 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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# Safety Data Sheet

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

(Synonyms)	Product identifier	%	GHS US classification
(Synonyms)  1,4alpha-D-glucan glucanohydrolase / 1,4- alpha-D-glucanase / 1,4- alpha-D-glucanase / 1,4- alpha-D-glucanase / 1,4- alpha-glucanase / alpha- amylase from hog pancreas / alpha-amylase from human saliva / alpha- amylase, DFP treated from hog pancreas / alpha-amylase, PMSF treated from hog pancreas / amano AD 1 / amylase AD / amylase THC 250 / amylase, alpha- / amylogal CS / amyloisin 5 / amylopsin / amylosubtilin / aquazym 120 L / aquazyme 240 / bactosol TK / BAM 240 / ban / ban (enzyme) / BAN 120 L / BAN 240 / ban 480 L / beisol T 2090 / biobake 40000 / bioferm / bioferm P / bioprep TBS / biotex GT / biozyme A / biozyme F / brewers Amylique TS / buclamase / canalpha 1000P / canalpha 600 L / canalpha 60P / cenazyme SA 7 / clarase / denazyme SA 7 / desize 160 / E.C. 3.2.1.1 / ekikakoso 6T / EMCEmaltex 1000 / endoamylase / FD Super / fortizyme / fungamyl 300 L / fungamyl 1 fungamyl 300 L / fungamyl	(CAS-No.) 9000-90-2	5 – 10	Resp. Sens. 1, H334
buclamase / canalpha 1000P / canalpha 600L / canalpha 60P / cenazyme SA 7 / clarase / denazyme SA 7 / desize 160 / E.C. 3.2.1.1 / EC 3.2 1.1 / ekikakoso 6T / EMCEmaltex 1000 / endoamylase / FD Super /			
fungamyl 2500BG /			
K / maltogenase 4000L / maxamyl / maxamyl HT 3000 / maxamyl WL 15,000 / maxilase / pivozin / plurafact oxam / ptyalin / speedase HS / speedase M / speedase XP 404 /			
spitase CP 1 / sumizyme L / taka-amylase / taka- amylase A / taka-diastase / takalite / takalite L 340 / takatherm / tanase / termamyl / termamyl 120L			
	1,4alpha-D-glucan glucanohydrolase / 1,4- alpha-D-glucanase / 1,4- alpha-D-glucanase / 1,4- alpha-glucanase / alpha-amylase from hog pancreas / alpha-amylase, DFP treated from hog pancreas / alpha-amylase, PMSF treated from hog pancreas / alpha-amylase, PMSF treated from hog pancreas / amano AD 1 / amylase AD / amylase THC 250 / amylase, alpha- / amylogal CS / amylolisin 5 / amylopsin / amylosubtilin / aquazym 120L / aquazyme 240 / bactosol TK / BAM 240 / ban / ban (enzyme) / BAN 120L / BAN 240 / ban / ban (enzyme) / BAN 120L / BAN 240 / ban 480L / beisol T 2090 / biobake 40000 / bioferm / bioferm P / bioprep TBS / biotex GT / biozyme A / biozyme F / brewers Amylique TS / buclamase / canalpha 1000P / canalpha 600L / canalpha 60P / cenazyme SA 7 / desize 160 / E.C. 3.2.1.1 / ekikakoso 6T / EMCEmaltex 1000 / endoamylase / FD Super / fortizyme / fungamyl 300 L / fungamyl 800L / G 995 / G6-Amylase / gamalpha HT 120L / gemsize 4A / G-zyme G 995 / hitempase / kleistase KD / kleistase L 1 / kleistase KD / kleistase L 1 / kleistase T 5 / kokugen K / maltogenase 4000L / maxamyl / maxamyl HT 3000 / maxamyl WL 15,000 / maxamyl FT 3000 / maxamyl WL 15,000 / maxamyl HT 3000 / maxamyl HT 3000 / maxamyl WL 15,000 / maxamyl HT 3000 / maxamyl WL 15,000 / maxamy	1,4alpha-D-glucan glucanohydrolase / 1,4-alpha-D-glucanase / 1,4-alpha-D-glucanase / 1,4-alpha-glucanase / alpha-amylase from hog pancreas / alpha-amylase from hog pancreas / alpha-amylase, DFP treated from hog pancreas / alpha-amylase, PMSF treated from hog pancreas / amano AD 1 / amylase AD / amylase HD / amylase AD / amylase AD / amylosubtilin / aquazym 120L / aquazyme 240 / bactosol TK / BAM 240 / ban / ban (enzyme) / BAN 120L / BAN 240 / ban / ban (enzyme) / BAN 120L / BAN 240 / ban / ban (enzyme) / BAN 120L / BAN 240 / ban / bolosol TK / BAM 240 / ban / bolosol TK / bolosol TK / BAM 240 / ban / bolosol TK / bolosol TK / bolosol TK / bolosol TK / BAM 240 / ban / bolosol TK / bolo	1,4-alpha-D-glucan glucanohydrolase / 1,4- alpha-D-glucanase / 1,4- alpha-D-glucanase / 1,4- alpha-glucanase / 1,4- alpha-glucanase / alpha- amylase from hog pancreas / alpha-amylase from human saliva / alpha- amylase, PFP treated from hog pancreas / alpha-amylase, PMSF treated from hog pancreas / amano AD 1 / amylase AD / amylase THC 250 / amylase, alpha- / amylogal CS / amylolisin 5 / amylospin / amylosubilin / aquazyme 240 / bactosol TK / BAM 240 / ban / ban (enzyme) / BAN 120L / BaN 240 / ban 480L / beisol T 2090 / biobake 40000 / bioferm / bioferm P / bioprep TBS / biotex GT / biozyme A / biozyme F / brewers Amylique TS / buclamase / canalpha 1000P / canalpha 600L / canalpha 60P / cenazyme SA 7 / delasse / denazyme SA 7 / delasse / denazyme SA 7 / desize 160 / E.C. 3,2,1,1 / EC 3,2,1,1 / ekikakoso 617 / EMCEmaltex 1000 / endoamylase / FD Super / fortizyme / fungamyl / fungamyl 300L / fungamyl 800L / G 995 / G6- Amylase / gamalpha HT 120L / gemsize 4A / G- zyme G 995 / hitempase / kleistase kD / kleistase L 1 / kleistase T 5 / kokugen K / maltogenase 4000L / maxamyl / maxamyl HT 3000 / maxamyl WL 15,000 / maxilase / pivozin / plurafact oxam / ptyalin / speedase HS / speedase M / speedase XP 404 / spitase CP 1 / sumizyme L / taka-amylase / taka- amylase / takalite L 340 / takatherm / tanase / termamyl / termamyl 120L

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 after inhalation : Remove person to fresh air and keep comfortable for breathing.

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)

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

Treat symptomatically.

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# Safety Data Sheet

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

### 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 : Toxic fumes may be released.

fire

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.

#### 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.

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

# Total Starch Assay Kit (AA/AMG) (Bottle 1)

No additional information available

### alpha-amylase (9000-90-2)

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)		2 (< 1.5)

### Eye protection:

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# Safety Data Sheet

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

### Safety glasses

Туре	Use	Characteristics
Safety glasses	Droplet	With side shields

### Skin and body protection:

Wear suitable protective clothing

Туре

Lab coat

### Respiratory protection:

In case of insufficient ventilation, wear suitable respiratory equipment

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 : Mixture contains one or more component(s) which have the following colour(s):

Light brown

: No data available

Odor : None

Odor threshold : No data available рΗ : No data available Melting point : Not applicable Freezing point No data available Boiling point : No data available Flash point : No data available Relative evaporation rate (butyl acetate=1) : No data available Flammability (solid, gas) : Not applicable. Vapor pressure : No data available 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 Decomposition temperature : No data available Viscosity, kinematic : No data available Viscosity, dynamic : No data available **Explosion limits** : No data available Explosive properties : No data available

## 9.2. Other information

No additional information available

# **SECTION 10: Stability and reactivity**

# 10.1. Reactivity

Oxidizing properties

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

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# Safety Data Sheet

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

### 10.2. Chemical stability

Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

#### 10.4. Conditions to avoid

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

#### 10.5. Incompatible materials

No additional information available

### 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

### alpha-amylase (9000-90-2)

LD50 oral rat > 7500 mg/kg (Rat)

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
Aspiration hazard : Not classified
Viscosity, kinematic : No data available

# **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.

alpha-amylase (9000-90-2)		
LC50 fish 1	> 100 mg/l (LC50)	
EC50 Daphnia 1	> 100 mg/l (EC50)	
Threshold limit algae 1	> 100 mg/l (EC50)	

# 12.2. Persistence and degradability

alpha-amylase (9000-90-2)	
Persistence and degradability	Readily biodegradable in water.

### 12.3. Bioaccumulative potential

alpha-amylase (9000-90-2)	
Bioaccumulative potential	Bioaccumulation unlikely.

### 12.4. Mobility in soil

No additional information available

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### 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

No additional information available

#### 15.2. International regulations

### **CANADA**

No additional information available

**EU-Regulations** 

No additional information available

**National regulations** 

No additional information available

## 15.3. US State regulations

No additional information available

### **SECTION 16: Other information**

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

Revision date : 03/21/2022

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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