

SAFETY DATA SHEET

Issue Date: 17/02/2023

Issue No. EU1101-0-02

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

1.1. Product identifier

Product name: Lipase A“Amano”12
Unique Formula Identifier: VRA0-40XS-X00P-35AS

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

Relevant identified uses: Powdered enzyme preparation
Uses advised against: No information

1.3. Details of the supplier of the safety data sheet

Name of manufacturer in Japan: AMANO ENZYME INC.
Address: 2-7, 1-chome, Nishiki, Naka-ku, Nagoya 460-8630, JAPAN
Telephone number: +81-(0)-52-211-3032
Fax number: +81-(0)-52-211-3054

Name of supplier in Europe: AMANO ENZYME EUROPE LTD.
Address: Second floor West, 25 Western Avenue, Milton Park Abingdon, Oxfordshire, OX14 4SH, U.K.
Telephone number: +44-(0)1608-644-677
e-mail address: aee.sales@amano-enzyme.com

1.4. Emergency telephone number

Telephone number: +44-(0)1608-644-677 (AMANO ENZYME EUROPE LTD.)
Remark: Only available during office hours: Mon.-Fri. 8:30am-5:00pm

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification in accordance with Regulation (EC) No 1272/2008:

Skin Irrit.2: H315
Eye Irrit.2: H319
Resp. Sens.1: H334
STOT SE.3: H335

2.2. Label elements

Hazard pictograms:



Signal Word: Danger
Hazard Statements: H315: Causes skin irritation
H319: Causes serious eye irritation
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335: May cause respiratory irritation

Precautionary Statements: [Prevention] P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P271: Use only outdoors or in a well-ventilated area.
[Emergency response] 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.
[Storage] P405: Store locked up.
[Disposal] P501: Dispose of contents/ container in accordance with related laws and local/regional regulations.

Supplemental hazard information: Not applicable

2.3. Other hazards

The product does not meet the criteria for PBT or vPvB according to Regulation (EC) No 1907/2006, Annex XIII.
The product does not have substances identified as having endocrine disrupting properties according to Regulation (EU) 2017/2100.
May form combustible dust concentrations in air.

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SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances Not applicable

3.2. Mixtures

Product Name: Lipase A“Amano”12

Chemical Characterization of Active Component: Enzyme protein

Synonyms: Triacylglycerol lipase

IUB Number: 3.1.1.3

EINECS Number: 232-619-9

Index No.: -

REACH Registration No.: -

Classification*: Skin Irrit.2: H315, Eye Irrit.2: H319, Resp. Sens.1: H334, STOT SE.3: H335

Specific Concentration limits/

M-factor/ Acute Toxicity Estimate: -

Information on ingredients:

Chemical name	CAS Number	Concentration (wt %)
Lipase	9001-62-1	80.0
Dextrin	9004-53-9	20.0

* Full texts of relevant hazard statements and risk phrases can be seen in SECTION 11 of this SDS.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

General Advice: If you feel unwell, call doctor/physician.

If Inhaled: Move the exposed person to fresh air at once. Provide rest, warmth and fresh air.
Get medical attention if any discomfort continues.

If on Skin: Remove contaminated clothing. Wash the skin immediately with water and soap.
Get medical attention if any discomfort continues.

If in Eyes: Promptly wash eyes with plenty of water while lifting the eye lids.
Make sure to remove any contact lenses from the eyes before rinsing.
Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

If swallowed: Rinse mouth thoroughly. Drink plenty of water.
Provide rest, warmth and fresh air.
Get medical attention if any discomfort continues.

Self-Protection of the First Aider: Wear appropriate eyes and skin protective equipment.

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

Causes skin irritation.
Causes serious eye irritation.
May cause allergy or asthma symptoms or breathing difficulties if inhaled.
May cause respiratory irritation.

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

No information

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SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable extinguishing media: Use water mist, dry chemical powder, fire foam or carbon dioxide.
Unsuitable extinguishing media: Applying direct water may be dangerous because fire may expand to surroundings.

5.2. Special hazards arising from the substance or mixture

General caution; powdered materials may cause dust explosions under certain conditions.
In case of fire, toxic decomposition products (carbon monoxide, carbon dioxide) may be generated.

5.3. Advice for firefighters

Cut off any ignition sources and extinguish with an appropriate agent.
Cool the surrounding tank and the buildings with direct water jet to avoid risk of fire spreading.
Take action from windward.
Keep out except responsible personnel.
Move container to a safe area if it can be done without risk.
Wear suitable self-contained breathing apparatus (with filter) and heat resistant protective clothing for eyes and skin.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel:
Wear suitable protective equipment (see SECTION 8) e.g., safety gloves, protective mask and/or protective glasses to prevent exposure.
For emergency responders:
Keep out except responsible personnel.
Wear suitable protective equipment described in “SECTION 8: Exposure controls/ personal protection”

6.2. Environmental precautions

Avoid release into the environment because product may cause local effects.

6.3. Methods and material for containment and cleaning up

Sweep up scattered materials or vacuum them using a vacuum cleaner so as not to cause dust then collect them into an empty container.
Avoid generation and spreading of dust.
Flush away spillage with plenty of water.
Do not eat or drink near handling and storage locations.
Eliminate all ignition sources (no smoking, flares, sparks or flames in immediate area).
Prevent to flowing into drains, sewers, basements or closed areas.

6.4. Reference to other sections

Refer to “SECTION 8: Exposure controls/personal protection” and “SECTION 13: Disposal considerations” as appropriate.

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SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Protective measures:	Install appropriate equipment and wear suitable protective apparatus described in "SECTION 8: Exposure controls/ personal protection". Avoid inhalation of dust and contact with skin and eyes. In case of inadequate ventilation, use respiratory protection. Wash hands thoroughly after handling. Avoid the generation of dust. Avoid acids and oxidizing substances.
Advice on general occupational hygiene:	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Do not eat, drink or smoke when using this product. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures:	Install appropriate equipment and wear suitable protective apparatus described in "SECTION 8: Exposure controls/ personal protection".
Incompatible materials:	Acids and oxidizing substances
Conditions for safe storage:	Store in tightly closed original container in a dry, cool and well-ventilated place. Store < 25 °C.
Packing material:	Use a sealed container without damage or leakage.

7.3. Specific end use(s)

Powdered enzyme preparation

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Acceptable concentration (exposure limit, biological exposure index)	
EU IOELV	Not applicable
ACGIH TLV-TWA (2019)	Not applicable
ACGIH TLV-STEL (2019)	Not applicable

8.2. Exposure controls

Appropriate engineering controls:	In a work place where dusts generate, ensure to use sealed instrument or local ventilation.
Personal protective equipment:	
Respiratory protection	In case of dust generation, wear appropriate protective mask or air aspirator as required.
Hand protection	If hand contact is possible, wear protective gloves.
Eye protection	Wear safety glasses or goggles if in eyes.
Skin and body protection	Wear protective clothing and apron if necessary.
Environmental exposure controls:	Prevent product from entering drains.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Physical state:	Powder
Colour:	White to dark brown
Odour:	Slight odor
Melting point/freezing point:	No information
Boiling point or initial boiling point and boiling range:	No information
Flammability:	No information
Lower and upper explosion limit:	Not applicable
Flash point:	Not applicable
Auto-ignition temperature:	Not applicable
Decomposition temperature:	No information
pH:	Not applicable
Kinematic viscosity:	Not applicable
Solubility:	Water: Soluble
Partition coefficient n-octanol/water (log value):	No information
Vapour pressure:	No information
Density and/or relative density:	No information
Relative vapour density:	Not applicable
Particle characteristics:	No information

9.2. Other information

9.2.1. Information with regard to physical hazard classes

Explosives:	No information
Flammable gases:	No information
Aerosols:	No information
Oxidising gases:	No information
Gases under pressure:	No information
Flammable liquids:	Not applicable
Flammable solids:	No information
Self-reactive substances and mixtures:	No information
Pyrophoric liquids:	Not applicable
Pyrophoric solids:	No information
Self-heating substances and mixtures:	No information
Substances and mixtures, which emit flammable gases in contact with water:	No information
Oxidizing liquids:	Not applicable
Oxidizing solids:	No information
Organic peroxides:	No information
Corrosive to metals:	No information
Desensitised explosives:	No information

9.2.2 Other safety characteristics

Mechanical sensitivity:	No information
Self-accelerating polymerisation temperature:	No information
Formation of explosible dust/air mixtures:	No information
Acid/alkaline reserve:	No information
Evaporation rate:	No information
Miscibility:	No information
Conductivity:	No information
Corrosiveness:	No information
Gas group:	No information
Redox potential:	No information
Radical formation potential:	No information

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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity	Stable under normal handling condition.
10.2. Chemical stability	Stable under normal handling condition.
10.3. Possibility of hazardous reactions	No hazardous reaction expected under normal handling.
10.4. Conditions to avoid	Avoid acids and oxidizing substances
10.5. Incompatible materials	Acids and oxidizing substances
10.6. Hazardous decomposition products	In case of fire, toxic decomposition products (carbon monoxide, carbon dioxide) may be generated.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Information on product:		
	Acute toxicity (oral):	No information
	Acute toxicity (dermal):	No information
	Acute toxicity (inhalation: gas):	No information
	Acute toxicity (inhalation: vapour):	No information
	Acute toxicity (inhalation: dust/mist):	No information
	Skin corrosion/irritation:	Causes skin irritation.
	Serious eye damage/irritation:	Causes serious eye irritation.
	Respiratory sensitization:	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
	Skin sensitization:	No information
	Germ cell mutagenicity:	No information
	Carcinogenicity:	No information
	Reproductive toxicity:	No information
	STOT-single exposure:	May cause respiratory irritation.
	STOT-repeated exposure:	No information
	Aspiration hazard:	No information

11.2. Information on other hazards

11.2.1. Endocrine disrupting properties	All substance are not listed in the candidate list as having endocrine disrupting properties.
11.2.2. Other information	No information

SECTION 12: ECOLOGICAL INFORMATION

Information on product		
12.1. Toxicity:	Acute (short-term) toxicity:	No information
	Chronic (long-term) toxicity:	No information
12.2. Persistence and degradability:		No information
12.3. Bioaccumulative potential:		No information
12.4. Mobility in soil:		No information
12.5. Results of PBT and vPvB assessment:		The product does not meet the PBT and vPvB criteria.
12.6. Endocrine disrupting properties:		All substance are not listed in the candidate list as having endocrine disrupting properties.
12.7. Other adverse effects:		No information

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Dispose of waste in accordance with applicable local, regional and international regulations and standards.
When disposing, consult to a certificated waste trader or local offices if they deal with the waste.
Used container should be recycled after cleaning or dispose of in compliance with related laws and local regulations.
Contents should be removed completely when dispose of empty containers.

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SECTION 14: TRANSPORT INFORMATION

14.1. UN number or ID number	Not applicable
14.2. UN proper shipping name	Not applicable
14.3. Transport hazard class(es)	Not applicable
14.4. Packing group	Not applicable
14.5. Environmental hazards	Not applicable
14.6. Special precautions for user	When transporting, avoid direct sunlight. Confirm no leakage to containers. When loading, prevent containers from falling, dropping off or damaging. Take preventive measures of collapse.
14.7. Maritime transport in bulk according to IMO instruments	Not applicable

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/ legislation specific for the substance or mixture
The product and its ingredients are not regulated by specific provisions related to protection of human health or the environment at EU level, e.g. not considered as SVHCs or POPs.
15.2. Chemical safety assessment
Not conducted

SECTION 16: OTHER INFORMATION

Revised Number: 2nd edition
First edition date: 31/12/2022
This SDS was prepared in accordance with Commission Regulation (EU) 2020/878.

DISCLAIMER

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.