

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
 Revision Date 10-May-2022  
 Version 2

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

Product name	LabAssay GLDH-Rat(A-type)
Product code	LABGLDH-RA ,FFWK : 631-47771

Manufacturer	FUJIFILM Wako Shibayagi Corporation 1062-1, Ishihara, Shibukawa, Gunma, Japan Phone : +81-279-25-0279 Fax : +81-279-23-0313
Supplier	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone : +81-6-6203-3741 Fax : +81-6-6203-2029
Emergency telephone number	+81-279-25-0279
Recommended uses and restrictions on use	For research use only

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Skin sensitization	Category 1
Short-term (acute) hazardous to the aquatic environment	Category 3

## Pictograms



## Signal word

Warning

## Hazard statements

- H315 - Causes skin irritation
- H319 - Causes serious eye irritation
- H317 - May cause an allergic skin reaction
- H402 - Harmful to aquatic life

## Precautionary statements-(Prevention)

- Wash face, hands and any exposed skin thoroughly after handling
- Wear protective gloves/protective clothing/eye protection/face protection
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Contaminated work clothing should not be allowed out of the workplace
- Avoid release to the environment

## Precautionary statements-(Response)

- IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If eye irritation persists: Get medical advice/attention.
- IF ON SKIN: Wash with plenty of soap and water
- Take off contaminated clothing and wash before reuse
- If skin irritation or rash occurs: Get medical advice/attention

**Precautionary statements-(Storage)**

- Not applicable

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant.

**Others****Other hazards**

Not available

**Section 3: COMPOSITION/INFORMATION ON INGREDIENTS****Single Substance or Mixture**

Kit (Set of mixtures)

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
(A) Standard GLDH	-	N/A	N/A	N/A	N/A
(B) Reagent 1a(R1a)	-	N/A	N/A	N/A	N/A
(C) Reagent 1b(R1b)	-	N/A	N/A	N/A	N/A
(D) Reagent 2(R2)	-	N/A	N/A	N/A	N/A

**Impurities and/or Additives :**

Not applicable

**Hazardous Component**

2,2',2"-Nitrioltriethanol &lt;1.0 %, 2-Methyl-2H-isothiazol-3-one &lt;1.2 %

**Substances Remarks:**

The composition considered to be hazardous are listed in the above. The remaining ingredients are not hazardous substances, or exist at below reportable level.

**Section 4: FIRST AID MEASURES****Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

**Section 5: FIRE FIGHTING MEASURES****Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Unsuitable extinguishing media**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Special extinguishing method**

No information available

**Special protective actions for fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

**Section 6: ACCIDENTAL RELEASE MEASURES****Personal precautions, protective equipment and emergency procedures**

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to

avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

**Recovery, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

**Handling****Technical measures**

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Avoid contact with skin, eyes or clothing. Use personal protective equipment as required.

**Storage****Safe storage conditions****Storage conditions**

Store away from sunlight in a cool (2 °C -10 °C) well-ventilated dry place.

**Safe packaging material**

No information available

**Incompatible substances**

Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
2,2',2"-Nitrilotriethanol 102-71-6	N/A	N/A	TWA: 5 mg/m <sup>3</sup>

**Personal protective equipment****Respiratory protection**

Protective mask

**Hand protection**

Protection gloves

**Eye protection**

Protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form****Appearance**

Kit (Set of mixtures)

**Odor**

No data available

**Melting point/freezing point**

No data available

**Boiling point, initial boiling point and boiling range**

No data available

**Flammability**

No data available

**Evaporation rate:**

No data available

**Flammability (solid, gas):**

No data available

**Upper/lower flammability or explosive limits**

Upper :	No data available
Lower :	No data available
Flash point	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	No data available
pH	No data available
Viscosity (coefficient of viscosity)	No data available
Dynamic viscosity	No data available
Solubilities	No data available
n-Octanol/water partition coefficient: (log Pow)	No data available
Vapour pressure	No data available
Specific Gravity / Relative density	No data available
Vapour density	No data available
Particle characteristics	No data available

**Section 10: STABILITY AND REACTIVITY****Stability**

Reactivity	No data available
Chemical stability	Stable under recommended storage conditions.

**Hazardous reactions**

None under normal processing

**Conditions to avoid**

Extremes of temperature and direct sunlight

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>), Nitrogen oxides (NO<sub>x</sub>)**Section 11: TOXICOLOGICAL INFORMATION****Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
2-Methyl-2H-isothiazol-3-one	120 mg/kg (Rat)	200 mg/kg (Rabbit)	0.11 mg/L (Rat) 4 h

Chemical Name	Acute toxicity -oral-source information	Acute toxicity -dermal-source information	Acute toxicity -inhalation gas- source information
2,2',2''-Nitrioltriethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

Chemical Name	Acute toxicity -inhalation vapor- source information	Acute toxicity -inhalation dust- source information	Acute toxicity -inhalation mist- source information
2,2',2''-Nitrioltriethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Skin irritation/corrosion**

Chemical Name	Skin corrosion/irritation source information
2,2',2''-Nitrioltriethanol	Based on the NITE GHS classification results.

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
2,2',2''-Nitrioltriethanol	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
2,2',2''-Nitrioltriethanol	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
2,2',2''-Nitrilotriethanol 102-71-6	-	Group 3	-	-

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.

## Section 12: ECOLOGICAL INFORMATION

**Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
2-Methyl-2H-isothiazol-3-one	N/A	LC50: <i>Oncorhynchus mykiss</i> 0.07 mg/L, 96h	EC50: <i>Daphnia magna</i> 0.18 mg/L, 48h
2,2',2''-Nitrilotriethanol	EC50: <i>Desmodesmus subspicatus</i> 216 mg/L 72 h EC50: <i>Desmodesmus subspicatus</i> 169 mg/L 96 h	LC50: <i>Pimephales promelas</i> 10600 - 13000 mg/L 96 h LC50: <i>Pimephales promelas</i> 1000 mg/L 96 h LC50: <i>Lepomis macrochirus</i> 450 - 1000 mg/L 96 h	EC50: <i>Daphnia magna</i> 1386 mg/L 24 h

**Other data**

Chemical Name	Short-term (acute) hazardous to the aquatic environment source information	Long-term (chronic) hazardous to the aquatic environment source information
2,2',2''-Nitrilotriethanol	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

**Persistence and degradability**

No information available

**Bioaccumulative potential**

No information available

**Mobility in soil**

No information available

**Hazard to the ozone layer**

No information available

## Section 13: DISPOSAL CONSIDERATIONS

**Waste from residues**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

**Contaminated container and contaminated packaging**

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

ADR/RID	Not regulated
UN number	-

Proper shipping name:  
 UN classification  
 Subsidiary hazard class  
 Packing group  
 Marine pollutant Not applicable

IMDG Not regulated  
 UN number -  
 Proper shipping name:  
 UN classification  
 Subsidiary hazard class  
 Packing group  
 Marine pollutant (Sea) Not applicable  
 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code No information available

IATA Not regulated  
 UN number -  
 Proper shipping name:  
 UN classification  
 Subsidiary hazard class  
 Packing group  
 Environmentally Hazardous Substance Not applicable

### Section 15: REGULATORY INFORMATION

#### International Inventories

EINECS/ELINCS -  
 TSCA -

#### Japanese regulations

Fire Service Act Not applicable  
 Poisonous and Deleterious Substances Control Law Not applicable  
 Industrial Safety and Health Act Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.381  
 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc Priority Assessment Chemical Substances (Law Article 2, Para.5)  
 Regulations for the carriage and storage of dangerous goods in ship Not applicable  
 Civil Aeronautics Law Not applicable  
 Pollutant Release and Transfer Register Law Not applicable  
 Water Pollution Control Act Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)

#### Industrial Safety and Health Law

Law Name	Chemical Name in Regulation	Ordinance Number	Weight %
Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9, and Law Art.56-1)	Triethanolamine	381	<1.0

### Section 16: OTHER INFORMATION

Key literature references and sources for data etc. NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances

Japan Industrial Safety and Health Association GHS Model SDS  
Dictionary of Synthetic Organic Chemistry , SSOCJ,  
Koudansha Scientific Co.Ltd.  
Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
etc

**Disclaimer**

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The 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, unless specified in the text.

GHS Classification is according to JIS Z7252(2019). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**