



## Safety Data Sheet

### 【1】 PRODUCT AND COMPANY INFORMATION

Product name           Morinaga Ultra sensitive Mouse Insulin ELISA Kit  
Morinaga Ultra sensitive Rat Insulin ELISA Kit

Manufacturer's name   Morinaga BioScience, Inc.  
Address                2-1-1 Shimosueyoshi, Tsurumi-ku, Yokohama-shi, 230-8504, Japan  
Section                Quality assurance department  
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SDS No.                GHS-UI-11

### 【2】 HAZARDS IDENTIFICATION

kit contains mixtures of hazardous and non-hazardous substances. Below are materials identified as potentially hazardous.

#### (1) Sulfuric acid

Human health hazard

Skin corrosion · Irritation   : Category 1A

Serious eye damage · Eye  
irritation                       : Category 1

Specific target organ  
systemic toxicity               : Category 1  
(single exposure)

Specific target organ  
systemic toxicity (repeated   : Category 1  
exposure)

Pictogram or symbol



Signal word                : Danger  
Hazard statement         : Causes severe skin burns and eye damage.  
                                  : Causes serious eye damage.  
                                  : Causes damage to organs (respiratory organs)  
                                  : Cause damage to organs (respiratory organs) through  
                                  prolonged or repeated exposure.

Cautions

Safety measures           : Do not breathe dust, mist, and vapor.  
                                  : Do not eat, drink, or smoke when using this product.  
                                  : Wear appropriate protective gloves, glasses, clothing, face  
                                  shield, or mask.  
                                  : Wash protective equipment thoroughly after use.

First-aid measures

: If inhaled: Remove victim to fresh air and keep at rest in a position  
                                  comfortable for breathing.  
: If swallowed: Rinse mouth, do not induce vomiting.  
                                  Immediately get medical treatment.  
: If in eyes: Rinse cautiously with water for several minutes.  
                                  Get medical treatment  
: If on skins: Remove contaminated clothing and the substance.  
                                  Rinse cautiously with water. Immediately get medical  
                                  treatment.  
: Wash hands thoroughly after use.

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**【3】 COMPOSITION/INFORMATION ON INGREDIENTS**

## (1) Sulfuric acid

Substance/Mixture	: Substance
Chemical name or commercial name	: Sulfuric acid
Ingredients and composition	: Water solution contains 0.5mol/L sulfuric acid.
Formula	: H <sub>2</sub> SO <sub>4</sub>
CAS-No.	: 7664-93-9
TSCA Inventory	: Registered
EINECS	: 2316395
Dangerous and hazardous ingredients	: sulfuric acid

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**【4】 FIRST AID MEASURES**

## (1) Sulfuric acid

Inhalation	: Remove the victim to fresh air, and keep him warm.
Skin contact	: Wash the affected areas under running water.
Eye contact	: Wash the affected areas under running water.
Ingestion	: Give the victim one or two glasses of water or milk with egg white. Do not induce vomiting. Get medical treatment.
Anticipated acute and delayed symptoms.	: If inhaled sulfuric acid mist, cause throat ache, cough, and shortness of breath. : If contacted skin, cause redness, ache, blister, and burn.

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**【5】 FIRE-FIGHTING MEASURES**

Extinguishing media	: This product is noncombustible.
Prohibited extinguishing media	: None
Particular fire fighting	: Move containers from fire area if it can be done without risk, if not possible, apply water from a safe distance to cool and protect surrounding area.
Protection for firefighters	: Firefighters should wear protective equipment.

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**【6】 ACCIDENTAL RELEASE MEASURES**

## (1) Sulfuric acid

Cautions for personnel	: Wear proper equipment and avoid contact with skin and inhalation of vapor.
Cautions for environmental	: Attention should be given not to cause damage to the environment by flowing of spillage to rivers. : In case of the dilution of copious water, do not cause damage to the environment by untreated wastewater.
Removal measures	: Absorb spill with paper or cloth. : Wash thoroughly with water
Prevention of second accident	: Do not contact with organic substances or combustible substances.

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**【7】 HANDLING AND STORAGE**

## Handling

Engineering measures	: Wear proper protective equipment not to contact with skin or : Handle not to generate aerosol or vapor.
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Cautions for safety handling	: Use with an enclosed system or a local exhaust ventilation.
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## Storage

Adequate storage condition	: Store in a dark, cool place and tightly closed.
Safety adequate container materials	: Glass, polyethylene, polypropylene

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**【8】 EXPOSURE CONTROL/PERSONAL PROTECTION**

## (1) Sulfuric acid

Engineering measures	: Use only with adequate ventilation and in closed systems.
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Control parameters	
ACGIH(2009)	: 0.2mg/m3 (TLV-TWA)
Protective equipment	
Respiration protective equipment	: If necessary, wear a chemical cartridge respirator with acidic grass.
Hands protective equipment	: Impervious protective gloves
Eyes protective equipment	: Safety goggles

## 【9】 PHYSICAL AND CHEMICAL PROPERTIES

### (1) Sulfuric acid

Appearance	: Liquid
Color	: Colorless
Odor	: Odorless
pH	: Strong acidity
Boiling point	: Approx. 100°C
Melting point	: Approx. -2°C
Flash point	: Noncombustible
vapor density	: 3.4
Specific gravity	: 1.030g/ml (20°C)
Solubility	: Water: Freely soluble

## 【10】 STABILITY AND REACTIVITY

### (1) Sulfuric acid

Stability	: Stable under normal usage
Reactivity	: May react with alkaline substances.
Incompatible conditions	: Light, heat
Incompatible material	: Alkaline substances
Hazardous decomposition products	: Sulfur oxides

## 【11】 TOXICOLOGICAL INFORMATION

### (1) Sulfuric acid

Acute toxicity, Oral	: Out of category
Acute toxicity, Dermal	: Not possible to classify because of insufficient data
Inhalation (vapor)	: Not possible to classify because of insufficient data
Inhalation (dust, mist)	: Out of category
	Rat oral LD50=44580mg/kg (as calculated value)
	Rat inhalation LC50=7230ppm/l/4H (as calculated value)
Skin corrosiveness	: Causes severe skin burns. (Category1A)
Irritation to skin, eyes	: Causes serious eye damage. (Category1)
	In case of human accident of sulfuric acid, severe eye damage with lysed anterior chamber of the eyes was recognized. 5% solutions caused mild irritation or rabbit eyes, and 10% solutions caused severe irritation on rabbit eyes.
Respiratory sensitization or skin sensitization	
Respiratory sensitization	: Not possible to classify because of insufficient data
Skin sensitization	: Out of category
	Sulfuric acid has no human skin sensitization.
Mutagenicity	: Not possible to classify because of insufficient data
Carcinogenic effects	: Not possible to classify because of insufficient data
Effects on the reproductive system	: Out of category
Specific target organ systemic toxicity(Single exposure)	: Cause damage to organs (respiratory organs) (category 1)
Specific target organ systemic toxicity(repeated exposure)	: Cause damage to organs (respiratory organs) through prolonged or repeated exposure. (category 1)
Aspiration hazard	: Not possible to classify because of insufficient data

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**【12】 ECOLOGICAL INFORMATION**

## (1) Sulfuric acid

## Ecotoxicity

## Fish toxicity

Acute aquatic toxicity : Not possible to classify because of insufficient data

Chronic aquatic toxicity : Not possible to classify because of insufficient data

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**【13】 DISPOSAL CONSIDERATIONS**

## (1) Sulfuric acid

## Residual disposal

Add the chemical gradually in alkaline water solution like  
: calcium hydroxide, sodium carbonate to neutralized and  
flush in a drain with a large amount of water.

## Containers

: Or entrust approved waste disposal companies with the disposal  
: In case of disposal of empty bottles, dispose bottles after  
removing the content thoroughly.

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**【14】 TRANSPORT INFORMATION**

UN class : Not applicable

UN-Number: : Not applicable

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**【15】 REGULATORY INFORMATION**

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

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**【16】 OTHER INFORMATION**

References : Encyclopaedia Chemica, Kyoritsu Shuppan Co., Ltd.

The information contained herein is based on several references and the present state of our knowledge. However, the SDS does not always cover all information about the product, handle the product carefully. The information is intended to ordinary usage, in case of particular handlings, conduct appropriate safety measurements. The information herein is only provision of information , and it does not represent a guarantee the properties of the product