



Prepared date: 01 October 2015

Revised date :

## Safety Data Sheet

### [1] PRODUCT AND COMPANY INFORMATION

Product name           Egg(Ovalbumin) ELISA Kit  
                               Casein ELISA Kit  
                               Wheat/Gluten(Gliadin) ELISA Kit  
                               Peanut ELISA Kit

Manufacturer's name   Morinaga Institute of Biological Science, Inc.  
 Address                2-1-16 Sachiura, Kanazawa-ku Yokohama 236-0003 Japan  
 Section                Quality assurance department  
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 SDS No.                GHS-SA-11

### [2] HAZARDS IDENTIFICATION

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

#### (1) Sodium lauryl sulfate, water

Human health hazard

Serious eye damage ·  
 Eye irritation                   : Category 2B

Specific target organ  
 systemic toxicity               : Category 3

Specific target organ  
 systemic toxicity               : Category 2

(repeated exposure)

Environmental hazard

Hazardous to the  
 aquatic environment           : Category 3  
 (acute hazard)

Pictogram or symbol



Signal word                : danger

Hazard statement         : Causes serious eyes irritation.  
                               May cause respiratory irritation  
                               May cause damage to organs(kidney) through prolonged or  
                               repeated exposure.  
                               Harmful to an aquatic life.

Cautions

Safety measures           : Wear appropriate protective gloves, glasses, clothing, face  
                                   shield, or mask.  
                                   : Wash protective equipment thoroughly after use.

First-aid measures        : 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.

#### (2) 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               : Category 1

(repeated 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) Sodium lauryl sulfate, water
- |                                  |  |
|----------------------------------|--|
| Substance/Mixture                | : Substance  |
| Chemical name or commercial name | : Sodium n-dodecyl sulfate   |
| Synonyms                         | : Sodium lauryl sulfate  |
| Ingredients and composition      | : Sodium lauryl sulfate, water solution. The content is not disclosed                  |
| Formula                          | : CH <sub>3</sub> (CH <sub>2</sub> ) <sub>10</sub> CH <sub>2</sub> OSO <sub>3</sub> Na |
| CAS-No.                          | : 151-21-3   |
| TSCA Inventory                   | : Registered   |
| EINECS                           | : 2057881  |
- (2) 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) Sodium lauryl sulfate, water
- |              |   |
|--------------|---|
| Inhalation   | : Remove the victim to fresh air. Blow nose and gargle  |
| Skin contact | : Wash the affected areas under running water.  |
| Eye contact  | : Wash the affected areas under running water.<br>Give the victim one or two glasses of water or saline and |
| Ingestion    | : induce vomiting. Get medical treatment.   |
- (2) 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.

#### 【5】 FIRE-FIGHTING MEASURES

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

#### 【6】 ACCIDENTAL RELEASE MEASURES

##### (1) Sodium lauryl sulfate, water

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

##### (2) 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.

#### 【7】 HANDLING AND STORAGE

##### Handling

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

##### Storage

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

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

##### (1) Sodium lauryl sulfate, water

Engineering measures	: Use only with adequate ventilation and in closed systems.
Control parameters	
ACGIH(2009)	: Not applicable
Protective equipment	
Respiration protective equipment	: Not necessary
Hands protective equipment	: Impervious protective gloves
Eyes protective equipment	: Safety goggles

##### (2) Sulfuric acid

Engineering measures	: Use only with adequate ventilation and in closed systems.
Control parameters	
ACGIH(2009)	: 0.2mg/m <sup>3</sup> (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

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## 【9】 PHYSICAL AND CHEMICAL PROPERTIES

- (1) Sodium lauryl sulfate, water
- |                  |                         |
|------------------|-------------------------|
| Appearance       | : Liquid                |
| Colour           | : Colourless            |
| Odor             | : Odorless              |
| pH               | : 7.0-9.0               |
| Boiling point    | : Not Available         |
| Melting point    | : Not Available         |
| Flash point      | : Noncombustible        |
| Specific gravity | : Approx. 1.0 g/mL      |
| Solubility       | : Water: Freely soluble |
- (2) Sulfuric acid
- |                  |                         |
|------------------|-------------------------|
| Appearance       | : Liquid                |
| Colour           | : Colourless            |
| Odor             | : Odorless              |
| pH               | : Strong acidity        |
| Boiling point    | : Approx. 100°C         |
| Melting point    | : Approx. -2°C          |
| Flash point      | : Noncombustible        |
| vapor dencity    | : 3.4                   |
| Specific gravity | : 1.030g/ml (20°C)      |
| Solubility       | : Water: Freely soluble |

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## 【10】 STABILITY AND REACTIVITY

- (1) Sodium lauryl sulfate, water
- |                                  |   |
|----------------------------------|---|
| Stability                        | : Stable under normal usage                           |
| Reactivity                       | : May react with strong oxidizing substances.         |
| Incompatible conditions          | : Light, heat   |
| Incompatible materials           | : Oxidizing substances                                |
| Hazardous decomposition products | : Toxic fumes of sulfur oxides (Sox), carbon monoxide |
- (2) 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                       |

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## 【11】 TOXICOLOGICAL INFORMATION

- (1) Sodium lauryl sulfate, water
- |   |  |
|---|--|
| Acute toxicity, Oral                            | Out of category  |
| Acute toxicity, Dermal                          | Out of category  |
| Inhalation (gas)                                | : Not possible to classify because of insufficient data  |
| Inhalation (dust, mist)                         | : Not possible to classify 1290mg/kg   |
|   | : If swallowed, may cause nausea, vomiting, abdominal pain.  |
|   | : Rat oral LD50=1290mg/kg (as sodium lauryl sulfate)   |
|   | : Rat intraperitoneal LD50=210mg/kg (as sodium lauryl sulfate)   |
| Skin corrosiveness                              | : Out of category  |
| Irritation to skin, eyes                        | : Causes serious eyes irritation.(Category 2B)<br>Since cause moderate irritation to the eyes of rabbit, it was classified into category 2B. |
| Respiratory sensitization or skin sensitization |  |
| Respiratory sensitization                       | : Not possible to classify because of insufficient data  |
| Skin sensitization                              | : Not possible to classify because of insufficient data  |
| Mutagenicity                                    | : Out of category  |
| Carcinogenic effects                            | : Not possible to classify because of insufficient data  |
| Effects on the reproductive system              | : Not possible to classify because of insufficient data  |

- Specific target organ systemic toxicity(Single exposure)  
 : Causes stimulation to respiratory organs.(Category 3)  
 Based on descriptions that respiratory tract irritation is seen by aerosol exposure in a mouse, a rabbit, and a guinea pig and that respiratory tract irritation is seen by short term exposure, it was classified into category 3.
- Specific target organ systemic toxicity(repeated exposure)  
 : May cause damage to organs(kidney) through prolonged or repeated exposure(category 2)  
 It is written that there was vacuolar degeneration of kidney tubular epithelial cells, and atrophy of kidney glomerulus. Since these symptoms were found within the scope of the guidance value of Category 2, it was classified into category 2(kidney).
- Aspiration hazard : Not possible to classify because of insufficient data
- (2) 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. (Category 1A)  
 Irritation to skin, eyes : Causes serious eye damage. (Category 1)  
 In case of human accident of sulfuric acid, severe eye
- 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) Sodium lauryl sulfate, water

#### Ecotoxicity

##### Fish toxicity

- Acute aquatic toxicity : Category 3 American Lobster LC50=0.72mg/L/96H  
 Chronic aquatic toxicity : Not possible to classify because of insufficient data

### (2) 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) Sodium lauryl sulfate, water

#### Residual disposal

- : Dilute with copious water and adjust the pH of the solution, after flush in drains.  
 : Or entrust approved waste disposal companies with the disposal
- Containers : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

### (2) Sulfuric acid

Residual disposal : Add the chemical gradually in alkaline water solution like  
 calcium hydroxide, sodium carbonate to neutralized and  
 Containers : Or entrust approved waste disposal companies with the disposal  
 : In case of disposal of empty bottles, dispose bottles after  
 removing the content thoroughly.

#### 【14】 TRANSPORT INFORMATION

##### (1) Sodium lauryl sulfate, water

UN class : Not applicable  
 UN-Number: : Not applicable

##### (2) Sulfuric acid

UN class : Class 8 (corrosive substances) packing group II  
 UN-Number: : 2796

##### Marine regulation information

UN-Number: : 2796  
 Proper shipping name : SULPHURIC ACID with not more than 51% acid  
 Class : 8  
 Sub risk : -  
 Packing group : II  
 Marine pollutant : Not applicable

##### Aviation regulation information

UN-Number: : 2796  
 Proper shipping name : Sulphuric acid with not more than 51% acid  
 Class : 8  
 Sub risk : -  
 Packing group : II

#### 【15】 REGULATORY INFORMATION

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

#### 【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 MSDS 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