

Safety Data Sheet

【1】 PRODUCT AND COMPANY INFORMATION

Product name Egg (Ovalbumin) ELISA Kit II
 Total Milk ELISA Kit II
 Casein ELISA Kit II
 Beta-lactoglobulin ELISA Kit II
 Wheat/Gluten (Gliadin) ELISA Kit II
 Peanut ELISA Kit II
 Buckwheat ELISA Kit II
 Soya ELISA Kit II
 Hazelnut ELISA Kit II
 High Sensitive Peanut ELISA Kit II
 Sesame ELISA Kit II
 Crustacean ELISA Kit II
 Walnut ELISA Kit II
 Almond ELISA Kit II

Manufacturer's name Morinaga BioScience, Inc.
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 SDS No. GHS-SF-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 : Category 2B
 Eye irritation
 Specific target organ : Category 3
 systemic toxicity
 Specific target organ : Category 2
 systemic toxicity
 (repeated exposure)
 Environmental hazard
 Hazardous to the : Category 3
 aquatic environment
 (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.

First-aid measures : Wash protective equipment thoroughly after use.
 : 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) Sodium sulfite, water
Human health hazard
Serious eye damage ▪
Eye irritation
Pictogram or symbol

: Category 2B



Signal word
Hazard statement
Cautions

: Warning
: Causes serious eyes irritation.

First-aid measures

: If in eyes: Rinse cautiously with water for several minutes.
Get medical treatment
Wash hands thoroughly after handling.

(3) Sulfuric acid
Human health hazard
Skin corrosion ▪ Irritation
Serious eye damage ▪
Eye irritation
Specific target organ
systemic toxicity
(single exposure)
Specific target organ
systemic toxicity
(repeated exposure)

: Category 1A

: Category 1

: Category 1

: Category 1

Pictogram or symbol



Signal word
Hazard statement

: Danger
: 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.

First-aid measures

: Wash protective equipment thoroughly after use.
: 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.

【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 : $\text{CH}_3(\text{CH}_2)_{10}\text{CH}_2\text{OSO}_3\text{Na}$
 - CAS-No. : 151-21-3
 - TSCA Inventory : Registered
 - EINECS : 2057881
- (2) Sodium sulfite, water
- Substance/Mixture : Substance
 - Chemical name or commercial name : Sodium sulfite, water
 - Ingredients and composition : Sodium sulfite, water solution. The content is not disclosed
 - Formula : Na_2SO_3
 - CAS-No. : 7757-83-7
 - TSCA Inventory : Registered
 - EINECS : 2318214
- (3) 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_2SO_4
 - CAS-No. : 7664-93-9
 - TSCA Inventory : Registered
 - EINECS : 2316395
 - Dangerous and hazardous ingredients : sulfuric acid

【4】 FIRST AID MEASURES

- (1) Sodium lauryl sulfate, water
- (2) Sodium sulfite, 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.
 - Ingestion : Give the victim one or two glasses of water or saline and induce vomiting. Get medical treatment.
- (3) 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
- 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.

【6】 ACCIDENTAL RELEASE MEASURES

(1) Sodium lauryl sulfate, water

(2) Sodium sulfite, 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

(3) 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 : Glass, polyethylene, polypropylene materials

【8】 EXPOSURE CONTROL/PERSONAL PROTECTION

(1) Sodium lauryl sulfate, water

(2) Sodium sulfite, 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

(3) Sulfuric acid

- Engineering measures : Use only with adequate ventilation and in closed systems.
- 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) Sodium lauryl sulfate, water

- Appearance : Liquid
- Color : Colorless
- 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) Sodium sulfite, water

Appearance : Liquid
Color : Colorless
Odor : Odorless
pH : 9.0-11.0
Boiling point : Not Available
Melting point : Not Available
Flash point : Noncombustible
Specific gravity : Approx. 1.1 g/mL
Solubility : Water: Freely soluble

(3) 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) 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) Sodium sulfite, water

Stability : Stable under normal usage
Reactivity : oxidized gradually in air
Incompatible conditions : Light, heat
Incompatible materials : Oxidizing substances
Hazardous decomposition : Sulfur oxides

(3) 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) 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 because of insufficient data
: 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)
: 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 mouse, a rabbit, and agonies pig and that respiratory tract irritation is seen by short terms exposure, it was classified into category 3.
 Specific target organ systemic toxicity(repeated exposure)
 : May cause damage to organs(kidney) through prolonged ore repeated exposure(category 2)
 It is Witten that there were vacuolar degeneration of kidney tubular epithelial cells, and atrophic of kidney glomerulus. Since these symptoms were found within the scope of the guidance value of Category2, it was classified into category 2(kidney).
 Aspiration hazard : Not possible to classify because of insufficient data

(2) Sodium sulfite, water

Acute toxicity, Oral : Out of category
 Acute toxicity, Dermal : Not possible to classify because of insufficient data
 Inhalation (gas) : Not possible to classify because of insufficient data
 Inhalation (dust, mist) : Not possible to classify because of insufficient data (as Sodium sulfite)
 Rat oral LD50=3560mg/kg
 Skin corrosiveness : Out of category
 Irritation to skin, eyes : Causes serious eyes irritation.(Category 2B)
 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)
 : Not possible to classify because of insufficient data
 Sulfite salt is oxidized and is converted to sulfate ion inside bodies, but digestive organs are irritated because of isolated sulfite ion. If human swallowed 4g of the substance, they have poisoning digestive organs.However,it is not possible to classify because of insufficient date
 Specific target organ systemic toxicity(repeated exposure)
 : Not possible to classify because of insufficient data
 Aspiration hazard : Not possible to classify because of insufficient data

(3) 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
 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

【12】 ECOLOGICAL INFORMATION

(1) Sodium lauryl sulfate, water

Eco toxicity

Fish toxicity

Acute aquatic toxicity : Category3 American Lobster LC50=0.72mg/L/96H
Chronic aquatic toxicity : Not possible to classify because of insufficient data

(2) Sodium sulfite, water

(3) Sulfuric acid

Eco toxicity

Fish toxicity

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

【13】 DISPOSAL CONSIDERATIONS

(1) Sodium lauryl sulfate, water

(2) Sodium sulfite, water

Residual disposal

: Dilute with copious water and adjust the pH of the solution.
: After that, 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.

(3) 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.
: Or entrust approved waste disposal companies with the disposal
Containers : In case of disposal of empty bottles, dispose bottles after removing the content thoroughly.

【14】 TRANSPORT INFORMATION

UN class : Not applicable

UN-Number: : Not applicable

【15】 REGULATORY INFORMATION

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

【16】 OTHER INFORMATION

References : Encyclopedia Chemical, 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