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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

Manufacturer's name	Morinaga Institute of Biological Science, Inc.
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Section	Quality assurance department
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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

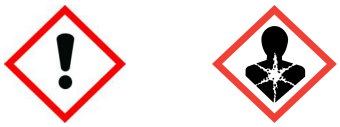
Human health hazard

Serious eye damage・Eye irritation	: Category 2B
Specific target organ systemic toxicity	: Category 3
Specific target organ systemic toxicity (repeated exposure)	: Category 2

Environmental hazard

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

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) Sodium sulfite, water

Human health hazard

Serious eye damage・Eye irritation	:	Category 2B
Pictogram or symbol		
Signal word	:	Warning
Hazard statement	:	Causes serious eyes irritation.
Cautions		
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	:	Category 1A
Serious eye damage・Eye irritation	:	Category 1
Specific target organ systemic toxicity (single exposure)	:	Category 1
Specific target organ systemic toxicity (repeated exposure)	:	Category 1
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.

【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	:	CH3(CH2)10CH2OSO3Na
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	:	Na2SO3
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	:	H2SO4
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 materials	:	Glass, polyethylene, polypropylene

【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℃
Melting point	:	Approx. -2℃
Flash point	:	Noncombustible
vapor density	:	3.4
Specific gravity	:	1.030g/ml (20℃)
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