



Prepared date: 1 October 2015

Revised date : 1 January 2023

Safety Data Sheet

【1】PRODUCT AND COMPANY INFORMATION

| | |
|---------------------|--|
| Product name | Morinaga Mouse/Rat Leptin ELISA Kit |
| Manufacturer's name | Morinaga Institute of Biological Science, Inc. |
| Address | 2-1-1 Shimosueyoshi, Tsurumi-ku, Yokohama-shi, 230-8504, Japan |
| Section | Quality assurance department |
| Telephone | +81-45-586-2514 |
| Fax | +81-45-586-2517 |
| SDS No. | GHS-LE-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 (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.

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) 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 ₂ SO ₄ |
| CAS-No. | : 7664-93-9 |
| TSCA Inventory | : Registered |
| EINECS | : 2316395 |
| Dangerous and hazardous ingredients | : sulfuric acid |

【4】 FIRST AID MEASURES

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|---|--|
| (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. |

【5】 FIRE-FIGHTING MEASURES

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|--------------------------------|--|
| 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) 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

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|-------------------------------------|--|
| Handling | |
| Engineering measures | : Wear proper protective equipment not to contact with skin or inhale the vapor. |
| | : 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) 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 gas.
 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 on 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
 In vitro studies regarding both germ cells and somatic cells
 Carcinogenic effects : Not possible to classify because of insufficient data

Effects on the reproductive system

: Out of category

Inhalation studies of sulfuric acid of sulfuric acid of rabbits and mice during the period of embryo organogenesis, the dose that does not recognized toxicity on dams appears no embryo toxicity and tetraagenicity on both species. As the main toxicity is direct irritation and corrosion on the local tissue, there is no concern of reproductive toxicity.

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) 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

【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.

: 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 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