



## Safety Data Sheet

### 1. Identification of the substance/mixture and of the company/undertaking

#### Product identifier:

Product name: Bismuth(III)nitrate,5-hydrate

Product code(SDS NO): 0905E-1

#### Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku,Osaka 540-0029,JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

e-mail address: kagakuhinanzenkanri@kishida.co.jp

### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

#### Physical and chemical hazards

Oxidizing solids: Category 2

#### HEALTH HAZARDS

Specific target organ toxicity – single exposure: Category 1(nervous system, kidney, articulation of the bone)

Specific target organ toxicity – repeated exposure: Category 1(nervous system, kidney, articulation of the bone)

(Note) GHS classification without description: Not applicable/Out of classification/Not classifiable

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

May intensify fire; oxidizer

Causes damage to organs after single exposure

Causes damage to organs through prolonged or repeated exposure

#### PRECAUTIONARY STATEMENT

#### Prevention

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Keep/Store away from clothing/combustible materials.

Take any precaution to avoid mixing with combustibles and/or other incompatible materials.

Do not breathe dust/fume/gas/mist/vapors/spray.

Wash contaminated parts thoroughly after handling.

Wear protective gloves and face protection.

Do not eat, drink or smoke when using this product.

#### Response

In case of fire: Use appropriate media other than water for extinction.

Get medical advice/attention if you feel unwell.

#### Disposal

Dispose of contents/container in accordance with local/national regulation.

**Physical and Chemical hazards**

Oxidizing material. Organic or combustible material may catch fire in contact with it.

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**3. Composition/information on ingredients****Mixture/Substance selection:****Substance**

Ingredient name:Bismuth(III)nitrate,5-hydrate

Content(%):98(min)

Chemical formula:Bi(NO<sub>3</sub>)<sub>3</sub>·5H<sub>2</sub>O

Chemicals No, Japan:1-97

CAS No.:10035-06-0

MW:485.07

Note : The figures shown above are not the specifications of the product.

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**4. First-aid measures****Descriptions of first-aid measures****General measures**

Get medical attention/advice if you feel unwell.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

**IF ON SKIN (or hair)**

Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

**IF IN EYES**

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

**IF SWALLOWED**

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.

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**5. Fire-fighting measures****Extinguishing media****Suitable extinguishing media**

Use appropriate extinguishing media suitable for surrounding facilities.

**Specific hazards arising from the substance or mixture**

Containers may explode when heated.

Fire may produce irritating, corrosive and/or toxic gases.

**Advice for firefighters****Specific fire-fighting measures**

Evacuate non-essential personnel to safe area.

**Special protective equipment and precautions for fire-fighters**

Wear fire/flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

**6. Accidental release measures**

## Personnel precautions, protective equipment and emergency procedures

Ventilate area after material pick up is complete.

Wear proper protective equipment.

## Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

## Preventive measures for secondary accident

Collect spillage.

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**7. Handling and storage**

## Precautions for safe handling

## Preventive measures

(Exposure Control for handling personnel)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

Keep/Store away from clothing/combustible materials.

## Exhaust/ventilator

Exhaust/ventilator should be available.

## Safety treatments

Avoid contact with skin.

Avoid contact with eyes.

## Safety Measures/Incompatibility

Take any precaution to avoid mixing with combustibles/incompatible materials.

Wear protective gloves, protective clothing or face protection.

When using do not eat, drink or smoke.

## Conditions for safe storage, including any incompatibilities

## Recommendation for storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

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**8. Exposure controls/personal protection**

## Exposure controls

## Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

## Individual protection measures

## Respiratory protection

Wear respiratory protection.

## Hand protection

Wear protective gloves.

## Eye protection

Wear eye/face protection.

## Safety and Health measures

Wash ... thoroughly after handling.

Do not eat, drink or smoke when using this product.



## 9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

Appearance: Crystal

Color: Colorless~White

Odor: Nitric acid odor

Phase change temperature

Initial Boiling Point/Boiling point: 80°C

Melting point/Freezing point: 30°C

Decomposition temperature data N.A.

Flash point data N.A.

Auto-ignition temperature data N.A.

Explosive properties data N.A.

Vapor pressure data N.A.

Vapor density data N.A.

Specific gravity/Density data N.A.

Solubility

Solubility in water: practically insoluble

n-Octanol /water partition coefficient data N.A.

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## 10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Organic material, Combustible material

Hazardous decomposition products

Nitrogen oxides, Bismuth

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## 11. Toxicological Information

Information on toxicological effects

No Acute toxicity data available

No Irritant properties data available

No Allergenic and sensitizing effects data available

No Mutagenic effects data available

No Carcinogenic effects data available

No Teratogenic effects data available

No reproductive toxicity data available

Delayed and immediate effects and also chronic effects from short- and long-term exposure

STOT

STOT-single exposure

[cat.1]

[Company proprietary data]

(Bismuth(III)nitrate,5-hydrate) (As Bismuth(III)nitrate) nervous system, kidney, articulation of the bone

STOT-repeated exposure

[cat.1]

[Company proprietary data]

(Bismuth(III)nitrate,5-hydrate) (As Bismuth(III)nitrate) nervous system, kidney,



articulation of the bone

No Aspiration hazard data available

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## 12. Ecological Information

Ecotoxicity

No Aquatic toxicity data available

No Persistence and degradability data available

No Bioaccumulative potential data available

No Mobility in soil data available

Ozone depleting chemical data not available

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## 13. Disposal considerations

Waste treatment methods

Dispose of contents/container in accordance with local/national regulation.

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## 14. Transport Information

UN number: 1477

UN proper shipping name:

NITRATES, INORGANIC, N.O.S

Transport hazard class(es): 5.1

Packing group: II

ERG GUIDE NO.: 140

Special provisions NO.: A3; A803

Environmental hazards

MARPOL Annex V – Substances Harmful to Marine Environment

Specific target organ toxicity – repeated exposure: cat.1

Bismuth(III)nitrate,5-hydrate

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## 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

US major regulations

TSCA

Bismuth(III)nitrate,5-hydrate

Other regulatory information

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

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## 16. Other information

GHS classification and labelling

Ox. Sol. 2: H272 May intensify fire; oxidizer

STOT SE 1: H370 Causes damage to organs after single exposure

STOT RE 1: H372 Causes damage to organs through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 19th edit., 2015 UN

Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2017 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>



Bismuth(III)nitrate,5-hydrate,KISHIDA CHEMICAL CO., LTD.,0905E-1,18/05/2018

Supplier's data/information

Hazard Communication Standard – 2012

General Disclaimer

This information contained in this data sheet represents the best information currently available to us. However, no warranty is made with respect to its completeness and we assume no liability resulting from its use. It are advised to make their own tests to determinate the safety and suitability of each such product or combination for their own purposes.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2016).