



## Safety Data Sheet

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

#### Product identifier:

Product name: Sodium molybdate,2-hydrate

SDS No. : 7208E-2

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

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

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

Division: Chemical Safety Management Department

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

##### HEALTH HAZARDS

Acute toxicity (Oral): Category 3

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2

Germ cell mutagenicity: Category 2

Carcinogenicity: Category 2

Reproductive toxicity: Category 2

Specific target organ toxicity – single exposure: Category 3 (Respiratory tract irritation)

Specific target organ toxicity – repeated exposure: Category 1(Systemic toxicity, Testes)

Specific target organ toxicity – repeated exposure: Category 2(Kidney)

#### Label elements



Signal word: Danger

#### HAZARD STATEMENT

Toxic if swallowed

Causes skin irritation

Causes serious eye irritation

Suspected of causing genetic defects

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause respiratory irritation

Causes damage to organs through prolonged or repeated exposure(Systemic toxicity, Testes)

May cause damage to organs through prolonged or repeated exposure(Kidney)

#### PRECAUTIONARY STATEMENT

##### Prevention

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

Use only outdoors or in a well-ventilated area.

Wash contaminated parts thoroughly after handling.

Wear protective gloves.

Wear eye protection/face protection.



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

**Response**

Get medical advice/attention if you feel unwell.

IF exposed or concerned: Get medical advice/attention.

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

IF ON SKIN: Wash with plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.

Take off contaminated clothing and wash it before reuse.

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: Immediately call a POISON CENTER/doctor/physician.

IF SWALLOWED: Rinse mouth.

**Storage**

Store in a well-ventilated place. Keep container tightly closed.

**Disposal**

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

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

Ingredient name: Sodium molybdate, 2-hydrate

Content (%): 98(min)

Chemical formula:  $\text{Na}_2\text{MoO}_4 \cdot 2\text{H}_2\text{O}$

Chemicals No, Japan: 1-478

CAS No.: 10102-40-6

MW: 241.95

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 advice/attention if you feel unwell.

**IF INHALED**

Remove person to fresh air and keep comfortable for breathing.

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

**IF ON SKIN (or hair)**

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

Wash with plenty of soap and water.

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.

Immediately call a POISON CENTER/doctor/physician.



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## 5. Fire-fighting measures

### Extinguishing media

#### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

#### Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

### 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 resistant or flame 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.

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## 6. Accidental release measures

### Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

### Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Avoid raising dust.

### 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, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)

Avoid contact with skin.

Avoid contact with eyes.

#### Safety Measures

Use only outdoors or in a well-ventilated area.

Wear protective gloves, protective clothing or face protection.

Wear eye protection/face protection.

When using do not eat, drink or smoke.

#### Any incompatibilities

See "10.Stability and Reactivity"

#### Advice on general occupational hygiene



Wash contaminated parts thoroughly after handling.  
Do not eat, drink or smoke when using this product.  
Take off contaminated clothing and wash it before reuse.

**Storage**

Conditions for safe storage

Keep container tightly closed.

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

Container and packaging materials for safe handling

Glass

Polyethylene

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**8. Exposure controls/personal protection**

Control parameters

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.

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**9. Physical and Chemical Properties**

Information on basic physical and chemical properties

Physical state: Crystals or crystalline powder

Color: Colorless to white

Odor: Odourless

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH: 9-10 (5w/v%, 25°C)

Kinematic viscosity data is not available.

Solubility:

Solubility in water: Soluble

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density: 2.37

Relative vapor density (Air=1) data is not available.

Particle characteristics data is not available.



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## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Stable under normal storage/handling conditions.

### Possibility of hazardous reactions

(As sodium molybdate, anhydride)

Decomposes on heating. This produces toxic fumes including sodium oxide. Reacts violently with halogens. This generates fire and explosion hazard. (ICSC 1010)

### Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

### Incompatible materials

Halogens

### Hazardous decomposition products

Sodium oxide

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## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

(As sodium molybdate, anhydride)

rat LD50=250 mg/kg (Risk Assessment of the Ministry of the Environment vol.10(2012))

#### Irritant properties

##### Skin corrosion/irritation

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

As sodium molybdate, anhydride category 2

##### Serious eye damage/irritation

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

As sodium molybdate, anhydride category 2

Allergenic and sensitizing effects data is not available.

#### Germ cell mutagenicity

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

As sodium molybdate, anhydride category 2

#### Carcinogenicity

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

As sodium molybdate, anhydride category 2

#### Reproductive toxicity

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

As sodium molybdate, anhydride category 2

#### STOT

##### STOT-single exposure

[cat.3 (resp. irrit.)]

[Company proprietary data]

(Sodium molybdate, 2-hydrate)



Respiratory tract irritation (As sodium molybdate, anhydride)

STOT-repeated exposure

[cat.1]

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

(As sodium molybdate, anhydride) Systemic toxicity, Testes

[cat.2]

[Company proprietary data]

(Sodium molybdate, 2-hydrate)

(As sodium molybdate, anhydride) Kidney

Aspiration hazard data is not available.

Information on other hazards

May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

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## 12. Ecological Information

Ecotoxicity

Ecotoxicity data is not available.

Persistence and degradability

Persistence and degradability data is not available.

Bioaccumulative potential

Bioaccumulative potential data is not available.

Mobility in soil

Mobility in soil data is not available.

Other adverse effects

Ozone depleting chemical data is not available.

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## 13. Disposal considerations

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

Waste treatment methods

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

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## 14. Transport Information

UN No. or ID No.: 3288

UN Proper Shipping Name :

TOXIC SOLID, INORGANIC, N.O.S.

Class or division (Transport hazard class) : 6.1

Packing group : III

ERG GUIDE No.: 151

Special provisions No.: 223; 274

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3288

Proper Shipping Name :

TOXIC SOLID, INORGANIC, N.O.S.

Class or division : 6.1

Packing group : III

Special provisions No.: 223; 274

IATA Dangerous Goods Regulations

UN No.: 3288



Proper Shipping Name :  
TOXIC SOLID, INORGANIC, N.O.S.  
Class or division : 6.1  
Hazard labels : Toxic  
Packing group : III  
Special provisions No.: A3; A5

**Environmental hazards**

MARPOL Annex III – Prevention of pollution by harmful substances  
Marine pollutants (yes/no) : no  
MARPOL Annex V – Prevention of pollution by garbage discharge  
Specific target organ toxicity – repeated exposure: cat.1  
Sodium molybdate, 2-hydrate

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**15. Regulatory Information**

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

Chemicals listed in TSCA Inventory

Sodium molybdate, 2-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

Acute Tox. 3: H301 Toxic if swallowed

Skin Irrit. 2: H315 Causes skin irritation

Eye Irrit. 2: H319 Causes serious eye irritation

Muta. 2: H341 Suspected of causing genetic defects

Carc. 2: H351 Suspected of causing cancer

Repr. 2: H361 Suspected of damaging fertility or the unborn child

STOT SE 3: H335 May cause respiratory irritation

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

STOT RE 2: H373 May cause damage to organs through prolonged or repeated exposure

Reference Book

Globally Harmonized System of classification and labelling of chemicals, UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 21th edit., 2019 UN

IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (62nd Edition) 2021

2020 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2021 TLVs and BEIs. (ACGIH)

Supplier's data/information

General Disclaimer

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your safety.

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 2020).