

Safety Data Sheet

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

Product identifier:

Product name: 12-Molybdo(VI) phosphoric acid n-hydrate

Product code (SDS NO): 84235jise-2

Details of the supplier of the safety data sheet

Manufacturer/Supplier: JUNSEI CHEMICAL CO., LTD.

Address: 1-6, Ohmano-cho, Koshigaya-shi, Saitama 343-0844, Japan

Division: Quality Assurance Department

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2. Hazards identification

GHS classification and label elements of the product

Classification of the substance or mixture

HEALTH HAZARDS

Skin corrosion/irritation: Category 1

Serious eye damage/eye irritation: Category 1

Germ cell mutagenicity: Category 2

Carcinogenicity: Category 2

Reproductive toxicity: Category 2

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

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

Label elements



Signal word: Danger

HAZARD STATEMENT

Causes severe skin burns and eye damage

Causes serious eye damage

Suspected of causing genetic defects

Suspected of causing cancer

Suspected of damaging fertility or the unborn child

May cause respiratory irritation

PRECAUTIONARY STATEMENT

Prevention

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

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, protective clothing or face protection.

Wear eye protection/face protection.

Use personal protective equipment as required.

Response

IF exposed or concerned: Get medical advice/attention.

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Immediately call a POISON CENTER or doctor/physician.

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

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
Wash contaminated clothing before reuse.

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

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

Storage

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

Store locked up.

Disposal

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

3. Composition/information on ingredients

Mixture/Substance selection:

Substance

Common name, synonyms: Phosphomolybdic acid n-hydrate

Ingredient name:12-Molybdo(VI)phosphoric acid n-hydrate

Content (%):ca. 100

Chemical formula:H3Mo12O40P•nH2O

Chemicals No, Japan:1-714

CAS No.:51429-74-4[12026-57-2(anh)]

ECNO:234-713-5(anh)

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

4. First-aid measures

Descriptions of first-aid measures

General measures

IF exposed or concerned: Get medical attention/advice.

Immediately call a POISON CENTER or doctor/physician.

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. Do NOT induce vomiting.

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

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

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Specific hazards arising from the substance or mixture

- Containers may explode when heated.
- Fire may produce irritating, corrosive and/or toxic gases.
- Runoff from fire control or dilution water may cause pollution.

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

- Keep unauthorized personnel away.
- In case of contact with substance, immediately flush skin or eyes with running water for at least 20 minutes.
- Ventilate area until material pick up is complete.
- Wear proper protective equipment.
- PUBLIC SAFETY:** Ventilate closed spaces before entering.

Environmental precautions

- Avoid release to headsprings, rivers, lakes, ocean and groundwater.

Methods and materials for containment and cleaning up

- Absorb or cover with dry earth, sand or other non-combustible material and transfer to containers.

Preventive measures for secondary accident

- Collect spillage.
- Stop leak if you can do it without risk.
- ELIMINATE** all ignition sources (no smoking, flares, sparks or flames in immediate area).
- Prevent entry into waterways, sewers, basements or confined areas.

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.

Exhaust/ventilator

- Exhaust/ventilator should be available.

Safety treatments

- Avoid contact with skin.
- Avoid contact with eyes.
- Avoid breathing dust, fume, gas, mist or vapor.

Safety Measures/Incompatibility

- Obtain special instructions before use.
- Do not handle until all safety precautions have been read and understood.
- Use only outdoors or in a well-ventilated area.
- Wear protective gloves, protective clothing or face protection.
- Wear eye protection/face protection.
- Use personal protective equipment as required.
- When using do not eat, drink or smoke.

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Conditions for safe storage, including any incompatibilities

Recommendation for storage

- Store in a well-ventilated place. Keep container tightly closed.
- Keep cool. Protect from sunlight.
- Store locked up.

8. Exposure controls/personal protection

Control parameters

No control value data available in MHLW

Adopted value

No Adopted value data available in JSOH

ACGIH(1999) TWA: (soluble compounds)0.5mg-Mo/m³(R) (LRT irr)

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.
- Consult with your glove and/or personnel equipment manufacturer for selection of appropriate compatible materials.

Eye protection

Wear eye/face protection.

Safety and Health measures

- Wash contaminated parts thoroughly after handling.
- Wash contaminated clothing before reuse.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Physical properties

- Appearance: Crystals or crystalline powder
- Color: Yellow
- Odor: None
- pH: ca. 1~2(1%(w/v))

Phase change temperature

- Initial Boiling Point/Boiling point data N.A.
- Melting point/Freezing point: 78~90°C
- Decomposition temperature: >700°C
- 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: Soluble
- n-Octanol/water partition coefficient data N.A.

10. Stability and Reactivity

Chemical stability

Stable under normal storage/handling conditions.

Conditions to avoid

Contact with incompatible materials.

Heat.

Incompatible materials

Strong bases

Hazardous decomposition products

Molybdenum oxides, Phosphorus oxides

11. Toxicological Information

Information on toxicological effects

No Acute toxicity data available

Irritant properties

Skin corrosion/irritation

R34(EU-Annex I)

No Allergenic and sensitizing effects data available

Germ cell mutagenicity

[GHS Cat. Japan, base data]

(12-Molybdo(VI)phosphoric acid)

cat. 2; mouse for CAS No.7631-95-0 : ACGIH (7th, 2003) et al.

Carcinogenicity

[GHS Cat. Japan, base data]

(12-Molybdo(VI)phosphoric acid)

cat.2; ACGIH A3 (ACGIH 7th, 2003)

Reproductive toxicity

[GHS Cat. Japan, base data]

(12-Molybdo(VI)phosphoric acid n-hydrate)

cat. 2; rat for CAS7631-95-0 : MOE risk assessment, 2012

No Teratogenic effects data available

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

STOT

STOT-single exposure

[cat.3 (resp. irrit.)]

[GHS Cat. Japan, base data]

(12-Molybdo(VI)phosphoric acid n-hydrate)

respiratory tract irritation (DFGOT vol. 18, 2002 et al.)

No Aspiration hazard data available

Additional data

Reference data: This product anhydride (CAS No.12026-57-2)

12. Ecological Information

Ecotoxicity

No Aquatic toxicity data available

No Persistence and degradability data available

No Bioaccumulative potential data available

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13. Disposal considerations

Waste treatment methods

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

14. Transport Information

UN No, UN CLASS

UN No.: 3260

Proper Shipping Name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Class or division : 8

Packing group : III

ERG GUIDE No.: 154

IMDG Code (International Maritime Dangerous Goods Regulations)

UN No.: 3260

Proper Shipping Name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Class or division : 8

Packing group : III

IATA Dangerous Goods Regulations

UN No.: 3260

Proper Shipping Name : CORROSIVE SOLID, ACIDIC, INORGANIC, N.O.S.

Class or division : 8

Hazard labels : Corrosive

Packing group : III

Environmental hazards

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

15. Regulatory Information

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

Environmental hazards

US major regulations

TSCA

12-Molybdo(VI)phosphoric acid (anh)

Other regulatory information

We are not able to check up the regulatory information in regard to the substances in your country or region, therefore, we request this matter would be filled by your responsibility.

Regulatory information with regard to this substance in your country or in your region should be examined by your own responsibility.

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

Regulatory information in this section are limited to intentional ingredient(s) and/or impurities informed by supplier(s).

16. Other information

GHS classification and labelling

Skin Corr. 1: H314 Causes severe skin burns and eye damage

Eye Dam. 1: H318 Causes serious eye damage

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

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Reference Book

Globally Harmonized System of classification and labelling of chemicals, (5th ed., 2013), UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)
IATA Dangerous Goods Regulations (60th Edition) 2019
Classification, labelling and packaging of substances and mixtures (table3-1 ECNO6182012)
2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2018 TLVs and BEIs. (ACGIH)
<http://monographs.iarc.fr/ENG/Classification/index.php>
Supplier's data/information
NITE Chemical Risk Information Platform (NITE-CHRIP)
https://www.nite.go.jp/en/chem/chrip/chrip_search/systemTop
GHS Classification Guidance for Enterprises 2013 Revised Edition (Aug. 2013, METI)

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 is 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 2017).