

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision Date** 16-Jun-2020  
 Version 3.03

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product name</b>	Ammonium Molybdate Tetrahydrate
<b>Product code</b>	018-06901,016-06902,010-06905
<b>Manufacturer</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
<b>Supplier</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-2029
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research purposes

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

Classification of the substance or mixture

Acute toxicity - Oral

Category 4

Serious eye damage/eye irritation

Category 2A

Carcinogenicity

Category 2

Reproductive Toxicity

Category 2

Specific target organ toxicity (single exposure)

Category 3

Category 3 Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Category 2

Category 2 kidneys

## Pictograms



Signal word

Warning

## Hazard statements

H319 - Causes serious eye irritation

H302 - Harmful if swallowed

H351 - Suspected of causing cancer

H361 - Suspected of damaging fertility or the unborn child

H335 - May cause respiratory irritation

H373 - May cause damage to the following organs through prolonged or repeated exposure: kidneys

## Precautionary statements-(Prevention)

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required.
- Wash face, hands and any exposed skin thoroughly after handling

- Do not eat, drink or smoke when using this product
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area

**Precautionary statements-(Response)**

- IF exposed or concerned: 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 INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell
- Rinse mouth.

**Precautionary statements-(Storage)**

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

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Substance

**Formula** (NH<sub>4</sub>)<sub>6</sub>Mo<sub>7</sub>O<sub>24</sub>·4H<sub>2</sub>O

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Hexaammonium Heptamolybdate Tetrahydrate	99.0	1235.93	(1)-389	公表	12054-85-2

**Impurities and/or Additives :** Not applicable

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

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

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

### Section 5: FIRE FIGHTING MEASURES

**Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

**Unsuitable extinguishing media**

No information available

**Specific hazards arising from the chemical product**

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

**Special extinguishing method**

No information available

**Special protective actions for**

**fire-fighters**

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

## Section 6: ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

**Environmental precautions**

To be careful not discharged to the environment without being properly handled waste water contaminated.

**Methods and materials for contaminant and methods and materials for cleaning up**

Sweep up and gather scattered particles, and collect it in an empty airtight container.

**Recovery, neutralization**

No information available

**Secondary disaster prevention measures**

Clean contaminated objects and areas thoroughly observing environmental regulations.

## Section 7: HANDLING AND STORAGE

**Handling****Technical measures**

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

**Precautions**

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

**Safety handling precautions**

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

**Storage****Safe storage conditions****Storage conditions**

Store away from sunlight in well-ventilated place at room temperature (preferably cool).  
Keep container tightly closed.

**Safe packaging material**

Polyethylene

**Incompatible substances**

Strong oxidizing agents

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

Chemical Name	JSOH (Japan)	ISHL (Japan)	ACGIH
Hexaammonium Heptamolybdate Tetrahydrate 12054-85-2	N/A	N/A	TWA: 0.5 mg/m <sup>3</sup> Mo respirable particulate matter

**Personal protective equipment****Respiratory protection**

Dust mask

**Hand protection**

Protection gloves

**Eye protection**

protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

<b>Form</b>	
<b>Color</b>	white
<b>Appearance</b>	crystalline powder
<b>Odor</b>	No data available
<b>Melting point/freezing point</b>	No data available
<b>Boiling point, initial boiling point and boiling range</b>	No data available
<b>Flammability</b>	No data available
<b>Evaporation rate:</b>	No data available
<b>Flammability (solid, gas):</b>	No data available
<b>Upper/lower flammability or explosive limits</b>	
<b>Upper :</b>	No data available
<b>Lower :</b>	No data available
<b>Flash point</b>	No data available
<b>Auto-ignition temperature:</b>	No data available
<b>Decomposition temperature:</b>	No data available
<b>pH</b>	No data available
<b>Viscosity (coefficient of viscosity)</b>	No data available
<b>Dynamic viscosity</b>	No data available
<b>Solubilities</b>	water : slightly freely soluble . Ethanol : slightly soluble .
<b>n-Octanol/water partition coefficient:(log Pow)</b>	No data available
<b>Vapour pressure</b>	No data available
<b>Specific Gravity / Relative density</b>	2.50
<b>Vapour density</b>	No data available
<b>Particle characteristics</b>	No data available

## Section 10: STABILITY AND REACTIVITY

### Stability

<b>Reactivity</b>	No data available
<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Hazardous reactions</b>	
None under normal processing	
<b>Conditions to avoid</b>	
Extremes of temperature and direct sunlight	
<b>Incompatible materials</b>	
Strong oxidizing agents	
<b>Hazardous decomposition products</b>	
Nitrogen oxides (NOx), Metal oxides	

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity** No data available

<b>Skin irritation/corrosion</b>	No data available
<b>Serious eye damage/ irritation</b>	No data available
<b>Respiratory or skin sensitization</b>	No data available
<b>Reproductive cell mutagenicity</b>	No data available
<b>Carcinogenicity</b>	No data available

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Hexaammonium Heptamolybdate Tetrahydrate 12054-85-2	-	-	A3	-

<b>Reproductive toxicity</b>	No data available
<b>STOT-single exposure</b>	No data available
<b>STOT-repeated exposure</b>	No data available

Aspiration hazard No data available

### Section 12: ECOLOGICAL INFORMATION

Ecotoxicity No information available

Other data No data available

Persistence and degradability No information available

Bioaccumulative potential No information available

Mobility in soil No information available

Hazard to the ozone layer No information available

### Section 13: DISPOSAL CONSIDERATIONS

#### Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

#### Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

### Section 14: TRANSPORT INFORMATION

ADR/RID Not regulated

UN number -

Proper shipping name:

UN classification

Subsidiary hazard class

Packing group

Marine pollutant Not applicable

IMDG Not regulated

UN number -

Proper shipping name:

UN classification

Subsidiary hazard class

Packing group

Marine pollutant (Sea) Not applicable

Transport in bulk according to No information available

Annex II of MARPOL 73/78 and the IBC Code

IATA Not regulated

UN number -

Proper shipping name:

UN classification

Subsidiary hazard class

Packing group

Environmentally Hazardous Substance Not applicable

Substance

### Section 15: REGULATORY INFORMATION

#### International Inventories

EINECS/ELINCS -

TSCA -

#### Japanese regulations

Fire Service Act Not applicable

Poisonous and Deleterious Not applicable

<b>Substances Control Law</b>	
<b>Industrial Safety and Health Act</b>	Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57, Para.1, Enforcement Order Art.18) Notifiable Substances (Law Art.57-2, Enforcement Order Art.18-2 Attached Table No.9)No.603
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Not applicable
<b>Civil Aeronautics Law</b>	Not applicable
<b>Pollutant Release and Transfer Register Law</b>	Class 1
<b>Class 1 - No.</b>	453
<b>Water Pollution Control Act</b>	Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)
<b>Export Trade Control Order</b>	Not applicable
<b>Air Pollution Control Law</b>	Hazardous Air Pollutants

Chemical Name	Poisonous and Deleterious Substances Control Law	Industrial Safety and Health Act Substances (Law Art.57-2)	Pollutant Release and Transfer Register Law
Hexaammonium Heptamolybdate Tetrahydrate 12054-85-2 ( 99.0 )	-	Applicable	Applicable

## Section 16: OTHER INFORMATION

### Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

### Disclaimer

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z7252(2019). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**