GHS Safety Data Sheet

SDS No.: MOO02PAEG Date Issued : 2019/04/03

Section 1. Identification of the substance or mixture and of the supplier

Product Information

Product name: MoO₂ Molybdenum(IV)oxide

| Product number: | Purity | Form | Size or Shape |
|-----------------|-----------|--------|-------------------------------|
| MOO01PB | 99.9%(3N) | powder | _ |
| MOO01GB | 3N | grains | _ |
| _ | 3N | target | Various shapes, Various sizes |

Company Information:

Manufacturer: Kojundo Chemical Laboratory Co., Ltd.

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Recommended uses and restrictions on use: For research purposes

Section 2. Hazards identification

GHS Classification

| Health Hazards | Environmental Hazards | Physical Hazards |
|-------------------|-----------------------|--|
| No data available | No data available | Flammable solids: Not classified Pyrophoric solids: Not classified Self-heating substances and mixtures: Not classified Substances and mixtures which, in contact with water, emit flammable gases: Not classified |

GHS Label:

Pictograms or symbols: Not applicable

Warning word: Not applicable

| Hazard information | Description of precaution |
|--------------------|--|
| Not applicable | Wear protective gloves/protective clothing/eye protection/respiratory protection/face protection during handling. Avoid release to the environment and collect spillage. Protect from sunlight. Store in a cool, dry and well-ventilated place. Keep container tightly closed. |

Section 3. Composition / information on ingredients

Chemical or common name: Molybdenum(IV) oxide Synonyms: Molybdenum dioxide

Chemical formula: MoO₂

Single Substance or Compound: Single substance

 Composition:
 100%

 CAS #:
 18868-43-4

 RTECS#:
 QA4688000

 TSCA inventory:
 listed

 EINECS:
 2426379



Section 4. First aid measures

Eye contact: Promptly wash eyes with plenty of water while lifting the eye lids.

Continue to rinse for at least 15 minutes and get medical attention.

Skin contact: Promptly flush contaminated skin with soap or mild detergent and water.

Contact physician if irritation continues.

Inhalation: Remove the exposed person immediately and provide fresh air.

Get medical attention.

Ingestion: Rinse mouth and throat with water. Get medical attention immediately.

Section 5. Fire fighting measures

Extinguishing media:

Use media appropriate for surrounding fire.

Fire fighting: The product is not combustible.

Self-contained breathing apparatus and full protective clothing should be used, if

the material is involved in fire.

Section 6. Accidental release measures

Personal Precautions:

Workers should use protective wears to prevent contact with the spilt adhesive and inhalation of its vapor/dusts.

Environmental hazard precautions:

Shut off leak if without risk.

Prevent flow out to river, etc. so as not to badly affect.

Method for containment and cleaning up:

Indoor leakage: Ventilate as much as possible until the cleaning is completed.

Outdoor leakage: Work from the windward and evacuate the leeward crowd.

Gather up, pack in closed container as much as possible.

Carefully collect remnant and move to a safe place.

Section 7. Handling and storage

Precautions to be taken in handling:

Safe handling: Use protective wears and local ventilation equipment, if inhalation or skin

contact is foreseen.

Avoid prolonged or repeated exposure.

Precautions to be taken in storage:

General precautions: Store the material in a sealed container under dry inert atmosphere.

Store in a cool, dry, well ventilated and dark place away from incompatible

materials.

Section 8. Exposure controls / personal protection

Exposure guideline:

| | ACGIH(2013) | OSHA(2006) |
|--------------------------------|-------------|------------|
| Chemical Name | TLV-TWA | PEL-TWA |
| | mg/m³ | mg/m³ |
| Molybdenum insoluble compounds | 3(R), 10(I) | 15(T) |
| | | |

(R):respirable particles, (I):inhalable particles, (T):Total dust

Facility measures: Local ventilation of closed work room or total proper ventilation to prevent

inhalation.

Protective ware: Wear appropriate NIOSH/MSHA-approved respirator, safety goggles,

protective gloves.



Section 9. Physical and chemical properties

Gray solid Appearance: Chemical formula: MoO_2 Formula weight: 127.9

Melting point: 1100 °C (decomposes)

Density: 6.47 g/cm³ Solubility in water: Insoluble.

Flammability: Non-combustible substance.

Oxidation: None

Section 10. Stability and reactivity

Stable in closed container. Stability:

Reactvity

Incompatibility: No data available.

Section 11. Toxicological information

GHS: No data available Acute toxicity: GHS: No data available Skin corrosive / irritation: GHS: No data available Serious eye damage / irritation: Respiratory sensitization: GHS: No data available GHS: No data available Skin sensitization: Germ cell mutagenicity: GHS: No data available GHS: No data available Carcinogenicity: Reproductive toxicity: GHS: No data available

Specific target organ toxicity

-single exposure: GHS: No data available -repeated exposure: GHS: No data available GHS: No data available Aspiration hazard:

Section 12. **Ecological** information

Ecotoxicity:

Fish toxicity:

Degradability:

Mobility in soil:

Hazardous to the aquatic environment

-acute toxicity: GHS: No data available GHS: No data available -chronic toxicity: Hazardous to the ozone layer: GHS: No data available

No Freon or Halon No data available No data available Bioaccumulative potential: No data available

Section 13. Disposal considerations

Disposal method: User of the product should contract with the local government or licensed

'Industrial Waste Haulers' for disposal of waste.

No data available

Transport information Section 14.

UN classification: Non-hazards

UN number: None HS code: 2825.70Marine pollution: None



Section 15. Regulatory information

TSCA inventory: listed.

Please refer to any other local / national measures that may be relevant.

Section 16. Other information

The information described above is believed to be correct. However, Kojundo Chemical Lab. makes no representation, warranty nor guarantee of any kind with respect to the information on this data sheet or any use of the product based upon this information.

