| α Molybdenum Spray (ALP-MO) | SDS No. | 5832 |
|---|---|---|
| TRUSCO NAKAYAMA CORPORATION | Revision Date | May. 28, 2025 |

# SAFETY DATA SHEET(SDS)

## 1 PRODUCT AND COMPANY IDENTIFICATION

| | | |
|---|---|---|
| Product Name | : | α Molybdenum Spray (ALP-MO) |
| Company Name | : | TRUSCO NAKAYAMA CORPORATION |
| Address | : | 28-1 SHINBASHI 4-chome,MINATO-KU,TOKYO,JAPAN |
| Phone Number | : | 0120-509-849 |
| Fax Number | : | 0120-509-839 |
| Mail Address | : | techno.center@trusco.co.jp |

## 2 HAZARDS IDENTIFICATION

Hazards Category

| | | |
|---|---|---|
| Aerosols | : | Category 1 |
| Flammable Liquids | : | Category 2 |
| Specific Target Organ Systemic Toxicity(Single Exposure) | : | Category 2 |
| Specific Target Organ Systemic Toxicity(Single Exposure) | : | Category 3 |
| Specific target organ systemic toxicity(Repeated exposure) | : | Category 1 |
| Hazardous to The Aquatic Environment(Acute) | : | Category 2 |

The one without the description cannot be classified.

Allocation of Label Elements

Pictogram

Flame
Exclamation mark
Health Hazard



Signal Word

Danger

Hazard Statement

Extremely flammable aerosol
Pressurized container : may burst if heated
Highly flammable liquid and vapour
May cause damage to organs
May cause respiratory irritation; or May cause drowsiness or dizziness
Causes damage to organs through prolonged or repeated exposure
Toxic to aquatic life

Precautionary Statement

Prevention

Before use, read the safe data sheet (SDS).
Keep out of reach of children.
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
Do not spray on an open flame or other ignition source.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not burn, even after use.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash points of contact thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear protective gloves/protective clothing/eye protection/face protection/respiratory protection.

Response

In case of fire : Use dry chemical, carbon dioxide(CO2), and foam to extinguish.
IF SWALLOWED : Do NOT induce vomiting. Immediately call a POISON CENTER/doctor.
IF ON SKIN : Wash with plenty of soap and water.
If skin irritation or rash occurs : Get medical advice/attention.
IF INHALED : Remove person to fresh air and keep comfortable for breathing.
Get medical advice/attention if you feel unwell.
IF IN EYES : Rinse cautiously with water for several minutes. Get medical advice/attention.
If exposed or concerned : Get medical advice/attention.
Take off contaminated clothing.
Absorb spillage to prevent material damage.

Storage

Store locked up.
Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Protect from sunlight. Do not expose to temperatures exceeding 40℃.

Disposal

Dispose of contents /container in accordance with local/regional/national/international regulations.

## 3 COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients and Contents

| Component name | CAS number | wt% |
|---|---|---|
| Mineral oil | Trade secret | 30～40 |
| Molybdenum disulfide | 1317-33-5 | 5～10 |
| Cyclohexane | 110-82-7 | 1～5 |
| Propane | 74-98-6 | 5～10 |
| Butane | 106-97-8 | 40～50 |

## 4 FIRST-AID MEASURES

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing.
Call a physician if you feel unwell.

Skin

Wash with plenty of soap and water.
Call a physician if you feel unwell.

Eye

Immediately flush eyes with plenty of water for at least 15 minutes.
Call a physician.

Ingestion

Rinse mouth. Do not induce vomiting.
Call a physician.

## 5 FIRE-FIGHTING MEASURES

Extinguishing Media

Dry chemical, carbon dioxide(CO2), and foam

Specific Fire Fighting

Must not use water to extinguish fires.
Quickly removed from the surrounding flammable.
The use of extinguishing agents specified.
Fire fighting is done from the windward.
On small fires use carbon dioxide (CO2) or dry chemical.
On large fires use dry chemical or foam.
Sealed containers that are exposed to high temperatures over the water to cool.

Protection for Fire-fighter

Wear full body protective clothing with breathing apparatus.

## 6 ACCIDENTAL RELEASE MEASURES

Personal Precautions

Wear protective equipments in case of operation.

Environmental Precautions

Avoid release to the environment.

Methods for Cleaning Up

Remove potential ignition source in vicinity as soon as possible.
Prepare extinguishing agent.
Prevent leakage by enclosing with nonflammables and collect into empty container by scoop or the like.
Absorbed to non-flammable dry sand, if a large amount of spill to prevent enclosed in embankment.
If do not stop the leakage from the container, releasing carried away in a place not at risk of being open.
Spilled material is collected in a container that can be sealed, then remove to safe place.
Deposits, waste treatment is based on the local regulations.
Working from the windward, to evacuate people downwind.

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## 7 HANDLING AND STORAGE

Handling

Use in a well ventilated area.
Keep away from heat, spark and flames.
Use spark-proof tools and explosion-proof equipment.
After handling, wash well hands and face and rinse your mouth.
Facilities storing or utilizing this material should be equipped with an eye wash facility and a safety shower.
Leakage, overflow, to prevent scattering, we do not generate steam in vain.
In the handling area and deny unnecessary entry.
Resting place shall not bring contaminated protective equipment such as gloves.
Wear protective equipments when risk of exposure occurs.
To work in an enclosed area that you work with appropriate protective equipment with a local exhaust ventilation sufficient.

Precautions

Do not breathe vapor or mist.
Handling of the outdoors, as much as possible to work from the windward.
Note is flammable at higher temperatures.
Do not handle in a fire place.
Do not handle in the place more than 40 ℃.
Do not use continuously for more than 30 seconds.
Do not store near heat or open flame areas exposed to direct sunlight.
Not want to use toward food and the human body.

Handling Precautions for Safety

Avoid physical damage to containers.

Storage

Fire prohibited strictly.
Do not store in direct sunlight or where more than 40 ℃.
Keep away from sources of ignition.
Store in a cool, dry, well-ventilated area away from incompatible substances.
Note that because there is a risk of corrosion and rupture the container is stored in a moisture or humid place.
Store in a tightly closed container.

Safe containers and packaging materials

None in particular.

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## 8 EXPOSURE/PERSONAL PROTECTION

Engineering Controls

Handling equipment is used explosion-proof.
Attach an exhaust device to prevent vapor from staying.
That the equipment and shall become hot, and the source of ignition in the vicinity of the location, such as handling not been placed.
Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limit Values

| Chemical name | ACGIH |
|---|---|
| Mineral oil | TWA 5mg/m3(mist) |
| Molybdenum disulfide | TWA 3mg/m3 |
| Cyclohexane | TWA 100ppm |
| Propane | TWA 1,000ppm |
| Butane | TWA -, STEL (1000ppm) |

Personal Protective Equipment

Respiratory Protection

Wear an organic gas mask or positive pressure air respirator if necessary.

Skin Protection

Solvent-resistant gloves

Eye Protection

Wear chemical worker's goggles.

Skin and body protection

Such as long-sleeved work clothes

Hygiene measures

Do not eat, drink or smoke during work.

Replacement of the adsorbent, such as the mask is performed each time or use plans.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

| | | |
|---|---|---|
| Physical State | : | Liquid (Base liquid) |
| Color | : | Black |
| Odor | : | Solvent odor |
| pH | : | Not available |
| Boiling Point(℃) | : | Not available |
| Melting Point(℃) | : | Not available |
| Flammability | : | Not available |
| Flash point(℃) | : | 4 |
| Auto-ignition Temperature(℃) | : | Not available |
| Flammability or Explosive Limits | | |
| Lower | : | Not available |
| Upper | : | Not available |
| Vapour Pressure (KPa) | : | Not available |
| Vapour Density | : | Not available |
| Relative density(g/cm3) | : | 1.00 |
| Solubility | : | Insoluble in water |
| Partition Coefficient: n-octanol/water | : | Not available |
| Decomposition Temperature(℃) | : | Not available |
| Dynamic viscosity rate | : | Not available |
| Relative gas density | : | Not available |
| Particle properties | : | Not available |

## 10 STABILITY AND REACTIVITY

Stability

Stable under normal temperatures and pressures.

Reactivity

No self-reactive

Conditions to Avoid

Heat, flames, ignition sources and incompatibles.

Hazardous Decomposition Products

Carbon monoxide, carbon dioxide and other oxidized substances.

## 11 TOXICOLOGICAL INFORMATION

| Chemical name | Acute toxicity (oral) | Acute toxicity (dermal) | Acute toxicity (inhalation: gas) | Acute toxicity (inhalation: vapour) | Acute toxicity (inhalation: dust, mist) | Skin corrosion / irritation | Serious eye damage / eye irritation |
|---|---|---|---|---|---|---|---|

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| Mineral oil | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Molybdenum disulfide | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Classification not possible | Classification not possible | Classification not possible |
| Cyclohexane | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Classification not possible | Category 2 | Category 2A |
| Propane | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Classification not possible |
| Butane | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Not applicable to category | Classification not possible | Classification not possible |

| Chemical name | Respiratory/skin sensitizer | Germ cell mutagenicity | Carcinogenicity | Toxic to reproduction | Specific target organs/systemic toxicity following single exposure | Specific target organs/systemic toxicity following repeated exposure | Aspiration hazard |
|---|---|---|---|---|---|---|---|
| Mineral oil | Respiratory sensitizer: Classification not possible; Skin sensitizer: Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Molybdenum disulfide | Respiratory sensitizer: Classification not possible; Skin sensitizer: Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible | Classification not possible |
| Cyclohexane | Respiratory sensitizer: Classification not possible; Skin sensitizer: Classification not possible | Classification not possible | Classification not possible | Not applicable to category | Category 2 ( cardiovascular syste) Category 3 (respiratory tract irritation, narcotic effects) | Classification not possible | Classification not possible |
| Propane | Respiratory sensitizer: Classification not possible; Skin sensitizer: Classification not possible | Classification not possible | Classification not possible | Classification not possible | Category 3 (narcotic effects) | Classification not possible | Not applicable to category |
| Butane | Respiratory sensitizer: Classification not possible; Skin sensitizer: Classification not possible | Classification not possible | Classification not possible | Classification not possible | Category 3 (narcotic effects) | Category 1 (central nervous system) | Not applicable to category |

## 12 ECOLOGICAL INFORMATION

| Chemical name | Hazardous to the aquatic environment (Acute) | Hazardous to the aquatic environment (Chronic) | Hazard to the ozone layer | Residuality and decomposition | Ecological accumulation | Mobility in soil |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| Mineral oil | Classification not possible | Classification not possible | Classification not possible | No data | No data | No data |
| Molybdenum disulfide | Classification not possible | Classification not possible | Classification not possible | No data | No data | No data |
| Cyclohexane | Category 1 | Category 3 | Classification not possible | No data | No data | No data |
| Propane | Classification not possible | Classification not possible | Classification not possible | No data | No data | No data |
| Butane | Classification not possible | Classification not possible | Classification not possible | No data | No data | No data |

## 13 DISPOSAL CONSIDERATIONS

Dispose of contents /container in accordance with local/regional/national/international regulations.

## 14 TRANSPORT INFORMATION

UN Class

Aerosols, flammable, Class 2.1

UN No.

UN1950

Packing Group

Not regulated.

## 15 REGULATORY INFORMATION

Follow all regulations in your country.

## 16 OTHER INFORMATION

References

JIS Z 7253 (2019)

GHS data-base (NITE)

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