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SAFETY DATA SHEET (SDS)

Section1. Identification

Product Name : **M-5 POWDER**

Company Name : NICHIMOLY Div. DAIZO CORPORATION

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Name of section : Quality Assurance Dept.

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SDS No. : 10064G -(1)E

Section2. Hazard identification

GHS Classification

<Physical hazards> Not classified

<Health hazards> SPECIFIC TARGET ORGAN SYSTEMIC TOXICITY Category 3
SINGLE EXPOSURE

<Environmental hazards> HAZARDOUS TO THE AQUATIC ENVIRONMENT Not classified

<Hazards symbol>
<Signal word>

**Warning**

<Hazard statement>

- May cause damage to Respiratory organs.
- Causes damage to organs (Respiratory organs, Lungs, Skin) through prolonged or repeated exposure. (state route of exposure if it is conclusively proven that no her routes of exposure cause the hazard)

** When there is not mention by the GHS classification, perform enough consideration about the safety measures / emergency measures / storage / disposal in reference to following information.*

Cautions

<Safety measurements>

- Do not handle until all safety precautions have been read and understood.
- Keep away from ignition sources such as heat, sparks, or open flame.
- Use only non-sparking tools.
- Do not breath mist and vapor.
- Use only in a outdoor or well-ventilated area.
- Avoid release to the environment.
- Do not eat, drink or smoking when using this product.
- Wear appropriate protective gloves, glasses, clothes, face shield, or mask.
- Wash hands thoroughly after handling.

<First-aid measures>

- If inhaled : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical treatment if you feel unwell.
- If swallowed : Rinse mouth, do not induce vomiting. Immediately get medical treatment.
- If eye contact : Rinse cautiously with water for at least 15 minutes. Get medical treatment.
- If skin contact : Wash hands thoroughly after handling. Remove contaminated clothing and the substance. Get medical treatment, if you feel unwell.

- <Storage>
- Store in cool, dry, well-ventilated location. Keep away from heat and all possible source of ignition temperature below 40°C and keep away from sunlight.
- <Disposal>
- Follow all regulation in your country.

Section3. Composition/information on ingredients

Substance/Mixture Single substance
Chemical Product Name Molybdenum Disulfide

Composition

	Chemical formulae	CAS. No.	Composition Mass%
Molybdenum Disulfide	MoS ₂	1317-33-5	Over 98.0 %

Section4. First-aid measures

- Eye contact : Wash eyes immediately with large amount of water or normal saline, occasionally lifting upper and lower lids, until no evidence of chemical remains (approximately 15-20minutes). Get medical attention.
- Skin contact : Remove contaminated clothing and shoes immediately. Wash affected area with Soap or mild detergent and large amounts of Water until no evidence of chemical remains (approximately 15-20minutes). Get medical attention.
- Inhalation : Remove from exposure area to fresh air immediately. If breathing has stopped, perform artificial respiration. Keep person warm and at rest. Get medical attention.
- Ingestion : If vomiting occurs, keep head lower than hips to prevent aspiration. Get medical attention if needed.

Section5. Fire-fighting measures

- Fire-Fighting : No acute hazard. Move container from fire area if possible. Avoid breathing vapors or dusts; keep upwind.
- Special hazards with regards to Fire-Fighting measures : Toxic gases (Hydrogen sulfide) will form upon combustion.
- Extinguishing media : Dry chemical powder, foam or carbon dioxide.

Section6. Accidental release measures

- Personal precautions, protective equipment and emergency procedures : 1. Provide advice related to accidental spills and release of the substance or mixture such as: the wearing of suitable protective equipment (including personal protective equipment, see Section 8 of the SDS) to prevent any contamination of skin, eyes and personal clothing;
2. Provide advice related to accidental spills and release of the substance or mixture such as: removal of ignition sources and provision of sufficient ventilation;
3. Provide advice related to accidental spills and release of the substance or mixture such as: emergency procedures such as the necessity to evacuate the danger area or to consult an expert.
- Environmental precautions : Provide advice on any environmental precautions related to accidental spills and release of the substance or mixture, such as keeping away from drains, surface and ground water.
- Methods and materials for containment and cleaning up: 1. Provide appropriate advice on how to contain and clean up a spill. Appropriate containment techniques may include: bonding, covering of drains; and capping procedures.
2. Appropriate clean up procedures may include: equipment required for containment/clean up (include the use of non-sparking tools and equipment where applicable).

Provide any other issues relating to spills and releases. For example, including advice on inappropriate containment or clean up techniques

Section7. Handling and storage**Handling**

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| Precautions for safe handling : | 1. Use only in the well-ventilated areas. |
| | 2. Avoid contact with personnel |
| | 3. Do not breathe dust. |
| | 4. Wear proper protective equipment for prevention of skin, or eye contact. |
| | 5. Follow all regulation in your country. |

Storage

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| Conditions for safe storage, including any incompatibilities : | 1. Store in cool, dry, well-ventilated location. |
| | 2. Keep away from heat and all possible source of ignition. |
| | 3. Keep away from reach of child. |
| | 4. Keep away from sunlight. |
| | 5. Keep at temperature below 40°C |
| | 6. Follow all regulation in your country. |

Section8. Exposure controls/personal protection

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| Engineering measures : | Provide local exhaust ventilation and/or general dilution ventilation to meet published |
| Control parameters : | Molybdenum, insoluble (compounds as Mo) 10 mg/m3 ACGIH TWA |
| Personal protective equipment (PPE) | |
| Eye/face protection : | Employee should wear splash-proof or dust resistant safety goggles to prevent eye contact with this substance. |
| Skin protection : | Protective clothing not required. Avoid repeated or prolonged contact with this substance.
GLOVES: Protective gloves not required but recommended. |
| Respiratory protection : | The specific respirator selected must be based on the specific operation, must be based on contamination levels found in the work place, must be based on the specific operation, must not exceed the working limits of the respirator and must be jointly approved by the National Institute for Occupational "Safety and Health and the Mine Safety and Health administration" (NIOSH-MSHA).
*Any dust, mist, and fume respirator.
*Any chemical cartridge respirator with a dust, mist, and fume filter.
*Any powered air-purifying with a dust, mist, and fume filter.
*Any type "c" supplied-air respirator with a full face piece operated in pressure-demand or other positive pressure mode or with a full face piece, helmet or hood erased continuous-flow mode.
*Any self-contained breathing apparatus with a full face piece operated in pressure-demand or other positive pressure mode. |

Consistent with good occupational hygiene practices, personal protective equipment (PPE) should be used in conjunction with other control measures, including engineering controls, ventilation and isolation. See also Section 5 – Fire- fighting measures of the SDS for specific fire/chemical PPE advice

Section9. Physical and chemical properties

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| Physical state, form : | Powdered solid |
| Color : | Ashes black |
| Odor : | Mild odor |
| pH: | Not applicable |
| Boiling point : | Not applicable |
| Melting point: | 1480°C (Molybdenum Disulfide) |
| Flash point : | Not applicable |
| Auto-ignition point: | Not applicable |
| Exposition characteristic exposition limit | No Data |
| Density: | 4.8g/cm3 (Molybdenum Disulfide) |
| Solubility in organic solvent: | Insoluble |
| Solubility in water: | Insoluble |
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Section10. Stability and reactivity

Reactivity :	Describe the reactivity hazards of the substance or mixture in this section. Provide specific test data for the substance or mixture as a whole, where available. However, the information may also be based on general data for the class or family of chemical if such data adequately represent the anticipated hazard of the substance or mixture.
Chemical stability :	Indicate if the substance or mixture is stable or unstable under normal ambient and anticipated storage and handling conditions of temperature and pressure. Describe any stabilizers which are, or may need to be, used to maintain the product. Indicate the safety significance of any change in the physical appearance of the product.
Possibility of hazardous reactions :	If relevant, state if the substance or mixture will react or polymerize, releasing excess pressure or heat, or creating other hazardous conditions. Describe under what conditions the hazardous reactions may occur.
Conditions to avoid :	List conditions such as heat, pressure, shock, static discharge, vibrations or other physical stresses that might result in a hazardous situation.
Incompatible materials :	List classes of chemicals or specific substances with which the substance or mixture could react to produce a hazardous situation (e.g. explosion, release of toxic or flammable materials, liberation of excessive heat).
Hazardous decomposition products :	List known and reasonably anticipated hazardous decomposition products produced as a result of use, storage and heating. Hazardous combustion products should be included in Section 5 – Fire-fighting measures of the SDS.

Section11. Toxicological information

Corrosively and irritant properties :	No relevant information found
Allergenic and sensitizing effects :	No relevant information found
Acute toxicity :	No relevant information found
Chronic toxicity :	INHALATION: 25 one-hour exposures to 490mg/m ³ caused no effects in all the animals tested except one which died after the third exposure. INGESTION: Rats fed up to 500mg daily for 44 days showed no toxic signs and all gained.
Carcinogenic effects :	No relevant information found
Mutagenic effects :	No relevant information found
Effects on the pre-productive system:	No relevant information found
Teratogenic effects :	No relevant information found
Other information :	Other relevant information on adverse health effects should be included even when not required by the GHS classification criteria.

Section12. Ecological information

Bio degradability :	This substance is not biodegradable.
Bio accumulation :	No relevant information found
Fish toxicity :	No relevant information found

Section13. Disposal considerations

1. Do not dump into sewers , on the ground or into any body of water.
2. Disposal shall be in accordance with the concerned rules and regulation.
3. Follow all regulation in your country.

Section14. Transport information

UN Class:	Not classified
UN No. :	Not classified
Specific precautionary transport measures and conditions.	
Follow all regulation in your country.	

Section15. Regulatory information

Follow all regulation in your country.

Section16. Other information

All materials may present unknown hazard and should be used in caution.

Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.