

Material Safety Data Sheet

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Product name	MAR
Product code	A101-01
Company name	Goryo Chemical, Inc.
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2. HAZARDS IDENTIFICATION

GHS classification	Not classified
Hazardous/Non-hazardous Components	
Nocuous	No data available
Effect on environment	No data available
Physically and chemical hazards	Non-inflammable powder

3. COMPOSITION/INFORMATION ON INGREDIENTS

Single or mixture	Single Product
Compound name	MAR
Component	Single component

4. FIRST AID MEASURES

Skin contact

- Wash off immediately with plenty of water. If symptoms persist, call a physician.
- If skin stimulates or rash appears, call a physician.

Eye contact

- Rinse thoroughly with plenty of water, also under the eyelids. If symptoms persist, consult a physician.
- Take off your contact lens when wash with water.

Inhalation

- Remove to fresh air immediately, give a rest and keep warm covering the body with blanket, and obtain medical attention.
- If feeling bad, call a physician.

Ingestion

- Rinse out mouth thoroughly with water.
- If feeling bad, call a physician.

Protection of first-aiders

- A rescuer should wear personal protective equipment, such as rubber gloves and airtight goggles.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media	Water spray, Alcohol resistance, Powder, Carbon dioxide
Specifically dangerous hazards	Thermal decomposition can lead to release of irritating and toxic gases and vapors.
Extinguishing method	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so.
Protection of fire-fighters	Use personal protective equipment as required

6. ACCIDENTAL RELEASE MEASURES

Personal precautions

- Go to the windward, and wearing protective clothing during procedures is imperative.

- Keep away the people under lee and seal off by roping spill site.
- Keep away near inflammables swiftly and prepare fire-fighting equipment.

Environmental precautions

- Prevent product from entering drains.

Methods and materials for containment and cleaning up

- Do not touch spilled material without suitable protection. After material is completely picked up, wash the spill site with soap and water and ventilate the area. Put all wastes in a plastic bag for disposal and seal it tightly. Remove, clean, or dispose of contaminated clothing.

7. HANDLING AND STORAGE

Handling

Technical measures

- Handling is performed in a well-ventilated place.
- Avoid contact with skin, eyes and clothing.
- Wear suitable protective equipment.
- Wash hands and face thoroughly after handling.
- Use a local exhaust if dust or aerosol will be generated.

Advice on safe handling

- Handle in accordance with good industrial hygiene and safety practice.
- Vessel shouldn't be treated violently, such as rolling, shocking or dragging.

Storage

Storage conditions

- Keep container tightly closed. Store in a dark place under -20 degrees Celsius.
- Avoid long storage.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls	Install a closed system or local exhaust. Install safety shower and eye bath.
Control parameters	Not set up
Personal protective equipment	
Respiratory protection	Dust respirator
Hand protection	Protective gloves
Eye protection	Safety glasses
Skin and body protection	Protective clothing. Protective boots, if the situation requires.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state (color/form)	Dark purple / hygroscopic solid
Odor	Odorless
pH	No data available
Melting point/freezing point	No data available
Boiling Point/Range	No data available
Flash Point	No data available
Explosive limits	No data available
Vapor pressure	No data available
Vapor density	No data available
Density	No data available
Solubility	Soluble to MeOH, DMSO
Firing point	No data available
Decomposition temperature	No data available

10. STABILITY AND REACTIVITY

Stability	Stable under proper conditions.
Reactivity	None under normal processing.
Incompatible materials	Strong oxidizing agents, reducing agents
Hazardous Decomposition Products	None under normal use.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity	No data available
Skin corrosion/irritation	No data available
Serious eye damage/irritation	No data available
Respiratory sensitization	No data available
Skin sensitization	No data available
Reproductive cell mutagenicity	No data available
Carcinogenicity	No data available
Reproductive toxicity	No data available
STOT-single exposure	No data available
STOT-repeated exposure	No data available
Aspiration hazard	No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity effects	No information available
Mobility	No information available
Biodegradation	No information available
Bioaccumulation	No information available

13. DISPOSAL CONSIDERATIONS

Chemical materials

- Dispose of in accordance with local regulations.

Polluted vessels and package

- Dispose of in accordance with local regulations.

14. TRANSPORT INFORMATION

Hazards Class Does not correspond to the classification standard of the United Nations

IATA

Proper shipping name	Not classified as dangerous in the meaning of transport regulations.
Hazard Class	No information available
Subsidiary Class	No information available
Packing group	No information available
UN-No	No information available

15. JAPANESE REGULATORY INFORMATION

Not applicable

16. OTHER INFORMATION

- International Chemical Safety Card (ICSC) database in Japanese (National Institute of Health Sciences)
 - This MSDS was prepared sincerely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data contained and the assessment of hazards and toxicity.
 - Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used.
 - Some new information or amendments may be added afterwards.
 - If the products are to be used far behind the expected time of use or if you have any questions, please feel free to contact us.
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