

February 8, 2018

## Safety Data Sheet

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

Product name CaSiR-1 potassium salt  
Product code GC405  
Company name GORYO Chemical, Inc.  
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### 2. HAZARDS IDENTIFICATION

GHS classification  
Classification of the substance or mixture  
PHYSICAL HAZARDS Classification not possible  
HEALTH HAZARDS Classification not possible  
ENVIRONMENTAL HAZARDS Classification not possible  
Label elements  
Pictograms or hazard symbols None  
Signal word No signal word  
Hazard statements None  
Precautionary statements None

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance or Mixture Substance  
Compound name CaSiR-1 potassium salt  
Percent  $\geq 70\%$  (LC)

### 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

Protection of fire-fighters

in the surroundings: Remove movable containers if safe to do so.

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) Blue/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(ies)

[Water] Soluble

[Other solvents]

Soluble Methanol

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
Hazard to the ozone layer	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

ADR/RID	Not regulated
UN number	-
Proper shipping name	-
UN classification	-
Subsidiary hazard class	-
Packing group	-
Marine pollutant	No information available
IMDG	Not regulated
UN number	-
Proper shipping name	-
UN classification	-
Subsidiary hazard class	-
Packing group	-
Marine pollutant (Sea)	No information available
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	No information available
IATA	Not regulated
UN number	-

Proper shipping name	
UN classification	
Subsidiary hazard class	
Packing group	
Environmentally Hazardous Substance	No information available

## 15. 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.