



## Safety Data Sheet

---

### 1. Identification of the substance/mixture and of the company/undertaking

#### Product identifier:

Product name: Potassium hexacyanoferrate(III)

SDS No. : 6352E-2

#### Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

Address: 3-1, Honmachibashi, Chuo-ku, Osaka, JAPAN

Division: Safety Management Dept. of Chemicals

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

e-mail address: kagakuhinanzenkanri@kishida.co.jp

---

### 2. Hazards identification

#### GHS classification and label elements of the product

#### Classification of the substance or mixture

##### HEALTH HAZARDS

Serious eye damage/eye irritation: Category 2B

(Note) GHS classification without description: Not classified/Classification not possible

#### Label elements

No GHS label element

Signal word: Warning

##### HAZARD STATEMENT

Causes eye irritation

##### PRECAUTIONARY STATEMENT

###### Prevention

Wash contaminated parts thoroughly after handling.

###### Response

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

---

### 3. Composition/information on ingredients

#### Mixture/Substance selection:

##### Substance

Ingredient name: Potassium hexacyanoferrate(III)

Content (%): 95(min)

Chemical formula:  $K_3[Fe(CN)_6]$

Chemicals No, Japan: 1-134

CAS No.: 13746-66-2

MW: 329.25

ECNO: 237-323-3

Note : The figures shown above are not the specifications of the product.



---

#### 4. First-aid measures

##### Descriptions of first-aid measures

###### IF INHALED

Remove person to fresh air and keep comfortable for breathing.

Call a POISON CENTER or doctor/physician if you feel unwell.

###### IF ON SKIN (or hair)

Take off immediately all contaminated clothing. Rinse skin with water/shower.

If skin irritation or rash occurs: Get medical advice/attention.

###### IF IN EYES

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

If eye irritation persists: Get medical advice/attention.

###### IF SWALLOWED

Rinse mouth.

Call a POISON CENTER or doctor/physician if you feel unwell.

---

#### 5. Fire-fighting measures

##### Extinguishing media

###### Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media data is not available.

##### Advice for firefighters

###### Specific fire-fighting measures

Evacuate non-essential personnel to safe area.

###### Special protective equipment and precautions for fire-fighters

Wear fire/flame resistant/retardant clothing.

Wear protective gloves/protective clothing/eye protection/face protection.

Firefighters should wear self-contained breathing apparatus with full face piece operated positive pressure mode.

---

#### 6. Accidental release measures

##### Personnel precautions, protective equipment and emergency procedures

Ventilate area until material pick up is complete.

Wear proper protective equipment.

##### Environmental precautions

Prevent spills from entering sewers, watercourses or low areas.

Avoid raising dust.

##### Methods and materials for containment and cleaning up

Sweep up, place in a bag and hold for waste disposal.

##### Preventive measures for secondary accident

Collect spillage.

---

#### 7. Handling and storage

##### Precautions for safe handling

###### Preventive measures

(Protective measures against fire and explosion)

Keep away from heat/sparks/open flames/hot surfaces. – No smoking.

(Exhaust/ventilator)

Exhaust/ventilator should be available.

(Safety treatments)



Avoid contact with skin.

Avoid contact with eyes.

#### Safety Measures

Wear protective gloves, protective clothing or face protection.

When using do not eat, drink or smoke.

#### Any incompatibilities

See "10.Stability and Reactivity"

#### Advice on general occupational hygiene

Wash contaminated parts thoroughly after handling.

#### Storage

##### Conditions for safe storage

Keep container tightly closed.

Store in a cool, dry place. Do not store in direct sunlight.

##### Container and packaging materials for safe handling

Glass

Polyethylene

---

### 8. Exposure controls/personal protection

#### Control parameters

#### Exposure controls

##### Appropriate engineering controls

Do not use in areas without adequate ventilation.

Eye wash station should be available.

Washing facilities should be available.

##### Individual protection measures

##### Respiratory protection

Wear respiratory protection.

##### Hand protection

Wear protective gloves.

##### Eye protection

Wear eye/face protection.

---

### 9. Physical and Chemical Properties

#### Information on basic physical and chemical properties

Physical state: Crystals to crystalline powder

Color: Red to dark red

Odor: Odorless

Melting point/Freezing point data is not available.

Boiling point or initial boiling point data is not available.

Boiling range data is not available.

Flammability (gases, liquids and solids) data is not available.

Lower and upper explosion limit/flammability limit data is not available.

Flash point data is not available.

Auto-ignition temperature data is not available.

Decomposition temperature data is not available.

pH data is not available.

Kinematic viscosity data is not available.

#### Solubility:

Solubility in water: 46 g/100 ml

n-Octanol/water partition coefficient data is not available.

Vapor pressure data is not available.

Density and/or relative density: 1.89 g/cm<sup>3</sup>



Relative vapor density (Air=1) data is not available.

No Particle characteristics data is not available.

---

## 10. Stability and Reactivity

### Reactivity

Not available.

### Chemical stability

Stable under normal storage/handling conditions.

### Possibility of hazardous reactions

Decomposes on heating. This produces toxic gases including hydrogen cyanide. Reacts with acids. This produces cyanides. This generates toxic hazard. (ICSC 1132)

### Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

### Incompatible materials

Acids

### Hazardous decomposition products

Hydrogen cyanide, Cyanides

---

## 11. Toxicological Information

### Information on toxicological effects

#### Acute toxicity

##### Acute toxicity (Oral)

[Company proprietary data]

(Potassium hexacyanoferrate(III))

mouse LD50=2970 mg/kg

#### Irritant properties

Skin corrosion/irritation data is not available.

Serious eye damage/irritation

[Company proprietary data]

(Potassium hexacyanoferrate(III))

Category 2B

Allergenic and sensitizing effects data is not available.

Mutagenic effects data is not available.

Carcinogenic effects data is not available.

Reproductive toxicity data is not available.

#### STOT

STOT-single exposure data is not available.

STOT-repeated exposure data is not available.

Aspiration hazard data is not available.

#### Additional data

May cause lung disorders by massive inhalation of powdered substance.

-e.g. fibrosis of lung tissue, cough, sputum, breath shortness, dyspnea, decline of lung function, interstitial lung disease, pneumothorax

---

## 12. Ecological Information

### Ecotoxicity

Ecotoxicity data is not available.

### Water solubility

(Potassium hexacyanoferrate(III))

46 g/100 ml (ICSC, 2002)

**Persistence and degradability**

Persistence and degradability data is not available.

**Bioaccumulative potential**

Bioaccumulative potential data is not available.

**Mobility in soil**

Mobility in soil data is not available.

**Other adverse effects**

Ozone depleting chemical data is not available.

---

**13. Disposal considerations**

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging

**Waste treatment methods**

Dispose of contents/container in accordance with local/national regulation.

---

**14. Transport Information**

Not applicable to UN No., UN CLASS

Not applicable to IMDG Code

Not applicable to IATA Dangerous Goods Regulations

**Environmental hazards**

MARPOL Annex III – Prevention of pollution by harmful substances

Marine pollutants (yes/no) : no

---

**15. Regulatory Information**

Safety, health and environmental regulations/legislation specific for the substance or mixture

**US Federal Regulations**

Chemicals listed in TSCA Inventory

Potassium hexacyanoferrate(III)

**Other regulatory information**

Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

---

**16. Other information****GHS classification and labelling**

Eye Irrit. 2B: H320 Causes eye irritation

**Reference Book**

Globally Harmonized System of classification and labelling of chemicals, (7th revised edition, 2017), UN

Recommendations on the TRANSPORT OF DANGEROUS GOODS 20th edit., 2017 UN  
IMDG Code, 2018 Edition (Incorporating Amendment 39-18)

IATA Dangerous Goods Regulations (61th Edition) 2020

Classification, labelling and packaging of substances and mixtures (Table 3 ECNO6182012)

2016 EMERGENCY RESPONSE GUIDEBOOK (US DOT)

2020 TLVs and BEIs. (ACGIH)

<http://monographs.iarc.fr/ENG/Classification/index.php>

Supplier's data/information

**General Disclaimer**

This data sheet was created based on the information we currently have and may be revised according to new information. In addition, the precautions apply only to normal handling, and in the case of special handling, please make adequate countermeasure to maintain your



safety.

The data given here is based on current knowledge and experience. The purpose of this Safety Data Sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.

The GHS classification data given here is based on current Japan official data (NITE published in 2019).