

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Issue Date** 13-Nov-2025  
 Revision Number 1.01

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

|                     |                                         |
|---------------------|-----------------------------------------|
| <b>Product Name</b> | Potassium Cyanide                       |
| <b>Product Code</b> | 168-29791,166-29792,164-29793,160-29795 |

**Supplier** FUJIFILM Wako Pure Chemical Corporation  
 1-2 Doshomachi 3-Chome, Chuo-ku, Osaka 540-8605, Japan  
 Phone: +81-6-6203-3741  
 Fax: +81-6-6203-2029

**Emergency telephone number** +81-6-6203-3741 / +81-3-3270-8571

**Recommended uses** For research use only

**Restrictions on use** Seek expert judgment when using for purposes other than those recommended.

## Section 2: HAZARDS IDENTIFICATION

## GHS classification

## Classification of the substance or mixture

|                                                           |                        |
|-----------------------------------------------------------|------------------------|
| <b>Acute toxicity - Oral</b>                              | Category 2             |
| <b>Acute toxicity - Dermal</b>                            | Category 1             |
| <b>Skin corrosion/irritation</b>                          | Category 2             |
| <b>Serious eye damage/eye irritation</b>                  | Category 2A            |
| <b>Reproductive Toxicity</b>                              | Category 2             |
| <b>Specific target organ toxicity (single exposure)</b>   | Category 1, Category 3 |
| <b>Category 1</b> central nervous system                  |                        |
| <b>Category 3</b> Respiratory irritation                  |                        |
| <b>Specific target organ toxicity (repeated exposure)</b> | Category 1             |
| <b>Category 1</b> central nervous system, thyroid gland   |                        |
| <b>Acute aquatic toxicity</b>                             | Category 1             |
| <b>Chronic aquatic toxicity</b>                           | Category 3             |

## Pictograms



## Signal word

Danger

## Hazard statements

H315 - Causes skin irritation  
 H319 - Causes serious eye irritation  
 H300 - Fatal if swallowed  
 H310 - Fatal in contact with skin  
 H361 - Suspected of damaging fertility or the unborn child  
 H335 - May cause respiratory irritation  
 H400 - Very toxic to aquatic life  
 H412 - Harmful to aquatic life with long lasting effects  
 H370 - Causes damage to the following organs: central nervous system  
 H372 - Causes damage to the following organs through prolonged or repeated exposure: central nervous system, thyroid gland

**Precautionary statements-(Prevention)**

- Obtain special instructions before use
- Do not handle until all safety precautions have been read and understood
- Use personal protective equipment as required
- Wash face, hands and any exposed skin thoroughly after handling
- Do not eat, drink or smoke when using this product
- Do not get in eyes, on skin, or on clothing
- Do not breathe dust/fume/gas/mist/vapors/spray
- Use only outdoors or in a well-ventilated area
- Avoid release to the environment

**Precautionary statements-(Response)**

- IF exposed: Call a POISON CENTER or doctor/physician
- 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 ON SKIN: Gently wash with plenty of soap and water
- Immediately call a POISON CENTER or doctor/physician
- Remove/Take off immediately all contaminated clothing
- Wash contaminated clothing before reuse
- If skin irritation occurs: Get medical advice/attention
- IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing
- Call a POISON CENTER or doctor/physician if you feel unwell
- IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
- Rinse mouth
- Collect spillage

**Precautionary statements-(Storage)**

- Store locked up
- Store in a well-ventilated place. Keep container tightly closed

**Precautionary statements-(Disposal)**

- Dispose of contents/container to an approved waste disposal plant

**Others**

**Other hazards** Not available

### Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Substance

**Formula** KCN

| Chemical Name     | Weight-% | Molecular weight | ENCS     | ISHL No. | CAS RN   |
|-------------------|----------|------------------|----------|----------|----------|
| Potassium Cyanide | 98.0     | 65.12            | (1)-1086 | *        | 151-50-8 |

**Note on ISHL No.:** \* in the table means announced chemical substances.

### Section 4: FIRST AID MEASURES

**Inhalation**

Remove to fresh air. If symptoms persist, call a physician.

**Skin contact**

Wash off immediately with soap and plenty of water. If symptoms persist, call a physician.

**Eye contact**

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

**Ingestion**

Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately. Do not induce vomiting without medical advice.

**Protection of first-aiders**

Use personal protective equipment as required.

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment

Unsuitable extinguishing media

No information available

Specific hazards arising from the chemical product

Thermal decomposition can lead to release of irritating and toxic gases and vapors.

Special extinguishing method

No information available

Special protective actions for fire-fighters

Use personal protective equipment as required. Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For indoor, provide adequate ventilation process until the end of working. Deny unnecessary entry other than the people involved by, for example, using a rope. While working, wear appropriate protective equipments to avoid adhering it on skin, or inhaling the gas. Work from windward, and retract the people downwind.

Environmental precautions

To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for contaminant and methods and materials for cleaning up

Sweep up and gather scattered particles, and collect it in an empty airtight container.

Recoverly, neutralization

No information available

Secondary disaster prevention measures

Clean contaminated objects and areas thoroughly observing environmental regulations.

Section 7: HANDLING AND STORAGE

Handling

Technical measures

Avoid contact with strong oxidizing agents. Use with local exhaust ventilation.

Precautions

Do not rough handling containers, such as upsetting, falling, giving a shock, and dragging. Prevent leakage, overflow, and scattering. Not to generate steam and dust in vain. Seal the container after use. After handling, wash hands and face, and then gargle. In places other than those specified, should not be smoking or eating and drinking. Should not be brought contaminated protective equipment and gloves to rest stops. Deny unnecessary entry of non-emergency personnel to the handling area.

Safety handling precautions

Use personal protective equipment as required. Avoid contact with skin, eyes or clothing.

Storage

Safe storage conditions

Storage conditions

Keep container protect from light, store in well-ventilated place at room temperature (preferably cool). Keep container tightly closed. Store locked up.

Safe packaging material

Polyethylene

Incompatible substances

Strong oxidizing agents, Strong acids, Water

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering controls**

In case of indoor workplace, seal the source or use a local exhaust system. Provide the safety shower facility, and hand- and eye-wash facility. And display their position clearly.

**Exposure limits**

| Chemical Name                 | JSOH (Japan)                                                          | ISHL (Japan)                  | ACGIH                                   |
|-------------------------------|-----------------------------------------------------------------------|-------------------------------|-----------------------------------------|
| Potassium Cyanide<br>151-50-8 | Ceiling: 5 mg/m <sup>3</sup><br>Skin<br>ISHL/ACL: 3 mg/m <sup>3</sup> | ISHL/ACL: 3 mg/m <sup>3</sup> | Skin<br>Ceiling: 5 mg/m <sup>3</sup> CN |

**Personal protective equipment**

**Respiratory protection** Chemical cartridge respirator for cyanide gas ( JIS T 8152 )  
**Hand protection** chemical protective gloves ( JIS T 8116 )  
**Eye protection** protective eyeglasses or chemical safety goggles (JIS T 8147)  
**Skin and body protection** Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.  
 If this product is classified as "Chemical Substances Hazardous to Skin, etc.", use appropriate protective equipment to them.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form**

**Color** white  
**Appearance** crystals - crystalline powder or mass

**Odor**

characteristic odor

**Melting point/freezing point**

634.5 °C

**Boiling point, initial boiling point and boiling range**

no data available

**Flammability**

no data available

**Evaporation rate:**

no data available

**Flammability (solid, gas):**

no data available

**Upper/lower flammability or explosive limits**

**Upper:**

no data available

**Lower:**

no data available

**Flash point**

no data available

**Auto-ignition temperature:**

no data available

**Decomposition temperature:**

no data available

**pH**

basic (aq.)

**Viscosity (coefficient of viscosity)**

no data available

**Dynamic viscosity**

no data available

**Solubilities**

water : freely soluble . Ethanol : sparingly soluble .

**n-Octanol/water partition coefficient:(log Pow)**

no data available

**Vapour pressure**

no data available

**Specific Gravity / Relative density**

1.52

**Vapour density**

no data available

**Particle characteristics**

no data available

## Section 10: STABILITY AND REACTIVITY

**Stability**

**Reactivity** no data available  
**Chemical stability** May be altered by light.

**Hazardous reactions**

reacts with acids and moisture to generate hydrogen cyanide gas.

**Conditions to avoid**

Extremes of temperature and direct sunlight, Moisture

**Incompatible materials**

Strong oxidizing agents, Strong acids, Water

**Hazardous decomposition products**

Hydrogen cyanide

**Section 11: TOXICOLOGICAL INFORMATION**

\*NITE: National Institute of Technology and Evaluation (JAPAN)

[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)**Acute toxicity**

| Chemical Name     | Oral LD50                           | Dermal LD50           | Inhalation LC50 |
|-------------------|-------------------------------------|-----------------------|-----------------|
| Potassium Cyanide | 10 mg/kg ( Rat )<br>6 mg/kg ( Rat ) | 22.3 mg/kg ( Rabbit ) | N/A             |

| Chemical Name     | Acute toxicity -oral- source information      | Acute toxicity -dermal- source information    | Acute toxicity -inhalation gas- source information |
|-------------------|-----------------------------------------------|-----------------------------------------------|----------------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. | Based on the NITE GHS classification results. | Based on the NITE GHS classification results.      |

| Chemical Name     | Acute toxicity -inhalation vapor- source information | Acute toxicity -inhalation dust- source information | Acute toxicity -inhalation mist- source information |
|-------------------|------------------------------------------------------|-----------------------------------------------------|-----------------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results.        | Based on the NITE GHS classification results.       | Based on the NITE GHS classification results.       |

**Skin irritation/corrosion**

| Chemical Name     | Skin corrosion/irritation source information  |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**Serious eye damage/ irritation**

| Chemical Name     | Serious eye damage/irritation source information |
|-------------------|--------------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results.    |

**Respiratory or skin sensitization**

| Chemical Name     | Respiratory or Skin sensitization source information |
|-------------------|------------------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results.        |

**Reproductive cell mutagenicity**

| Chemical Name     | germ cell mutagenicity source information     |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**Carcinogenicity**

| Chemical Name     | Carcinogenicity source information            |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**Reproductive toxicity**

| Chemical Name     | Reproductive toxicity source information      |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**STOT-single exposure**

| Chemical Name     | STOT -single exposure- source information     |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**STOT-repeated exposure**

| Chemical Name     | STOT -repeated exposure- source information   |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**Aspiration hazard**

| Chemical Name     | Aspiration Hazard source information          |
|-------------------|-----------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results. |

**Section 12: ECOLOGICAL INFORMATION**

\*NITE: National Institute of Technology and Evaluation (JAPAN)

[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)**Ecotoxicity**

| Chemical Name     | Algae/aquatic plants | Fish                                                        | Crustacea                                         |
|-------------------|----------------------|-------------------------------------------------------------|---------------------------------------------------|
| Potassium Cyanide | N/A                  | LC50 : <i>Oncorhynchus mykiss</i><br>0.04 - 0.046 mg/L 96 h | LC50 : <i>Mysidopsis bahia</i><br>0.113 mg/L 96 h |

## Other data

| Chemical Name     | Short-term (acute) hazardous to the aquatic environment source information | Long-term (chronic) hazardous to the aquatic environment source information |
|-------------------|----------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| Potassium Cyanide | Based on the NITE GHS classification results.                              | Based on the NITE GHS classification results.                               |

|                               |                          |
|-------------------------------|--------------------------|
| Persistence and degradability | No information available |
| Bioaccumulative potential     | No information available |
| Mobility in soil              | No information available |
| Hazard to the ozone layer     | No information available |

## Section 13: DISPOSAL CONSIDERATIONS

## Waste from residues

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Contaminated container and contaminated packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

## Section 14: TRANSPORT INFORMATION

## ADR/RID

|                         |                          |
|-------------------------|--------------------------|
| UN number               | UN1680                   |
| Proper shipping name:   | Potassium cyanide, solid |
| UN classification       | 6.1                      |
| Subsidiary hazard class |                          |
| Packing group           | I                        |
| Marine pollutant        | Yes                      |

## IMDG

|                                                                          |                          |
|--------------------------------------------------------------------------|--------------------------|
| UN number                                                                | UN1680                   |
| Proper shipping name:                                                    | Potassium cyanide, solid |
| UN classification                                                        | 6.1                      |
| Subsidiary hazard class                                                  | P                        |
| Packing group                                                            | I                        |
| Marine pollutant (Sea)                                                   | Yes                      |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | No information available |

## IATA

|                                     |                          |
|-------------------------------------|--------------------------|
| UN number                           | UN1680                   |
| Proper shipping name:               | Potassium cyanide, solid |
| UN classification                   | 6.1                      |
| Subsidiary hazard class             |                          |
| Packing group                       | I                        |
| Environmentally Hazardous Substance | Yes                      |

## Section 15: REGULATORY INFORMATION

## Japanese regulations

|                                                  |                                                                                                                                                                                                                                                    |
|--------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Fire Service Act                                 | Firefighting Inhibitor                                                                                                                                                                                                                             |
| Poisonous and Deleterious Substances Control Law | Poisonous Substances 1st. Grade                                                                                                                                                                                                                    |
| Industrial Safety and Health Act                 | Harmful Substances Whose Names Are to be Indicated on the Label (Law Art.57)<br>Notifiable Substances (Law Art.57-2)<br>Group 2 Specified Chemical Substance<br>Chemical Substances Hazardous to Skin, etc.(Regulations Article 594-2 Paragraph 1) |

|                                                                            |                                                                                                                                             |
|----------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Regulations for the carriage and storage of dangerous goods in ship</b> | Working Environment Evaluation Standards, Administrative Control Levels (Law Art.65-2, Para.1)                                              |
| <b>Civil Aeronautics Law</b>                                               | Toxic Substances - Poison (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1) |
| <b>Marine Pollution Prevention Law</b>                                     | Toxic and Infectious Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)          |
| <b>Pollutant Release and Transfer Register Law (2023.4.1-)</b>             | Marine pollutants (P and PP substances)                                                                                                     |
| <b>Class 1 - No.</b>                                                       | Class 1                                                                                                                                     |
| <b>Water Pollution Control Act</b>                                         | 144                                                                                                                                         |
| <b>Air Pollution Control Law</b>                                           | Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)                                   |
| <b>Soil Contamination Control Law</b>                                      | Hazardous Air Pollutants                                                                                                                    |
|                                                                            | Designated Hazardous Substances                                                                                                             |

| Chemical Name                          | Poisonous and Deleterious Substances Control Law | Industrial Safety and Health Act Substances (Law Art.57-2) | Pollutant Release and Transfer Register Law (2023.4.1-) |
|----------------------------------------|--------------------------------------------------|------------------------------------------------------------|---------------------------------------------------------|
| Potassium Cyanide<br>151-50-8 ( 98.0 ) | Applicable                                       | Applicable                                                 | Applicable                                              |

## Section 16: OTHER INFORMATION

### Key literature references and sources for data etc.

NITE: National Institute of Technology and Evaluation (JAPAN)  
[https://www.chem-info.nite.go.jp/en/chem/chrip/chrip\\_search/srhInput](https://www.chem-info.nite.go.jp/en/chem/chrip/chrip_search/srhInput)  
 IATA dangerous Goods Regulations  
 RTECS:Registry of Toxic Effects of Chemical Substances  
 Japan Industrial Safety and Health Association GHS Model SDS  
 Dictionary of Synthetic Organic Chemistry , SSOCJ, Koudansha Scientific Co.Ltd.  
 Chemical Dictionary, Kyouritsu Publishing Co., Ltd.  
 etc

### Record of SDS revisions

The following contents were revised. Hazards identification. Physical and chemical properties. Toxicological information. Regulatory information.

### Disclaimer

This SDS is according to JIS Z 7253: 2019. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

GHS Classification is according to JIS Z 7252:2019. \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**