

## SAFETY DATA SHEET

According to JIS Z 7253:2019  
**Revision date** 14-Feb-2023  
 Revision Number 3.02

## Section 1: PRODUCT AND COMPANY IDENTIFICATION

<b>Product Name</b>	Potassium Ion Standard Solution (K+:1,000ppm)
<b>Product Code</b>	163-13991

<b>Manufacturer</b>	FUJIFILM Wako Pure Chemical Corporation 1-2 Doshomachi 3-Chome Chuo-ku, Osaka 540-8605, Japan Phone: +81-6-6203-3741 Fax: +81-6-6203-5964
<b>Supplier</b>	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
<b>Emergency telephone number</b>	+81-6-6203-3741 / +81-3-3270-8571
<b>Recommended uses and restrictions on use</b>	For research use only

## Section 2: HAZARDS IDENTIFICATION

**GHS classification****Classification of the substance or mixture**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Pictograms**

**Signal word** None

**Hazard statements**

Not a hazardous substance or mixture according to the Globally Harmonized System (GHS)

**Precautionary statements-(Prevention)**

- Not applicable

**Precautionary statements-(Response)**

- Not applicable

**Precautionary statements-(Storage)**

- Not applicable

**Precautionary statements-(Disposal)**

- Not applicable

**Others**

**Other hazards** Not available

## Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Single Substance or Mixture** Mixture

Chemical Name	Weight-%	Molecular weight	ENCS	ISHL No.	CAS RN
Water	99.61	18.01	-	N/A	7732-18-5
Potassium nitrate	0.26	101.10	(1)-449	*	7757-79-1
Nitric Acid	0.13	63.01	(1)-394	*	7697-37-2

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

**Impurities and/or Additives:** Not applicable

## Section 4: FIRST AID MEASURES

### **Inhalation**

Remove to fresh air. 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. Immediate medical attention is required. 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**

Absorb dry sand, earth, sawdust and the waste. Collect empty container that can be sealed.

### **Recovery, 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 eyes and skin 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.

**Storage****Safe storage conditions****Storage conditions**

Store away from sunlight in well-ventilated place at room temperature (under 25 °C).  
Keep container tightly closed.

**Safe packaging material**

Polyethylene

**Incompatible substances**

Strong oxidizing agents

## 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
Nitric Acid 7697-37-2	2ppm, 5.2mg/m <sup>3</sup>	N/A	STEL: 4 ppm TWA: 2 ppm

**Personal protective equipment****Respiratory protection**

Protective mask

**Hand protection**

Protection gloves

**Eye protection**

protective eyeglasses or chemical safety goggles

**Skin and body protection**

Long-sleeved work clothes

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice.

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**Form****Color**

colorless

**Appearance**

liquid

**Odor**

no data available

**Melting point/freezing point**

no data available

**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**

mild acidic

**Viscosity (coefficient of viscosity)**

no data available

**Dynamic viscosity**

no data available

**Solubilities**

water , Ethanol : miscible .

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

no data available

**Vapour pressure**

no data available

**Specific Gravity / Relative density**

no data available

**Vapour density**

no data available

**Particle characteristics**

no data available

## Section 10: STABILITY AND REACTIVITY

**Stability**

**Reactivity** no data available  
**Chemical stability** Stable under recommended storage conditions.

**Hazardous reactions**

None under normal processing

**Conditions to avoid**

Extremes of temperature and direct sunlight

**Incompatible materials**

Strong oxidizing agents

**Hazardous decomposition products**

Nitrogen oxides (NOx), Metal oxides

## Section 11: TOXICOLOGICAL INFORMATION

**Acute toxicity**

Chemical Name	Oral LD50	Dermal LD50	Inhalation LC50
Water	> 90 mL/kg ( Rat )	N/A	N/A
Potassium nitrate	3015 mg/kg ( Rat )	N/A	N/A
Nitric Acid	N/A	N/A	334 ppm ( Rat ) 0.5 h

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

**Serious eye damage/ irritation**

Chemical Name	Serious eye damage/irritation source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**Respiratory or skin sensitization**

Chemical Name	Respiratory or Skin sensitization source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**Reproductive cell mutagenicity**

Chemical Name	germ cell mutagenicity source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**Carcinogenicity**

Chemical Name	Carcinogenicity source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

Chemical Name	NTP	IARC	ACGIH	JSOH (Japan)
Potassium nitrate 7757-79-1		Group 2A		
Nitric Acid 7697-37-2	-	Group 1 Group 2A	-	-

**Reproductive toxicity**

Chemical Name	Reproductive toxicity source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**STOT-single exposure**

Chemical Name	STOT -single exposure- source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**STOT-repeated exposure**

Chemical Name	STOT -repeated exposure- source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**Aspiration hazard**

Chemical Name	Aspiration Hazard source information
Potassium nitrate	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.

**Section 12: ECOLOGICAL INFORMATION****Ecotoxicity**

Chemical Name	Algae/aquatic plants	Fish	Crustacea
Nitric Acid	N/A	LC50 : <i>Gambusia affinis</i> 72 mg/L 96 h	N/A

**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 nitrate	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.
Nitric Acid	Based on the NITE GHS classification results.	Based on the NITE GHS classification results.

<b>Persistence and degradability</b>	No information available
<b>Bioaccumulative potential</b>	No information available
<b>Mobility in soil</b>	No information available
<b>Hazard to the ozone layer</b>	No information available
<b>Mobility</b>	

**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**

<b>UN number</b>	UN2031
<b>Proper shipping name:</b>	Nitric acid
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>Marine pollutant</b>	Not applicable

**IMDG**

<b>UN number</b>	UN2031
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<b>Proper shipping name:</b>	Nitric acid
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>Marine pollutant (Sea)</b>	Not applicable
<b>Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	No information available

**IATA**

<b>UN number</b>	UN2031
<b>Proper shipping name:</b>	Nitric acid
<b>UN classification</b>	8
<b>Subsidiary hazard class</b>	
<b>Packing group</b>	II
<b>Environmentally Hazardous Substance</b>	Not applicable

## Section 15: REGULATORY INFORMATION

**International Inventories**

<b>EINECS/ELINCS</b>	-
<b>TSCA</b>	-

**Japanese regulations**

<b>Fire Service Act</b>	Not applicable
<b>Poisonous and Deleterious Substances Control Law</b>	Not applicable
<b>Industrial Safety and Health Act</b>	Not applicable
<b>Regulations for the carriage and storage of dangerous goods in ship</b>	Corrosive Substances (Ordinance Art.3, Ministry of Transportation Ordinance Regarding Transport by Ship and Storage, Attached Table 1)
<b>Civil Aeronautics Law</b>	Corrosive Substances (Ordinance Art.194, MITL Notification for Air Transportation of Explosives etc., Attached Table 1)
<b>Marine Pollution Prevention Law</b>	Enforcement ordinance Appendix No. 1 Noxious liquid substance Category Y
<b>Pollutant Release and Transfer Register Law (~2023.3.31)</b>	Not applicable
<b><u>Pollutant Release and Transfer Register Law (2023/4/1~)</u></b>	<u>Not applicable</u>
<b>Water Pollution Control Act</b>	Harmful Substances (Law Art.2, Enforcement Order Art.2, Ordinance Designating Wastewater Standards Art.1)
<b>Export Trade Control Order</b>	Not applicable

## Section 16: OTHER INFORMATION

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

NITE: National Institute of Technology and Evaluation (JAPAN)  
<http://www.safe.nite.go.jp/japan/db.html>  
 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

**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 Z7252(2019). \*JIS: Japanese Industrial Standards

**End of Safety Data Sheet**