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Safety Data Sheet

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

Product identifier:

Product name: 2w/v%-Potassium chromate solution

SDS No. : E0198E-4

Recommended use of the chemical and restrictions on use

Research and Development

Details of the supplier of the safety data sheet

Manufacturer/Supplier: KISHIDA CHEMICAL CO., LTD.

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

Division: Chemical Safety Management Department

Telephone number: +81-6-6946-8061

FAX: +81-6-6946-1607

Section 2. Hazards identification

Classification of the substance or mixture

HEALTH HAZARDS

Skin corrosion/irritation: Category 2

Serious eye damage/eye irritation: Category 2

Respiratory sensitization: Category 1

Skin sensitization: Category 1

Germ cell mutagenicity: Category 1B

Carcinogenicity: Category 1A

Reproductive toxicity: Category 1B

Specific target organ toxicity - single exposure: Category 2 (blood system, cardiovascular system, liver, central nervous system, respiratory system, kidneys)

Specific target organ toxicity - repeated exposure: Category 2 (respiratory system)

ENVIRONMENT HAZARDS

Hazardous to the aquatic environment, short-term (acute): Category 3

Hazardous to the aquatic environment, long-term (chronic): Category 3

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

Label elements

Hazard pictograms:



Signal word: Danger

Hazard statements

H315 Causes skin irritation

H319 Causes serious eye irritation

H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled

H317 May cause an allergic skin reaction

H340 May cause genetic defects

H350 May cause cancer

H360 May damage fertility or the unborn child

H371 May cause damage to organs (blood system, cardiovascular system, liver, central nervous system, respiratory system, kidneys)
H373 May cause damage to organs through prolonged or repeated exposure (respiratory system)
H412 Harmful to aquatic life with long lasting effects

Precautionary statements

Prevention

P203 Obtain, read and follow all safety instructions before use.
P273 Avoid release to the environment.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P284 In case of inadequate ventilation wear respiratory protection.
P264 Wash hands thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P264 + P265 Wash hands thoroughly after handling. Do not touch eyes.
P270 Do not eat, drink or smoke when using this product.

Response

P308 + P316 IF exposed or concerned: Get emergency medical help immediately.
P318 IF exposed or concerned, get medical advice.
P319 Get medical help if you feel unwell.
P342 + P316 If experiencing respiratory symptoms: Get emergency medical help immediately.
P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P302 + P352 IF ON SKIN: Wash with plenty of water.
P333 + P317 If skin irritation or rash occurs: Get medical help.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P317 If eye irritation persists: Get medical help.

Storage

P405 Store locked up.

Disposal

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Specific danger/hazard

Health hazard

See "11. Toxicological Information".

Section 3. Composition/information on ingredients

Substance/mixture:

Mixture

Ingredient name	Content (%)	CAS RN	ENCS	Chemical formula
Potassium chromate	2.0	7789-00-6	1-661	K2CrO4
Water	98	7732-18-5	-	H2O

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

Section 4. First aid measures

Descriptions of first aid measures

General measures

IF exposed or concerned, get medical advice.

Get medical help if you feel unwell.

IF exposed or concerned: Get emergency medical help immediately.

IF INHALED

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

If experiencing respiratory symptoms: Get emergency medical help immediately.

Get medical help if you feel unwell.

IF ON SKIN

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse affected areas with water or shower.

IF ON SKIN: Wash with plenty of water.

If skin irritation or rash occurs: Get medical help.

IF IN EYES

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 help.

IF SWALLOWED

Rinse mouth.

IF SWALLOWED: Get medical help if you feel unwell.

Section 5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media

Use appropriate extinguishing media suitable for surrounding facilities.

Unsuitable extinguishing media

Unsuitable extinguishing media data is not available.

Specific hazards arising from the substance or mixture

Fire may produce irritating, corrosive and/or toxic gases.

Runoff from fire control or dilution water may cause pollution.

See "10.Stability and Reactivity".

Advice for firefighters

Special extinguishing method

Evacuate non-essential personnel to safe area.

Special protective equipment and precautions for fire-fighters

Wear fire resistant or flame retardant clothing.

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

Firefighters should wear self-contained breathing apparatus with a full facepiece operated in the positive pressure mode.

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unauthorized personnel away.

Ventilate area until material pick up is complete.

Wear proper protective equipment.

Environmental precautions

Prevent spills from entering sewers, watercourses, low areas or rivers. To be careful not discharged to the environment without being properly handled waste water contaminated.

Methods and materials for containment and cleaning up

Liquid: Absorb spill with inert material (dry sand, earth, et al), then place in a chemical waste container.

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

Preventive measures for secondary accident

Collect spillage.

Section 7. Handling and storage

Precautions for safe handling

Engineering measures

(Measures to prevent operator exposure)

Do not breathe dust/fume/gas/mist/vapors/spray.

(Measures to prevent fire and explosion)

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

(Local ventilation/general ventilation)

Exhaust/ventilator should be available.

(Precautions)

Avoid contact with skin.

Avoid contact with eyes.

Advice on safe handling

Obtain, read and follow all safety instructions before use.

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

Wash hands and contaminated parts thoroughly after handling.

When using do not eat, drink or smoke.

Avoidance of contact

See Section 10: Stability and Reactivity.

Advice on general occupational hygiene

Wash hands thoroughly after handling.

Do not touch eyes.

Do not eat, drink or smoke when using this product.

Contaminated work clothing should not be allowed out of the workplace.

Take off contaminated clothing and wash it before reuse.

Conditions for safe storage, including any incompatibilities

Conditions for safe storage

Keep container tightly closed.

Store locked up. (P405)

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

Storage in accordance with local/national regulation.

Safe packaging material

Use closed unbreakable containers.

Section 8. Exposure controls/personal protection

Control parameters

Permissible concentration

Administrative Control Levels and Concentration standard value

(Potassium chromate)

Japan control value 0.05mg-Cr/m3

Occupational exposure limit values
The Japan Society for Occupational Health
(Potassium chromate)
0.05mg-Cr(VI)/m3
ACGIH
(Potassium chromate)
TWA: 0.0002mg-Cr(VI)/m3(I); STEL: 0.0005mg-Cr(VI)/m3(I)(Water-soluble compounds) (Lung & sinonasal cancer; resp tract irr; asthma)
Notation
(Potassium chromate)
Skin; DSEN; RSEN
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, such as personal protective equipment
Recommend to use protective equipment in conformity with the standards.
Use appropriate protective equipment in accordance with local/national regulation.
Respiratory protection
Wear respiratory protection (dust-proof mask/gas mask). Select chemical cartridge corresponding to type of gases when using a gas mask.
Hand protection
Wear impervious protective glove.
Eye/face protection
Wear eye/face protection. Wear safety goggles in cases gas is generated.
Skin and body protection
Wear protective clothing.

Section 9. Physical and Chemical Properties

Physical state: Liquid
Color: Yellow, Clear
Odor data is not available.
Melting point/Freezing point data is not available.
Boiling point, initial boiling point, or boiling range data is not available.
Flammability 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: Soluble
Solubility in solvent data is not available.
Partition coefficient n-octanol/water data is not available.
Vapor pressure data is not available.
Density and/or relative density: 1.01
Relative vapor density (Air=1) data is not available.
Particle characteristics data is not available.

Other information

Other information is not available.

Section 10. Stability and Reactivity

Reactivity

Not available.

Chemical stability

Stable under normal storage/handling conditions.

Possibility of hazardous reactions

(Potassium chromate)

The solution in water is a weak base. The substance is a strong oxidant. It reacts with combustible and reducing materials. (ICSC 1770)

Conditions to avoid

Contact with incompatible materials.

Contact with fire source.

Incompatible materials

Reducing agents, Combustible materials

Hazardous decomposition products

Chrome compounds

Section 11. Toxicological Information

Information on toxicological effects

Acute toxicity

Acute toxicity (Oral)

[Data for components of the product]

[NITE-CHRIP]

(Potassium chromate)

mouse LD50: 180 mg/kg (source: NITE)

Skin corrosion/irritation

[Product]

Category 2, Causes skin irritation

[Data for components of the product]

[NITE-CHRIP]

(Potassium chromate)

Category 1 (source: NITE)

Serious eye damage/irritation

[Product]

Category 2, Causes serious eye irritation

[Data for components of the product]

[NITE-CHRIP]

(Potassium chromate)

Category 1 (source: NITE)

Respiratory or skin sensitization

Respiratory sensitization

[Product]

Category 1, May cause allergy or asthma symptoms or breathing difficulties if inhaled

[Data for components of the product]

[NITE-CHRIP]

(Potassium chromate)
Category 1 (source: NITE)
Skin sensitization
[Product]
Category 1, May cause an allergic skin reaction
[Data for components of the product]
[NITE-CHRIP]
(Potassium chromate)
Category 1 (source: NITE)
Germ cell mutagenicity
[Product]
Category 1B, May cause genetic defects
[Data for components of the product]
[NITE-CHRIP]
(Potassium chromate)
Category 1B (source: NITE)
Carcinogenicity
[Product]
Category 1A, May cause cancer
[Data for components of the product]
[NITE-CHRIP]
(Potassium chromate)
Category 1A (source: NITE)
[IARC]
(Potassium chromate)
Group 1 : Carcinogenic to humans
[ACGIH]
(Potassium chromate)
A1(as Cr(VI)): Confirmed Human Carcinogen
[JSOH]
(Potassium chromate)
Group 1: The agents which are carcinogenic to humans
[NTP]
(Potassium chromate)
Known : Known to be Human Carcinogens
[EU]
(Potassium chromate)
Category 1B; Substances presumed to have carcinogenic potential for humans
Reproductive toxicity
[Product]
Category 1B, May damage fertility or the unborn child
[Data for components of the product]
[NITE-CHRIP]
(Potassium chromate)
Category 1B (source: NITE)
Specific target organ toxicity – single exposure
[Product]
Category 2, May cause damage to organs
[Data for components of the product]
[NITE-CHRIP]

(Potassium chromate)
Category 1 (blood system, cardiovascular system, liver, central nervous system, respiratory system, kidneys) (source: NITE)

Specific target organ toxicity - repeated exposure

[Product]
Category 2, May cause damage to organs through prolonged or repeated exposure

[Data for components of the product]
[NITE-CHRIP]
(Potassium chromate)
Category 1 (respiratory system) (source: NITE)

Aspiration hazard data is not available.

Section 12. Ecological Information

Toxicity

Aquatic toxicity

[Product]
Category 3, Harmful to aquatic life
Category 3, Harmful to aquatic life with long lasting effects

[Data for components of the product]
Hazardous to the aquatic environment, short-term (acute)
[NITE-CHRIP]
(Potassium chromate)
Crustacea (a kind of Daphnia) 48-hour EC50: 0.18 mg/L (source: NITE)

Water solubility

(Potassium chromate)
62.9 g/100 mL (20℃) (source: ICSC, 2013)

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.

Section 13. Disposal considerations

Waste treatment methods

Waste from residues

Avoid release to the environment.
Dispose of contents/container as industrial waste. Accordance with local/national regulation.

Section 14. Transport Information

UNRTDG

UN number : Not regulated

IMDG Code (International Maritime Dangerous Goods Regulations)

UN number : Not regulated

IATA (Dangerous Goods Regulations)
UN number : Not regulated
Environmental hazards
Marine pollutants (yes/no) : no
Environmentally hazardous substance/mixture (yes/no) : no

Section 15. Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture
U.S. Toxic Substances Control Act (TSCA) Inventory
Chemicals listed in TSCA Inventory
Water; Potassium chromate
Other regulatory information
Ensure this material in compliance with federal requirements and ensure conformity to local regulations.

Section 16. Other information

References and sources for data
Globally Harmonized System of classification and labelling of chemicals, UN
Recommendations on the TRANSPORT OF DANGEROUS GOODS 23rd edit., 2023 UN
IMDG Code, 2024 Edition (Incorporating Amendment 42-24)
IATA Dangerous Goods Regulations (67th Edition) 2026
2024 EMERGENCY RESPONSE GUIDEBOOK (US DOT)
2026 TLVs and BEIs. (ACGIH)
JIS Z 7252 : 2025
JIS Z 7253 : 2025
Recommendation of occupational exposure limits (2024-2025) (JSOH)
Supplier's data/information
General Disclaimer
© KISHIDA CHEMICAL CO., LTD.
Unauthorized translation or modification is prohibited.
Please provide SDS to customers for selling or transferring.
All chemicals have unknown hazard. Handle the product with care.
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 Data published in Japan (National Institute of Technology and Evaluation (NITE) Chemical Risk Information Platform (NITE-CHRIP), up to FY2024).