SDS

Safety Data Sheet

1. IDENTIFICATION

Product Identifier: **Potassium Chromate Solution, 17.5% w/w (20% w/v)**

Product Code(s): P1003

Synonyms: Chromate of Potash Solution; Dipotassium Chromate Solution.

Recommended Use: For manufacturing, industrial, and laboratory use only. For use as a catalyst or as a laboratory reagent.

Uses Advised Against: Not for food, drug, or household use.

Supplier: Rocky Mountain Reagents, Inc.
4621 Technology Drive, Golden, CO 80403
Phone: (303) 762-0800 Fax: (303) 762-1240

Emergency Phone Number: For health emergency, call poison control: (800) 222-1222.

2. HAZARDS IDENTIFICATION

Hazard Classifications:

Acute Toxicity – Oral:	Category 4
Skin Corrosion/Irritation:	Category 2
Eye Damage/Irritation:	Category 2A
Sensitization – Skin:	Category 1B
Germ Cell Mutagenicity:	Category 1B
Carcinogenicity:	Category 1B

Signal Word: DANGER

Hazard Statements:
Harmful if swallowed.
Causes skin irritation.
Causes serous eye irritation.
May cause allergic skin reaction.
May cause genetic defects.
May cause cancer.

Pictograms:



Precautionary Statements:

Prevention: Wash thoroughly after handling.
Do not eat, drink, or smoke while using this product.
Wear protective gloves, protective clothing, eye protection, and face protection.
Avoid breathing fumes, mists, vapors, or spray.
Contaminated work clothing must not be allowed out of the workplace.
Obtain special instructions before reuse.
Do not handle until all safety instructions have been read and understood.

Response: If exposed or concerned: Get medical attention.
If swallowed: Call a poison center or doctor if you feel unwell. Rinse mouth.
If on skin: Wash with plenty of water. If skin irritation or rash occurs: Get medical attention.
Take off contaminated clothing and wash it before reuse.
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 attention.

Storage: Store locked up.

Disposal: Dispose of contents and container in accordance with local, regional, national, and international regulations.

Hazards Not Otherwise Classified: Very toxic to aquatic life.

Toxicity Statement: Not applicable.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Component	Common Name / Synonyms	CAS#	Chemical Formula	% by Weight
Water	Water	7732-18-5	H_2O	82.5
Potassium Chromate	Chromate of Potash	7789-00-6	K_2CrO_4	17.5

Trade Secret Statement: Not applicable.

4. FIRST AID MEASURES

First Aid Procedures:

Inhalation: Move to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Ingestion: Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, keep head low so that vomit does not enter lungs. Rinse mouth. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

Skin Contact: Wash skin with plenty of water for at least 15 minutes. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if symptoms occur.

Eye Contact: Check for and remove contact lenses. Immediately flush eyes with gentle but large stream of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention if symptoms occur.

General Advice: Poison information centers in each state can provide additional assistance for scheduled poisons. Ensure that medical personnel and those providing first aid are aware of the material(s) involved and take precautions to protect themselves.

Symptoms and Effects: Irritation, burns, headache, nausea, vomiting, diarrhea, sore throat, itchiness, abdominal pain, fever, blurred vision, difficulty breathing, intense thirst. Toxic if swallowed, inhaled, or absorbed through the skin. May cause burns to the eyes, skin, respiratory tract, and gastrointestinal tract. May affect the respiratory system, mucous membranes, central nervous system, and gastrointestinal tract. Prolonged or repeated exposure may affect the kidneys, liver, bones, lungs, genetic material, skin, and eyes; may cause allergic reactions and cancer.

Immediate Medical Care/ Special Treatment: Call a doctor or poison control center immediately if you feel unwell or are concerned. Treat symptomatically. Symptoms may be delayed.

5. FIREFIGHTING MEASURES

Suitable Extinguishing Media: Water spray, dry powder, alcohol resistant foam, carbon dioxide.

Unsuitable Extinguishing Media: Do not use a solid (straight) water stream, as it may scatter and spread fire.

Hazardous Combustion Products: Potassium oxides, chromium oxides, toxic fumes.

Specific Hazards: May decompose upon heating to produce corrosive and/or toxic fumes.

Special Protective Equipment/ Precautions for Firefighters: As in any fire, wear MSHA/NIOSH-approved (or equivalent), self-contained, positive-pressure or pressure-demand breathing apparatus and full protective gear. In the event of fire and/or explosion, do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions and Protective Equipment: Isolate hazard area and keep unnecessary and unprotected personnel away from the area of the leak or spill. Wear appropriate personal protective equipment (see Section 8). Avoid contact with eyes, skin, and clothing.

Emergency Procedures: In case of chemical emergency, or if unsure how to address an accidental release, consult a professional (see Section 1).

Methods for Containment: Stop the flow of material, if this is without risk. Prevent entry into waterways, sewer, basements, or confined areas. Dike the spilled material, where this is possible. Product should not be released to the environment. Contain and recover liquid when possible.

Methods for Cleanup: Absorb spill with an inert material (e.g. vermiculite, dry sand, earth, cloth, or fleece) and place in a non-combustible container for reclamation or disposal. Do not flush to sewer. Clean contaminated surface thoroughly. Residues from spills can be diluted with water. Never return spills in original containers for reuse. Clean up in accordance with all applicable regulations.

7. HANDLING AND STORAGE

Handling: Wear personal protective equipment (see Section 8). Provide sufficient air exchange and/or exhaust in work areas. Avoid contact with skin, eyes, clothing, and combustible materials. Do not breathe vapors or spray mist. Do not ingest. When using, do not eat, drink, or smoke. Keep away from incompatible materials (see Section 10). Handle in accordance with good industrial hygiene and safety practice. Wash thoroughly after handling. Containers of this material may be hazardous when empty, as they retain product residues. Observe all warnings and precautions listed for this product.

Storage: Store in a cool, dry, ventilated area. Store in a segregated and approved area away from incompatible materials (see Section 10). Store in original container. Keep containers tightly closed and upright. Keep away from food, drink, and animal foodstuffs. Keep out of the reach of children. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of this product.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

Exposure Limits:

Water:	No information found.	
Potassium Chromate:	ACGIH (TLV):	0.05 mg/m^3
	OSHA (PEL):	0.005 mg/m^3
	NIOSH (REL):	0.001 mg/m^3

Engineering Controls: Ensure adequate ventilation. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Measures:

Eye/Face Protection: Wear safety glasses with side shields or goggles and a face shield. Maintain approved eye wash station and accessible rinse facilities in work area.

Skin Protection: Wear appropriate chemical resistant clothing (with long sleeves) and appropriate chemical resistant gloves.

Respiratory Protection: An air-purifying, NIOSH-approved respirator with appropriate cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Use a positive-pressure, air-supplied respirator if there is any potential for an uncontrolled release, if exposure levels are unknown, or if any other circumstances exist where air-purifying respirators may not provide adequate protection.

Specific Requirements for Personal Protective Equipment: Ensure that glove material is compatible with this product. This information is available from glove manufacturers.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Clear, yellow, transparent liquid.

Odor: Odorless.

Odor Threshold: No information found.

Formula Weight: 194.19 as potassium chromate

pH: 8.5 – 10.0 (50 g/L aqueous at 20 °C)

Melting/Freezing Point: No information found.

Boiling Point/Range: No information found.

Decomposition Temperature: No information found.

Flash Point: Not applicable.

Auto-ignition Temperature: Not applicable.

Flammability: Not applicable.

Flammability/Explosive Limits:	Not applicable.
Solubility:	Miscible with water.
Vapor Pressure:	No information found.
Vapor Density:	No information found.
Specific Gravity:	1.15 (Water = 1)
Evaporation Rate:	No information found.
Viscosity:	No information found.
Partition Coefficient (n-octanol/water):	No information found.

10. STABILITY AND REACTIVITY

Reactivity Data: May be corrosive to certain materials (see Section 11).

Chemical Stability: Stable under normal conditions.

Conditions to Avoid: Incompatible materials.

Incompatible Materials: Oxidizers, organic materials, metals.

Hazardous Decomposition Products: Potassium oxides, chromium oxides.

Possibility of Hazardous Reactions: May react vigorously or violently if exposed to extreme thermal conditions or to the incompatible materials listed above. May decompose upon heating to produce corrosive and/or toxic fumes.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Routes of Exposure: Inhalation, ingestion, skin contact, eye contact.

Acute Effects: Toxic if swallowed, inhaled, absorbed through the skin, or exposed to the eyes. May cause burns to the eyes, skin, respiratory tract, and gastrointestinal tract. May affect the respiratory system, mucous membranes, central nervous system, and gastrointestinal tract.

Chronic Effects: Prolonged or repeated exposure may affect the kidneys, liver, bones, lungs, genetic material, skin, and eyes; may cause allergic reactions and cancer.

Toxicological Data:

Water:	Not applicable.
Potassium Chromate:	LD_{50} Oral, Mouse: 180 mg/kg May cause mutagenic and sensitization effects based on animal data.

Symptoms of Exposure: Irritation, burns, headache, nausea, vomiting, diarrhea, sore throat, itchiness, abdominal pain, fever, blurred vision, difficulty breathing, intense thirst.

Carcinogenic Effects: This product may cause cancer.

IARC: Potassium Chromate: Group 1 – Carcinogenic to humans

ACGIH:	Potassium Chromate:	A1 – Confirmed human carcinogen
NTP:	Potassium Chromate:	Known to be a human carcinogen
OSHA:	Potassium Chromate:	Specifically regulated carcinogen

12. ECOLOGICAL INFORMATION

Ecotoxicological Data: Water:

Not applicable.

Potassium Chromate:

EC_{50}, Water Flea (Daphnia magna):	15 mg/L 48 h
LC_{50}, Fathead Minnow (Pimephales promelas):	40 mg/L 96 h

Persistence and Degradability: No information found.

Environmental Effects: Very toxic to aquatic organisms with long-lasting effects. Avoid release to the environment.

13. DISPOSAL INFORMATION

Disposal Instructions: All wastes must be handled in accordance with local, state, and federal regulations. Minimize exposure to product waste (see Section 8). Do not dispose unused waste down drains or into sewers.

Contaminated Packaging: Because emptied containers retain product residue, follow label warnings even after container is emptied. Offer rinsed packaging material to local recycling facilities.

Waste Codes: No information found.

14. TRANSPORT INFORMATION

DOT: Not regulated.

Environmental Hazard Regulations: Potassium Chromate: Regulated as a marine pollutant by IMDG.

Other Transport Precautions: DOT Reportable Quantity: Potassium Chromate: 10 lb

15. REGULATORY INFORMATION

U.S. Federal Regulations:

OSHA: This product is considered a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

TSCA Inventory: All components of this product are on the U.S. TSCA Inventory.

U.S. EPCRA (SARA Title III):

Section 302: No information found.

Sections 311/312:

Hazard Category	List (Yes/No)
Section 311 – Hazardous Chemical	Yes
Immediate Hazard	Yes
Delayed Hazard	Yes
Fire Hazard	No
Pressure Hazard	No
Reactivity Hazard	No

Section 313: Potassium Chromate

CERCLA Reportable Quantities: No information found.

International Inventories:

Country or Region	Inventory Name	On Inventory (Yes/No)*
Australia	Australian Inventory of Chemical Substances (AICS)	N/A
Canada	Domestic Substances List (DSL)	N/A
Canada	Non-Domestic Substances List (NDSL)	N/A
China	Inventory of Existing Chemical Substances in China (IECSC)	N/A
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	N/A
Europe	European List of Notified Chemical Substances (ELINCS)	N/A
Japan	Inventory of Existing and New Chemical Substances (ENCS)	N/A
Korea	Existing Chemicals List (ECL)	N/A
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	N/A

*A "Yes" indicates that the listed component(s) of this product comply with the inventory requirements administered by the governing country(s).

16. OTHER INFORMATION

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