



LABORATORY CHEMICALS AND CONSUMABLES

MATERIAL SAFETY DATA SHEET

POTASSIUM CHROMATE

1. Chemical Product and Company information.

Product name: Potassium chromate

Contact Information:

Radchem cc
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Alberton 1454
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2. Hazard Identification

Very hazardous in case of skin contact (irritant), of eye contact (irritant), of ingestion, . Hazardous in case of skin contact (sensitizer), of inhalation (lung irritant). Slightly hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive). Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation. Severe over-exposure can result in death. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.

3. Composition / information on ingredients

CAS #: 7789-00-6

Synonym: Bi-potassium Chromate; Chromate of potass; Di-potassium Chromate; Neutral potassium chromate; Potassium chromate (VI)

Chemical Name: Chromic acid, Di-potassium salt

Chemical Formula: K_2CrO_4

4. First Aid Measures

Eye Contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

Serious Skin Contact: Wash with a disinfectant soap and cover the contaminated skin with an anti-bacterial



cream. Seek immediate medical attention.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Serious Inhalation: Evacuate the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek medical attention.

Ingestion: If swallowed, do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.

Serious Ingestion: Not available.

5. Fire-fighting measures

Flammability of the Product: Non-flammable.

Fire Hazards in Presence of Various Substances: combustible material

Explosion Hazards in Presence of Various Substances: Risks of explosion of the product in presence of mechanical impact: Not available. Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions: Not applicable

Special Remarks on Fire Hazards: Non combustible. May increase intensity of fire if in contact with combustible materials When heated to decomposition it emits toxic fumes.

Special Remarks on Explosion Hazards: Not available

6. Accidental release measures

Small Spill: Use appropriate tools to put the spilled solid in a convenient waste disposal container.

Large Spill: Oxidizing material. Poisonous solid. Stop leak if without risk. Do not get water inside container. Avoid contact with a combustible material (wood, paper, oil, clothing...). Keep substance damp using water spray. Do not touch spilled material. Use water spray to reduce vapours. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Be careful that the product is not present at a concentration level above TLV. Check TLV on the MSDS and with local authorities.

7. Handling and storage

Precautions: Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Do not ingest. Do not breathe dust. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as combustible materials, organic materials.

Storage: Keep container tightly closed. Keep container in a cool, well-ventilated area. Separate from acids, alkalise, reducing agents and combustibles. See NFPA 43A, Code for the Storage of Liquid and Solid Oxidizers.

8. Exposure controls/personal protection

Engineering Controls: Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.



Personal Protection: Splash goggles. Lab coat. Dust respirator. Be sure to use an approved/certified respirator or equivalent. Gloves.

Personal Protection in Case of a Large Spill: Splash goggles. Full suit. Dust respirator. Boots. Gloves. A self contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

9. Physical and chemical properties

Physical state and appearance: Solid. (Granular solid. Crystals solid)

Odour: Odourless

Taste: Not available

Colour: Yellow

Boiling Point: Not available

Melting Point: 975°C

Critical Temperature: Not available

Specific Gravity: 2.73 (Water = 1)

Vapour Density: Not available

Volatility: Not available

Odour Threshold: Not available

Ionicity (in Water): Not available.

Dispersion Properties: See solubility in water

Solubility: Easily soluble in cold water, hot water

10. Stability and reactivity

Stability: The product is stable.

Instability Temperature: Not available.

Conditions of Instability: Incompatible materials

Incompatibility with various substances: Reactive with combustible materials, organic materials

Corrosivity: Non-corrosive in presence of glass.

Special Remarks on Reactivity: Hydrazine, combustible, organic, or other readily oxidizable materials: wood, paper, sulphur, aluminium, plastics, chromic acid, chromates.

Special Remarks on Corrosivity: Not available

Polymerization: Will not occur.

11. Toxicological information

Routes of Entry: Absorbed through skin. Inhalation. Ingestion

Toxicity to Animals: Acute oral toxicity (LD50): 180 mg/kg [Mouse].

Chronic Effects on Humans: CARCINOGENIC EFFECTS: Classified A1 (Confirmed for human.) by ACGIH, 1 (Proven for human.) by IARC. MUTAGENIC EFFECTS: Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: kidneys, lungs, liver, upper



respiratory tract, skin, eyes.

Other Toxic Effects on Humans: Very hazardous in case of skin contact (irritant), of ingestion. Hazardous in case of skin contact (sensitizer), of inhalation (lung irritant). Slightly hazardous in case of skin contact (corrosive, permeator), of eye contact (corrosive).

Special Remarks on Toxicity to Animals: Not available

Special Remarks on Chronic Effects on Humans: May cause adverse reproductive effects. May affect genetic material (mutagenic). May cause cancer.

Special Remarks on other Toxic Effects on Humans: Acute Potential Health Effects: Skin: Causes severe irritation and possible skin burns. Contact with broken skin may cause ulcers (chrome sores) and absorption, which may cause systemic poisoning affecting behaviour/central nervous system, kidney and liver. Absorption may also affect the gastrointestinal tract and cause nausea and vomiting. Eyes: Causes severe irritation, blurred vision, redness, pain and possible eye burns. May cause conjunctivitis, ulceration, and corneal injury/abnormalities or blindness. Inhalation: Corrosive. It is destructive to the tissues of the mucous membrane and the upper respiratory tract. It may cause severe irritation of the upper respiratory tract, mucous membranes, with pain, burns, and inflammation. It may cause burns to the respiratory, chemical bronchitis with coughing and difficulty in breathing, ulceration and perforation of the nasal septum. Symptoms may include sore throat, coughing, shortness of breath, laboured breathing. It may cause pulmonary sensitization or allergic asthma. Higher exposures may cause pulmonary oedemas. Ingestion: It can cause severe burns of the mouth, throat and stomach leading to death. Symptoms may include sore throat, nausea, vomiting, diarrhoea, violent gastroenteritis, peripheral vascular collapse, dizziness, intense thirst, muscle cramps, shock, abnormal bleeding, fever, liver damage, and kidney damage (acute renal failure, toxic nephritis, albuminuria, necrosis in the kidney), violent gastrointestinal distress, possible methemoglobin formation, coma, and circulatory collapse. Chronic Potential Health Effects: Although rare, system effects on the blood, liver, and kidneys from industrial exposure have been reported. Principal toxic effects of chromates from occupational point of view are exerted on skin, nasal mucosa, eye, larynx, and lungs. Signs and symptoms of chronic eye and skin contact may include lacrimation, conjunctivitis, eczematous contact dermatitis, penetrating ulcers that don't heal. Signs and symptoms of chronic inhalation may include perforation of the nasal septum, congestion, chronic rhinitis, polyps of the upper respiratory tract, inflammation of the lungs, emphysema, tracheitis, bronchitis, pharyngitis, adhesions of the diaphragm, inflammation of the larynx, respiratory irritations. Signs and symptoms of chronic ingestion are loss of appetite, nausea, vomiting, inflammation of the liver or even acute hepatitis with jaundice, leukocytosis, leukopenia, monocytosis, and eosinophilia.

12. Ecological information

Ecotoxicity: Not available

BOD5 and COD: Not available

Products of Biodegradation: Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.

Toxicity of the Products of Biodegradation: The products of degradation are less toxic than the product itself.

Special Remarks on the Products of Biodegradation: Not available

13. Disposal considerations

Waste Disposal: Waste must be disposed of in accordance with federal, state and local environmental control regulations.

14. Transport information

DOT Classification: CLASS 5.1: Oxidizing material

Identification: : Oxidizing solid, n.o.s. (Potassium chromate) UNNA: 1479 PG: III

Special Provisions for Transport: Not applicable

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