# Safety Data Sheet

## Potassium Dichromate

CAROLINA®
www.carolina.com

## Section 1 Product Description

| | |
|---|---|
| **Product Name:** | Potassium Dichromate |
| **Recommended Use:** | Science education applications |
| **Synonyms:** | Dichromic Acid, Potassium Salt; Bichromate of Potash, Dipotassium Dichromate |
| **Distributor:** | Carolina Biological Supply Company<br>2700 York Road, Burlington, NC 27215<br>1-800-227-1150 |
| **Chemical Information:** | 800-227-1150 (8am-5pm (ET) M-F) |
| **Chemtrec:** | 800-424-9300 (Transportation Spill Response 24 hours) |

## Section 2 Hazard Identification

**Classification of the chemical in accordance with paragraph (d) of §1910.1200;**

**DANGER**

May intensify fire; oxidizer. Fatal if swallowed or if inhaled. Harmful in contact with skin. Causes severe skin burns and eye damage. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause genetic defects. May cause cancer. May damage fertility or the unborn child. Causes damage to organs through prolonged or repeated exposure. Very toxic to aquatic life with long lasting effects.

**GHS Classification:**
Skin Corrosion/Irritation Category 1B, Respiratory Sensitisation Category 1, Germ Cell Mutagenicity Category 1B, Carcinogenicity Category 1A, Reproductive Toxicity Category 1B, Specific Target Organ Systemic Toxicity (STOT) - Repeated Exposure Category 1, Hazardous to the aquatic environment - Chronic Category 1, Oxidizing Solid Category 2, Acute Toxicity - Inhalation Dust / Mist Category 2, Acute Toxicity - Oral Category 2, Acute Toxicity - Dermal Category 4

**Other Safety Precautions:** IF exposed or concerned: Get medical advice/attention.

## Section 3 Composition / Information on Ingredients

| Chemical Name | CAS # | % |
|---|---|---|
| Potassium Dichromate | 7778-50-9 | 100 |

## Section 4 First Aid Measures

**Emergency and First Aid Procedures**

| | |
|---|---|
| **Inhalation:** | IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. |
| **Eyes:** | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| **Skin Contact:** | IF ON SKIN: Wash with plenty of soap and water. Wash contaminated clothing before reuse. IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. |
| **Ingestion:** | IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. IF SWALLOWED: rinse mouth. Do NOT induce vomiting. |

## Section 5 Firefighting Procedures

**Extinguishing Media:** Use dry chemical, CO2 or appropriate foam.

**Fire Fighting Methods and Protection:** Firefighters should wear full protective equipment and NIOSH approved self-contained breathing apparatus.

**Fire and/or Explosion Hazards:** Fire or excessive heat may produce hazardous decomposition products. Substance is an oxidizer.

**Hazardous Combustion Products:** Chromium (VI) compounds

## Section 6 Spill or Leak Procedures

**Steps to Take in Case Material Is Released or Spilled:** Exposure to the spilled material may be severely irritating or toxic. Follow personal protective equipment recommendations found in Section 8 of this SDS. Personal protective equipment needs must be evaluated based on information provided on this sheet and the special circumstances created by the spill including; the material spilled, the quantity of the spill, the area in which the spill occurred, and the expertise of employees in the area responding to the spill. Never exceed any occupational exposure limits. Avoid the generation of dusts during clean-up.

Prevent the spread of any spill to minimize harm to human health and the environment if safe to do so. Wear complete and proper personal protective equipment following the recommendation of Section 8 at a minimum. Dike with suitable absorbent material like granulated clay. Gather and store in a sealed container pending a waste disposal evaluation. Do not allow the spilled product to enter public drainage system or open waterways. Collect spillage.

## Section 7 Handling and Storage

**Handling:** Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. − No smoking. Keep/Store away from clothing/…/combustible materials. Take any precaution to avoid mixing with combustibles. Do not breathe dust/fume/gas/mist/vapors/spray. Wash thoroughly after handling. Do no eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Avoid release to the environment. Wear protective gloves/protective clothing/eye protection/face protection. Wear respiratory protection.

**Storage:** Store in a well-ventilated place. Keep container tightly closed. Store locked up. Keep container tightly closed in a cool, well-ventilated place.

**Storage Code:** Yellow - Reactive. Store separate and away from incompatible material.

## Section 8 Protection Information

| | ACGIH | | OSHA PEL | |
|---|---|---|---|---|
| **Chemical Name** | **(TWA)** | **(STEL)** | **(TWA)** | **(STEL)** |
| Potassium Dichromate | 0.05 mg/m3 TWA (as Cr) | N/A | 5 µg/m3 TWA | N/A |

**Control Parameters**

**Engineering Measures:** Local exhaust ventilation or other engineering controls are normally required when handling or using this product to avoid overexposure.

**Personal Protective Equipment (PPE):** Lab coat, apron, eye wash, safety shower.

**Respiratory Protection:** No respiratory protection required under normal conditions of use. Provide general room exhaust ventilation if symptoms of overexposure occur as explained Section 11. A respirator is not normally required.

**Respirator Type(s):** None required where adequate ventilation is provided. If airborne concentrations are above the applicable exposure limits, use NIOSH/MSHA approved respiratory protection.

**Eye Protection:** Wear chemical splash goggles when handling this product. Have an eye wash station available.

**Skin Protection:** Avoid skin contact by wearing chemically resistant gloves, an apron and other protective equipment depending upon conditions of use. Inspect gloves for chemical break-through and replace at regular intervals. Clean protective equipment regularly. Wash hands and other exposed areas with mild soap and water before eating, drinking, and when leaving work.

**Gloves:** Nitrile

## Section 9 Physical Data

**Formula:** K2Cr2O7
**Molecular Weight:** 294.19
**Appearance:** Orange Crystalline Solid

**Vapor Pressure:** No data available
**Evaporation Rate (BuAc=1):** No data available
**Vapor Density (Air=1):** No data available

**Odor:** No data available
**Odor Threshold:** No data available
**pH:** No data available
**Melting Point:** 398 C
**Boiling Point:** No data available
**Flash Point:** No data available
**Flammable Limits in Air:** No data available

**Specific Gravity:** 2.676 at 25°C
**Solubility in Water:** Soluble
**Log Pow (calculated):** No data available
**Autoignition Temperature:** No data available
**Decomposition Temperature:** 500 C
**Viscosity:** No data available
**Percent Volatile by Volume:** 0%

## Section 10 Reactivity Data

**Reactivity:** No data available
**Chemical Stability:** Stable under normal conditions.
**Conditions to Avoid:** Dusting. contact with flammable materials
**Incompatible Materials:** Strong reducing agents, flammable liquids
**Hazardous Decomposition Products:** Cr (VI) compounds
**Hazardous Polymerization:** Will not occur

## Section 11 Toxicity Data

**Routes of Entry** Inhalation, ingestion, eye or skin contact.
**Symptoms (Acute):** Respiratory disorders, Coffee Ground Emesis, Circulatory Shock, Glottic Edema, urinary symptoms, Methemoglobinemia, Impaired Kidney Function, Dermititis
**Delayed Effects:** Dermititis

**Acute Toxicity:**

| Chemical Name | CAS Number | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---|---|---|---|
| Potassium Dichromate | 7778-50-9 | Oral LD50 Mouse 190 mg/kg Oral LD50 Rat 25 mg/kg | Dermal LD50 Rabbit 14 mg/kg | Inhalation LC50 (4h) Rat 29 MG/CU M |

**Carcinogenicity:**

| Chemical Name | CAS Number | IARC | NTP | OSHA |
|---|---|---|---|---|
| Potassium Dichromate | 7778-50-9 | Listed | Listed | Listed |

**Chronic Effects:**
**Mutagenicity:** Evidence of a mutagenic effect.
**Teratogenicity:** Evidence of a teratogenic effect (birth defect).
**Sensitization:** Evidence of a sensitization effect.
**Reproductive:** Evidence of negative reproductive effects.
**Target Organ Effects:**
**Acute:** Respiratory system
**Chronic:** May cause sensitisation by inhalation and skin contact.

## Section 12 Ecological Data

**Overview:** Severe ecological hazard. This product may be toxic to plants and/or wildlife.
**Mobility:** This material is expected to have high mobility in soil. It absorbs weakly to most soil types.
**Persistence:** No data
**Bioaccumulation:** Bioconcentration may occur.
**Degradability:** Does not biodegrade readily.
**Other Adverse Effects:** No data

| Chemical Name | CAS Number | Eco Toxicity |
|---|---|---|
| Potassium Dichromate | 7778-50-9 | Aquatic LC50 (96h) Bluegill Sunfish 320 MG/L |

## Section 13 Disposal Information

**Disposal Methods:** Dispose in accordance with all applicable Federal, State and Local regulations. Always contact a permitted waste disposer (TSD) to assure compliance.
**Waste Disposal Code(s):** If discarded, this product is considered a RCRA toxic waste.

# Safety Data Sheet

## Section 14 Transport Information

**Ground - DOT Proper Shipping Name:**
UN3086
TOXIC SOLIDS, OXIDIZING, N.O.S. (Potassium Dichromate)
Division 6.1(5.1),
Packing Group I

**Air - IATA Proper Shipping Name:**
UN3086
TOXIC SOLIDS, OXIDIZING, N.O.S. (Potassium Dichromate)
Division 6.1(5.1),
Packing Group I

## Section 15 Regulatory Information

**TSCA Status:** All components in this product are on the TSCA Inventory.

| Chemical Name | CAS Number | § 313 Name | § 304 RQ | CERCLA RQ | § 302 TPQ | CAA 112(2) TQ |
|---|---|---|---|---|---|---|
| Potassium Dichromate | 7778-50-9 | No | 10 lb RQ | 10 lb final RQ; 4.54 kg final RQ | No | No |

**California Prop 65:** WARNING: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

## Section 16 Additional Information

**Revised: 05/29/2015** **Replaces: 04/28/2015** **Printed: 05-29-2015**

The information provided in this (Material) Safety Data Sheet represents a compilation of data drawn directly from various sources available to us. Carolina Biological Supply makes no representation or guarantee as to the suitability of this information to a particular application of the substance covered in the (Material) Safety Data Sheet.

**Glossary**

| | | | |
|---|---|---|---|
| ACGIH | American Conference of Governmental Industrial Hygienists | NTP | National Toxicology Program |
| CAS | Chemical Abstract Service Number | OSHA | Occupational Safety and Health Administration |
| CERCLA | Comprehensive Environmental Response, Compensation, and Liability Act | PEL | Permissible Exposure Limit |
| DOT | U.S. Department of Transportation | ppm | Parts per million |
| IARC | International Agency for Research on Cancer | RCRA | Resource Conservation and Recovery Act |
| N/A | Not Available | SARA | Superfund Amendments and Reauthorization Act |
| | | TLV | Threshold Limit Value |
| | | TSCA | Toxic Substances Control Act |
| | | IDLH | Immediately dangerous to life and health |