

Potassium Dichromate 0.015M

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: Potassium Dichromate 0.015M

Synonyms/Generic Names: Potassium Bichromate, Bichromate of Potash

Product Number: 9319

Product Use: Industrial, Manufacturing or Laboratory use

Manufacturer: Columbus Chemical Industries, Inc.
N4335 Temkin Rd.
Columbus, WI. 53925

For More Information: 920-623-2140 (Monday-Friday 8:00-4:30)
www.columbuschemical.com

In Case of Emergency Call: CHEMTREC - 800-424-9300 or 703-527-3887 (24 Hours/Day, 7 Days/Week)

2. HAZARDS IDENTIFICATION

Hazard Not Otherwise Classified (HNOC): None

Signal Word: Danger

Pictograms:



GHS Classification:

Respiratory sensitizer	Category 1
Skin sensitizer	Category 1
Germ cell mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive toxicity	Category 1B

GHS Label Elements, including precautionary statements:

Hazard Statements:

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.

Precautionary Statements:

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P363	Wash contaminated clothing before reuse.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P281	Use personal protective equipment as required.
P285	In case of inadequate ventilation wear respiratory protection.
P304+P341	IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.
P342+P311	If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.
P302+P352	IF ON SKIN: wash with plenty of soap and water.
P333+P313	IF SKIN irritation or rash occurs: Get medical advice/attention.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local regulations.

Potential Health Effects

Eyes	May cause eye irritation or damage.
Inhalation	May be dangerous if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.
Skin	May cause skin irritation or damage.
Ingestion	May be fatal if swallowed.

NFPA Ratings

Health	2
Flammability	0
Reactivity	0
Specific hazard	N/A

HMIS Ratings

Health	2
Fire	0
Reactivity	0

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	Weight %	CAS #	EINECS# / ELINCS#	Formula	Molecular Weight
Water	Balance	7732-18-5	231-791-2	H ₂ O	18.00 g/mol
Potassium Dichromate	0.40 – 0.50	7778-50-9	231-906-6	K ₂ Cr ₂ O ₇	294.19 g/mol

4. FIRST-AID MEASURES

Eyes	Immediately rinse with plenty of water for at least 15 minutes and seek medical attention immediately.
Inhalation	Move casualty to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention immediately.
Skin	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and wash using soap. Get medical attention immediately.
Ingestion	Do Not Induce Vomiting! Never give anything by mouth to an unconscious person. If conscious, wash out mouth with water. Get medical attention immediately.
General Advice	Get medical advice/attention if you feel unwell. Show this safety data sheet to the doctor.

5. FIRE-FIGHTING MEASURES

Suitable (and unsuitable) extinguishing media	Product is not flammable. Use appropriate media for adjacent fire. Cool containers with water.
Special protective equipment and precautions for firefighters	Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.
Specific hazards arising from the chemical	Emits toxic fumes (oxides of potassium and chromium) under fire conditions. (See also Stability and Reactivity section).

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures	See section 8 for recommendations on the use of personal protective equipment.
Environmental precautions	Prevent spillage from entering drains. Any release to the environment may be subject to federal/national or local reporting requirements.
Methods and materials for containment and cleaning up	Neutralize spill. Absorb with inert material. Sweep up and place in suitable, closed containers for disposal. Clean surfaces thoroughly with water to remove residual contamination. Dispose of all waste and cleanup materials in accordance with regulations.

7. HANDLING AND STORAGE

Precautions for safe handling

See section 8 for recommendations on the use of personal protective equipment. Use with adequate ventilation. Wash thoroughly after using. Keep container closed when not in use. Avoid the formation of aerosols.

Conditions for safe storage, including any incompatibilities

Store in cool, dry well ventilated area. Keep away from incompatible materials (see section 10 for incompatibilities).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls:

Component	Exposure Limits	Basis	Entity
Chromium (VI)	0.005 mg/m ³	TWA	OSHA PELs
	0.0002 mg/m ³	TWA	ACGIH® TLVs®
	0.0005 mg/m ³	STEL	ACGIH® TLVs®
	0.0002 mg/m ³	TWA	NIOSH RELs

TWA: Time Weighted Average over 8 hours of work.

TLV: Threshold Limit Value over 8 hours of work.

REL: Recommended Exposure Limit

PEL: Permissible Exposure Limit

STEL: Short Term Exposure Limit during x minutes.

IDLH: Immediately Dangerous to Life or Health

WEEL: Workplace Environmental Exposure Levels

CEIL: Ceiling

Personal Protection

Eyes	Wear chemical safety glasses or goggles and face shield.
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Inhalation	Provide local exhaust, preferably mechanical. If exposure levels are excessive, use an approved respirator.
Skin	Wear nitrile or rubber gloves, apron or lab coat. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.
Other	Handle in accordance with good industrial hygiene and safety practices.

Other Recommendations

Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance (physical state, color, etc.)	Light yellowish-orange
Odor	Not Available
Odor threshold	Not Available
pH	4.0 - 6.0
Melting point/freezing point	Not Available
Initial boiling point and boiling range	Not Available
Flash point	Not Flammable
Evaporation rate	Not Available
Flammability (solid, gas)	Not Flammable
Upper/lower flammability or explosive limit	Not Explosive
Vapor pressure	Not Available
Vapor density	Not Available
Relative density	1.0020 (water = 1.0000)
Solubility (ies)	Soluble
Partition coefficient: n-octanol/water	Not Available
Auto-ignition temperature	Not Available
Decomposition temperature	Not Available

10. STABILITY AND REACTIVITY

Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur.
Conditions to Avoid	Not Available
Incompatible Materials	Organic materials, powdered metals, hydrazine.
Hazardous Decomposition Products	Oxides of potassium and chromium.

11. TOXICOLOGICAL INFORMATION**Acute Toxicity***Potassium Dichromate*

Skin	LD50 Dermal - rabbit – 1,170 mg/kg
Eyes	Not Available
Respiratory	LC50 Inhalation - rat – male and female - 4 h – 0.083 mg/l
Ingestion	LD50 Oral - rat – male and female – 90.5 mg/kg

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ATE Skin	22,727 mg/kg
Eyes	Not Available
ATE Respiratory	20.75 mg/l
ATE Ingestion	333,333 mg/kg

Carcinogenicity

IARC	1 - Group 1: Carcinogenic to humans (Chromium (VI)).
ACGIH	A1: Confirmed human carcinogen (Chromium (VI)).
NTP	Known to be carcinogens (Chromium (VI)).
OSHA	1910.1026 (Chromium (VI)).

Signs & Symptoms of Exposure

Skin	It causes skin irritation and may cause skin burns.
Eyes	Irritation, redness, watering eyes, itchiness, possible loss of vision, transient corneal bulging, residual irregular astigmatism, and anesthesia of the area after bulging resolves.
Respiratory	Sneezing, rhinorrhea, throat erythema, nasal septum lesions, or perforation with bleeding, discharge, or crusting of eye.
Ingestion	abdominal and esophageal pain, nausea, vomiting, hypermotility, diarrhea, gastrointestinal tract irritation and bleeding, respiratory distress, cyanosis, coma, and death.

Chronic Toxicity	May cause damage to organs through prolonged or repeated exposure.
Teratogenicity	Not Available
Mutagenicity	May alter genetic material.
Embryotoxicity	Not Available
Specific Target Organ Toxicity	Lungs, Kidneys, Blood
Reproductive Toxicity	Presumed human reproductive toxicant.
Respiratory/Skin Sensitization	Positive- Magnusson and Kligman.

12. ECOLOGICAL INFORMATION**Ecotoxicity***Potassium Dichromate*

Aquatic Vertebrate	LC50 - Lepomis macrochirus (Bluegill sunfish) - 0.131 mg/l - 96.0 h
Aquatic Invertebrate	EC50 - Daphnia magna (Water flea) - 0.62 mg/l - 48 h
Terrestrial	EC50 - Pseudokirchneriella subcapitata - 0.31 mg/l - 72 h

Persistence and Degradability	Not Available for inorganic substances
Bioaccumulative Potential	Oncorhynchus mykiss (rainbow trout) Bioconcentration factor (BCF): 17.4
Mobility in Soil	Not Available
PBT and vPvB Assessment	Not Available
Other Adverse Effects	Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

Waste Residues	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product or residue.
Product Containers	Users should review their operations in terms of the applicable federal/national or local regulations and consult with appropriate regulatory agencies if necessary before disposing of waste product container.

The information offered in section 13 is for the product as shipped. Use and/or alterations to the product may significantly change the characteristics of the material and alter the waste classification and proper disposal methods.

14. TRANSPORTATION INFORMATION

US DOT*	RQ, UN3082, Environmentally Hazardous Substances, Liquid n.o.s. (Potassium Dichromate), 9 pg III
TDG*	RQ, UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID N.O.S. (POTASSIUM DICHROMATE), 9 PG III
IMDG*	RQ, UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID N.O.S. (POTASSIUM DICHROMATE), 9 PG III
Marine Pollutant	No
IATA/ICAO*	RQ, UN3082, Environmentally Hazardous Substances, Liquid n.o.s. (Potassium Dichromate), 9 pg III

* Not regulated in packages under 2300lbs

15. REGULATORY INFORMATION

TSCA Inventory Status	All ingredients are listed on the TSCA Active inventory.
DSL / NDSL	All ingredients are listed on the DSL inventory.
California Proposition 65	Listed: Chromium (hexavalent compound)
Rhode Island: Hazardous Substance List	Listed: Potassium Dichromate
Massachusetts: Toxic or Hazardous Substance List, Right to Know	Listed: Potassium Dichromate
Pennsylvania: Hazardous Substance List	Listed: Potassium Dichromate
New Jersey: Right to Know Hazardous Substance List	Listed: Potassium Dichromate
SARA 302	Not Listed
SARA 304	Not Listed
SARA 311	Acute Health Hazards, Chronic Health Hazards.
SARA 312	Acute Health Hazards, Chronic Health Hazards.
SARA 313	Listed: Potassium Dichromate
WHMIS Canada	Not Listed

16. OTHER INFORMATION

Revision	Date
Original	05/03/2022

Disclaimer: The information provided in this Safety Data Sheet ("SDS") is correct to the best of our knowledge, information, and belief at the date of publication. The information in this SDS relates only to the specific Product identified under Section 1, and does not relate to its use in combination with other materials or products, or its use as to any particular process. Those handling, storing, or using the Product should satisfy themselves that they have current information regarding the particular way the Product is handled, stored or used and that the same is done in accordance with federal, state and local law. WE DO NOT MAKE ANY WARRANTY, EXPRESS OR IMPLIED, INCLUDING (WITHOUT LIMITATION) WARRANTIES WITH RESPECT TO THE COMPLETENESS OR CONTINUING ACCURACY OF THE INFORMATION CONTAINED HEREIN OR WITH RESPECT TO FITNESS FOR ANY PARTICULAR USE. WE DO NOT ASSUME RESPONSIBILITY AND EXPRESSLY DISCLAIM LIABILITY FOR LOSS, INJURY, DAMAGE OR EXPENSE ARISING OUT OF OR IN ANY WAY CONNECTED WITH THE HANDLING, STORAGE, USE OR DISPOSAL OF THIS PRODUCT.