

Safety Data Sheet
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

SECTION 1: PRODUCT AND COMPANY IDENTIFICATION

Product Name	Potassium Dichromate, ACS Primary Standard	
NCL Catalog Number	P-52X	
Product Description	Laboratory chemical	
Manufacturer	EMD Chemicals Inc.	PO Box 70, 480 Democrat Road Gibbstown, NJ 08027
Supplier	NCL of Wisconsin, Inc. Telephone: 1-800-648-7836 Email: nclabs@nclabs.com	PO Box 8, Birnamwood, WI 54414 Fax: 715-449-2454 Emergency Contact: 1-800-424-9300 (Chemtrec)

SECTION 2: HAZARDS IDENTIFICATION

GHS Classification

Oxidizing Solids	Category 2
Acute Toxicity	Oral Category 3
Acute Toxicity	Dermal Category 1
Acute Toxicity	Inhalation Category 2
Skin Corrosion	Category 1B
Serious Eye Damage	Category 1
Respiratory Sensitization	Category 1
Germ Cell Mutagenicity	Category 1B
Carcinogenicity	Category 1B
Reproductive Toxicity	Category 1B
Specific Target Organ Toxicity	Repeated Exposure Category 1
Aquatic Acute	Category 1
Chronic Aquatic	Category 1



Signal Word

Danger

Hazard Statements

H272	May intensify fire; oxidizer.
H301	Toxic if swallowed.
H310+H330	Fatal in contact with skin or if inhaled.
H314	Causes severe skin burns and eye damage.
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H340	May cause genetic defects.
H350	May cause cancer.
H360	May damage fertility or the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure if inhaled.
H410	Very toxic to aquatic life with long lasting effects.

Precautionary Statements

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P220	Keep away from clothing and other combustible materials.
P260	Do not breathe dust.

P262	Do not get in eyes, on skin, or on clothing.
P264	Wash exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P271	Use only outdoors or in a well-ventilated area.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P310	Immediately call a POISON CENTER or doctor.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P310	Immediately call a POISON CENTER or doctor.
P363	Wash contaminated clothing before reuse.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P310	Immediately call a POISON CENTER or doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310	Immediately call a POISON CENTER or doctor.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
P391	Collect spillage.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P405	Store locked up.
P501	Dispose of contents/container to comply with local, state and federal regulations.

Other Hazards Not Contributing to the Classification

None under normal conditions.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Identity

Cr₂K₂O₇

Substance

Name	CAS #	Approximate %
Potassium Dichromate	7778-50-9	100

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General First Aid Measures

Never give anything by mouth to an unconscious person. IF exposed or concerned: Get medical advice/attention.

If Inhaled

Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.

In Case of Skin Contact

Remove/take off immediately all contaminated clothing. Wash contaminated clothing before reuse. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor.

In Case of Eye Contact

Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor.

If Swallowed

Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor.

Most Important Symptoms/Effects Acute and Delayed

Symptoms/Injuries	Causes severe skin burns and eye damage. May cause genetic defects. Suspected of damaging fertility or the unborn child. Causes damage to organs (kidneys, liver) through prolonged or repeated exposure.
After Inhalation	Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction. May cause cancer by inhalation.
After Skin Contact	Repeated exposure to this material can result in absorption through skin causing significant health hazard. Toxic in contact with skin.
After Eye Contact	Causes serious eye damage.
After Ingestion	Swallowing a small quantity of this material will result in serious health hazard.

Indication of Immediate Medical Attention and Special Treatment Needed

Seek medical advice if you feel unwell.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media	Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
Unsuitable Extinguishing Media	Do not use a heavy water stream.

Special Hazards Arising from the Chemical

Potassium oxides and chromium oxides.

Special Protective Actions for Fire-Fighters

Wear self-contained breathing apparatus and protective clothing. Keep exposed containers cool with water spray. Dilute toxic gases with water spray.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Personal Precautions	Use personal protective equipment (see section 8). Safety glasses, gloves, gas/dust mask. Avoid dust formation. Avoid breathing dust, vapors, mist or gas. Ensure adequate ventilation and evacuate personnel to safe areas.
Environmental Precautions	Prevent entry to surface and ground waters.
Methods and Materials for Containment and Cleaning Up	Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Ensure compliance with local, state and federal regulations.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling	Avoid contact with eyes and skin. Avoid breathing dust. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of dust. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Conditions for Safe Storage Including any Incompatibilities	Keep in original container, tightly closed and stored in a cool, dry, ventilated area. Separate from acids, alkalis, reducing agents and combustibles.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Potassium Dichromate (7778-50-9)		
USA ACGIH	ACGIH TLV (mg/m ³)	0.05 mg/m ³
USA OSHA	OSHA PEL (TWA) (mg/m ³)	0.1 mg/m ³

Appropriate Engineering Controls

Material should be handled or transferred in a fume hood or with equivalent ventilation. Maintain eye-wash fountain and quick-drench facilities in work area.

Individual Protection Measures

Eye/Face Protection

Avoid all unnecessary exposure.
Use chemical safety goggles and/or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

Skin Protection	Protective gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.
Respiratory Protection	Wear appropriate mask.
Other Information	Do not eat, drink or smoke when using this product.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Color	Orange-red
Molecular Weight	294.2 g/mol
Odor	Odorless
Odor Threshold	Not determined
pH	Not determined
Melting Point/Freezing Point	398.05° C
Initial Boiling Point and Boiling Range	Not determined
Flash Point	Not determined
Oxidizing Properties	May intensify fire
Evaporation Rate	Not determined
Flammability (Solid, Gas)	Not determined
Upper/Lower Flammability/Explosive Limits	Not determined
Vapor Pressure	Not determined
Vapor Density	Not determined
Relative Density	Not determined
Solubility	Soluble in water
Partition Coefficient: n-octanol/water	Not determined
Auto-Ignition Temperature	Not determined
Decomposition Temperature	500.05° C
Viscosity	Not determined

SECTION 10: STABILITY AND REACTIVITY

Reactivity	No data available
Chemical Stability	Stable under ordinary conditions of use and storage.
Possibility of Hazardous Reactions	May react violently with reducing agents.
Conditions to Avoid	No data available
Incompatible Materials	Highly reactive with metals. Reactive with reducing agents and combustible materials.
Hazardous Decomposition Products	Chromium oxides and potassium oxide

SECTION 11: TOXICOLOGICAL INFORMATION

Acute Toxicity Toxic if swallowed. Fatal in contact with skin or if inhaled.

Potassium Dichromate (7778-50-9)	
LD50 oral rat	25 mg/kg
LD50 dermal rabbit	14 mg/kg
LC50 inhalation rat (mg/l)	0.088 mg/l – 4 h

Skin Corrosion/Irritation	Causes severe skin burns.
Serious Eye Damage/Irritation	Causes severe eye damage.
Respiratory or Skin Sensitization	May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Germ Cell Mutagenicity	May alter genetic material. In vivo tests showed mutagenic effects.
Carcinogenicity	May cause cancer. IARC: Group 3 Carcinogenic to humans.

Reproductive Toxicity	May damage fertility or the unborn child.
Specific Target Organ Toxicity (Single Exposure)	Not classified
Specific Target Organ Toxicity (Repeated Exposure)	Causes damage to organs through prolonged or repeated exposure if inhaled.
Aspiration Hazard	Not classified
Potential Adverse Human Health Effects and Symptoms	Toxic if swallowed. Fatal in contact with skin or if inhaled.
Symptoms/Injuries After Inhalation	Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause cancer.
Symptoms/Injuries After Skin Contact	Causes severe skin burns. Repeated exposure to this material can result in absorption through the skin causing significant health hazard. Toxic in contact with skin.
Symptoms/Injuries After Eye Contact	Causes serious eye damage.
Symptoms/Injuries After Ingestion	Swallowing a small quantity of this material will result in serious health hazard.
Other Information	Damage to the lungs, kidney injury may occur. Prolonged or repeated exposure can cause vomiting, diarrhea, and lung irritation. Causes stomach irregularities.

SECTION 12: ECOLOGICAL INFORMATION

Ecology – Water Toxicity Very toxic to aquatic life with long lasting results.

Potassium Dichromate (7778-50-9)	
LC50 fish 1	0.131 mg/l – 96.0 h
Mortality NOEC	6 mg/l – 7.0 d, Pimephales promelas
Mortality NOEC 2	0.016-0.064 mg/l – 7 d
EC50 Daphnia	0.035 mg/l – 48 h, Daphnia Magna.
EC50 Algae	0.31 mg/l – 72 h, Psudokirchneriella subcapitata

Persistence and Degradability May cause long-term adverse effects to the environment.

Bioaccumulative Potential

Potassium Dichromate (7778-50-9)	
BCF fish 1	200 ug/l – 180 d, Oncorhynchus mykiss
Bioconcentration Factor (BCF)	17.4

Mobility in Soil Not established

Other Adverse Effects Very toxic to aquatic life with long lasting effects. Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Methods of Disposal

Disposal Recommendations Dispose of contents/containers in accordance with local, state and federal regulations. Hazardous waste shall not be mixed together with other waste.

Other Information Hazardous waste due to toxicity. Avoid release to the environment.

SECTION 14: TRANSPORT INFORMATION

UN Number	3288
UN Shipping Name	Toxic solids, inorganic, n.o.s. (Potassium dichromate)
Transport Hazard Class(es)	6.1
Packing Group	I
Environmental Hazards	Not applicable
Transport in Bulk	Not applicable
Other Precautions	Not applicable

SECTION 15: REGULATORY INFORMATION

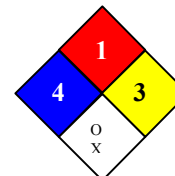
Potassium Dichromate (7778-50-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
Reportable Quantity	10 lb
SARA 311/312 Hazards	Reactivity, Acute Health, and Chronic Health Hazard

SECTION 16: OTHER INFORMATION

Revision Date: 04/08/2015

NFPA Hazards

Health Hazard	4: Very short exposure could cause death or major residual injury.
Fire Hazard	1: Must be preheated for ignition; flashpoint above 200°F (93°C).
Reactivity/Instability	3: Capable of detonation or explosive decomposition but requires a strong initiating source, must be heated under confinement before initiation, reacts explosively with water, or will detonate if severely shocked.
Specific Hazard	OX: This denotes an oxidizer, a chemical which can greatly increase the rate of combustion/fire.



HMIS III Rating

Health	4: Life-threatening, major or permanent damage may result from single or repeated overexposures.
Flammability	0: Materials that will not burn.
Physical Hazard	0: Materials that are normally stable, even under fire conditions, and will not react with water.
Personal Protection	J

P-52X	
Health	4
Flammability	0
Physical Hazard	0
Personal Protection	J

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END OF SAFETY DATA SHEET