

SAFETY DATA SHEET

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifiers

Product name	Potassium dichromate
CAS number	7778-50-9
Synonyms	Potassium bichromate.; Dipotassium dichromate; Dichromic acid, dipotassium salt

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Laboratory Chemicals
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1.3 Details of the supplier of the safety data sheet

Company	Lab Alley, LLC 12501 Pauls Valley Road Austin, Texas 78737 U.S.A.
Telephone	512-668-9918
Fax	512-886-4008

1.4 Emergency telephone

Emergency Phone #	US & Canada: 1-800-535-5053	INFOTRAC
	International 1-352-323-3500	INFOTRAC

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Oxidizing solids (Category 2)
 Acute Oral Toxicity (Category 3)
 Acute Dermal Toxicity (Category 4)
 Acute Inhalation Toxicity - Dusts and Mists (Category 2)
 Skin Corrosion/Irritation (Category 1B)
 Serious Eye Damage/Eye Irritation (Category 1)
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 Respiratory Sensitization (Category 1)
 Skin Sensitization (Category 1)
 Germ Cell Mutagenicity (Category 1B)
 Carcinogenicity (Category 1A)
 Reproductive Toxicity (Category 1B)
 Specific Target Organ Toxicity - single exposure (Category 3)
 Target Organs - Respiratory System
 Specific Target Organ Toxicity - repeated exposure (Category 1)
 Target Organs - Respiratory System, Liver, Kidney, Blood.

2.2 GHS Label elements, including precautionary statements

Pictogram	
Signal Word	Danger
Hazard statements	May intensify fire; oxidizer Fatal if inhaled Fatal if swallowed Harmful in contact with skin Causes severe skin burns and eye damage May cause an allergic skin reaction May cause allergy or asthma symptoms or breathing difficulties if inhaled May cause respiratory irritation May cause genetic defects May cause cancer May damage fertility. May damage the unborn child Causes damage to organs through prolonged or repeated exposure

Precautionary statements

Prevention

Obtain special instructions before use
Do not handle until all safety precautions have been read and understood
Use personal protective equipment as required
Wash face, hands and any exposed skin thoroughly after handling
Do not eat, drink or smoke when using this product
Do not get in eyes, on skin, or on clothing
Do not breathe dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area
Wear respiratory protection
In case of inadequate ventilation wear respiratory protection
Contaminated work clothing should not be allowed out of the workplace
Wear protective gloves
Keep away from heat/sparks/open flames/hot surfaces. - No smoking
Keep/Store away from clothing/ other combustible materials
Take any precaution to avoid mixing with combustibles

Response

Immediately call a POISON CENTER or doctor/physician

Inhalation

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Skin

Wash contaminated clothing before reuse
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
If skin irritation or rash occurs: Get medical advice/attention

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

Ingestion

Rinse mouth
Do NOT induce vomiting

Fire

In case of fire: Use CO2, dry chemical, or foam for extinction

Storage

Store locked up
Store in a well-ventilated place. Keep container tightly closed

Disposal

Dispose of contents/container to an approved waste disposal plant

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

Very toxic to aquatic life with long lasting effects

SECTION 3: Composition/information on ingredients

3.1 Components

Chemical name	Common name and synonyms	CAS number	Concentration
Potassium dichromate	Potassium bichromate	7778-50-9	>95%

SECTION 4: First aid measures

4.1 Description of first-aid measures

General advice

If inhaled	Move to fresh air. If breathing is difficult, give oxygen. Do not use mouth-to-mouth resuscitation if victim ingested or inhaled the substance; induce artificial respiration with a respiratory medical device. Immediate medical attention is required.
In case of skin contact	Wash off immediately with plenty of water for at least 15 minutes. Immediate medical attention is required.
In case of eye contact	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Immediate medical attention is required.
If swallowed	Do not induce vomiting. Call a physician or Poison Control Center immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns by all exposure routes. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause allergic skin reaction.. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media	Substance is nonflammable; use agent most appropriate to extinguish surrounding fire.
Unsuitable extinguishing media	No information available.

5.2 Specific hazards arising from the substance or mixture

May ignite combustibles (wood, paper, oil, clothing, etc.).

5.3 Special protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

5.4 Further information

Flash Point No information available.

Autoignition Temperature No information available.

Explosion limits

Upper No data available

Lower No data available

Sensitivity to Mechanical Impact No information available.

Sensitivity to Static Discharge No information available.

NFPA

Health	Flammability	Instability	Physical hazards
4	0	1	OX

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas. Avoid dust formation.

6.2 Environmental precautions

Should not be released into the environment. See Section 12 for additional ecological information. Avoid release.

6.3 Methods and materials for containment and cleaning up

Sweep up or vacuum up spillage and collect in suitable container for disposal. Keep away from clothing and other combustible materials. Avoid dust formation.

6.4 Reference to other sections

See Section 2 for full list of hazard and precaution statements.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Use only under a chemical fume hood. Wear personal protective equipment. Do not get in eyes, on skin, or on clothing. Keep away from clothing and other combustible materials. Avoid dust formation. Do not breathe vapors/dust. Do not ingest. Wash hands before breaks and immediately after handling the product.

Hygiene measures

Handle in accordance with good industrial hygiene and safety practice

7.2 Conditions for safe storage, including any incompatibilities

Storage conditions

Keep containers tightly closed in a dry, cool and well-ventilated place. Do not store near combustible materials.

Incompatibilities

Strong oxidizing agents, Reducing agents, Acids, Strong bases, Acid anhydrides

SECTION 8: Exposure controls/personal protection

8.1 Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Component	Type	Value
Potassium dichromate	(Vacated) Ceiling	0.05 mg/m ³

US. ACGIH Threshold Limit Values

Component	Type	Value
Potassium dichromate	TWA	0.1 mg/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Component	Type	Value
Potassium dichromate	TWA	0.0002 mg/m ³
Potassium dichromate	IDLH	15 mg/m ³

Biological occupational exposure limits

No information available.

8.2 Exposure controls

Appropriate engineering controls

Use only under a chemical fume hood. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment

Eye/face protection

Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Body Protection

Wear appropriate protective gloves and clothing to prevent skin exposure.

Respiratory protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Control of environmental exposure

Do not let product enter drains.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical State	Solid
Appearance	Orange
Odor	Odorless
Odor Threshold	No information available.
pH	4 (5 % Solution)
Melting Point/Range	398°C / 748.4°F
Boiling Point/Range	500°C / 932°F
Evaporation Rate	No information available.
Flammability (solid)	No information available.
Flammability or explosive limit	
Upper	No data available
Lower	No data available
Vapor Pressure	No information available.
Vapor Density	No information available.
Density	2.676
Solubility	No information available.
Partition coefficient; n-octanol/water	No data available
Autoignition Temp	No information available.
Decomposition Temp	> 500°C
Viscosity	No information available.
Molecular Formula	K ₂ Cr ₂ O ₇
Molecular Weight	294.19
VOC Content(%)	No information available.
Oxidizing properties	No information available.

9.2 Other safety information

No information available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No

10.2 Chemical stability

Oxidizer: Contact with combustible/organic material may cause fire.

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to avoid

Incompatible products. Excess heat. Combustible material. Avoid dust formation.

10.5 Incompatible materials

Strong oxidizing agents, Reducing agents, Acids, Strong bases, Acid anhydrides

10.6 Hazardous decomposition products

Chromium oxide

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Product Information, Component Information

Acute toxicity

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Potassium dichromate	25 mg/kg (Rat)	1150 mg/kg (Rabbit)	0.09 mg/L/4h (Rat)

Skin corrosion/irritation

Causes burns by all exposure routes

Serious eye damage/eye irritation

Causes burns by all exposure routes

Respiratory or skin sensitization

May cause sensitization by inhalation. May cause sensitization by skin contact.

Germ cell mutagenicity

May cause heritable genetic damage

Carcinogenicity

Component	CAS	IARC	NTP	ACGIH	OSHA	Mexico
Potassium dichromate	7778-50-9	Group 1	Not listed	A1	X	A1

Specific target organ toxicity - single exposure

Respiratory system.

Specific target organ toxicity - repeated exposure

Respiratory system, Liver, Kidney, Blood.

Reproductive toxicity

May impair fertility.

Chronic effects

Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

11.2 Additional Information

No information available.

SECTION 12: Ecological information

12.1 Toxicity

Do not empty into drains.

Component		
Potassium dichromate	Freshwater Fish	15.41 - 30.36 mg/L LC50 96 h 14 - 20.9 mg/L LC50 96 h 113.6 - 155.7 mg/L LC50 96 h 139 mg/L LC50 96 h 320 mg/L LC50 96 h 65.6 - 137.6 mg/L LC50 96 h 12.3 mg/L LC50 96 h 21.209 - 30.046 mg/L LC50 96 h 23 - 41.2 mg/L LC50 96 h 24.81 - 34.55 mg/L LC50 96 h 26 mg/L LC50 96 h
	Water Flea	EC50: 1.4 mg/L 24h

12.2 Persistence and degradability

No information available.

12.3 Bio accumulative potential

No information available

12.4 Mobility in soil

No information available

12.5 Results of PBT and vPvB assessment

No information available

12.6 Endocrine disrupting properties

No information available.

12.7 Other adverse effects

See actual entry in RTECS for complete information.

SECTION 13: Disposal considerations

13.1 Waste Disposal Methods

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

SECTION 14: Transport information

DOT (US)

UN Number	UN3087
Proper Shipping name	Oxidizing solid, toxic, n.o.s.
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packaging Group	II
Technical name	Potassium dichromate

IMDG

UN Number	UN3087
Proper Shipping name	Oxidizing solid, toxic, n.o.s.
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packaging Group	II
Technical name	Potassium dichromate

IATA

UN Number	UN3087
Proper Shipping name	Oxidizing solid, toxic, n.o.s.
Hazard Class	5.1
Subsidiary Hazard Class	6.1
Packaging Group	II

SECTION 15: Regulatory information**US federal regulations****TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Listed, Potassium dichromate (CAS #7778-50-9), Section 6

CERCLA Hazardous Substance List (40 CFR 302.4)

Listed (Potassium Dichromate (CAS 7778-50-9)). RQ: 10 lb

SARA 304 Emergency release notification

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)

Listed (Potassium Dichromate (CAS 7778-50-9)).

Specifically Regulated Chemicals: 5 µg/m³ TWA ; 2.5 µg/m³ Action Level

Superfund Amendments and Reauthorization Act of 1986 (SARA)**SARA 302 Extremely hazardous substance**

Not listed.

SARA 311/312 Hazardous

See section 2 for more information.

SARA 313 (TRI reporting)

Regulated (Potassium Dichromate (CAS 7778-50-9)).

Weight: > 95%; Threshold values: 0.1%

Other federal regulations**Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List**

Regulated (Potassium Dichromate (CAS 7778-50-9)).

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

FEMA Priority Substances Respiratory Health and Safety in the Flavor

Not listed.

US state regulations

US. Massachusetts RTK - Substance List

Listed (Potassium Dichromate (CAS 7778-50-9)).

US. New Jersey Worker and Community Right-to-Know Act

Listed (Potassium Dichromate (CAS 7778-50-9)).

US. Pennsylvania Worker and Community Right-to-Know Law

Listed (Potassium Dichromate (CAS 7778-50-9)).

California Proposition 65

Listed (Potassium Dichromate (CAS 7778-50-9)).

SECTION 16: Other information

Date of Issue: 10/31/2025

SECTION 17: Disclaimer

The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.