

Safety Data Sheet

according to OSHA HCS (29CFR 1910.1200) and WHMIS 2015 Regulations

Revision: February 14, 2020

1 Identification

- **Product identifier**
- **Trade name: Potassium Chromate**
- **Product code:** S25486
- **Recommended use and restriction on use**
- **Recommended use:** Laboratory chemicals
- **Restrictions on use:** No relevant information available.
- **Details of the supplier of the Safety Data Sheet**
- **Manufacturer/Supplier:**
AquaPhoenix Scientific, Inc.
860 Gitts Run Road
Hanover, PA 17331
Phone: (717)632-1291
Toll-Free: (866)632-1291
info@aquaphoenixsci.com
- **Distributor:**
Fisher Science Education
6771 Silver Crest Road,
Nazareth, PA 18064
(800) 955-1177
- **Emergency telephone number:**
ChemTel Inc.
(800)255-3924 (North America)
+1 (813)248-0585 (International)

2 Hazard(s) identification

- **Classification of the substance or mixture**
Acute Tox. 3 H301 Toxic if swallowed.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2A H319 Causes serious eye irritation.
Skin Sens. 1 H317 May cause an allergic skin reaction.
Muta. 1B H340 May cause genetic defects.
Carc. 1B H350 May cause cancer. Route of exposure: Inhalation.
STOT SE 3 H335 May cause respiratory irritation.

· Label elements

· GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

· Hazard pictograms:



GHS06 GHS07 GHS08

- **Signal word:** Danger
- **Hazard statements:**
H301 Toxic if swallowed.

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H315 Causes skin irritation.
 H319 Causes serious eye irritation.
 H317 May cause an allergic skin reaction.
 H340 May cause genetic defects.
 H350 May cause cancer. Route of exposure: Inhalation.
 H335 May cause respiratory irritation.

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.
 P264 Wash thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P271 Use only outdoors or in a well-ventilated area.
 P272 Contaminated work clothing must not be allowed out of the workplace.
 P280 Wear protective gloves/protective clothing/eye protection/face protection.
 P301+P310 If swallowed: Immediately call a poison center/doctor.
 P330 Rinse mouth.
 P302+P352 If on skin: Wash with plenty of soap and water.
 P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308+P313 IF exposed or concerned: Get medical advice/attention.
 P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
 P337+P313 If eye irritation persists: Get medical advice/attention.
 P362+P364 Take off contaminated clothing and wash it before reuse.
 P403+P233 Store in a well-ventilated place. Keep container tightly closed.
 P405 Store locked up.
 P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

Other hazards There are no other hazards not otherwise classified that have been identified.

3 Composition/information on ingredients

Chemical characterization: Substances

Components:

7789-00-6	potassium chromate	100%
	 Acute Tox. 3, H301	
	 Muta. 1B, H340; Carc. 1B, H350	
	 Skin Irrit. 2, H315; Eye Irrit. 2A, H319; Skin Sens. 1, H317; STOT SE 3, H335	

4 First-aid measures

Description of first aid measures

General information: No special measures required.
After inhalation: Supply fresh air; consult doctor in case of complaints.
After skin contact:
 Brush off loose particles from skin.
 Immediately wash with water and soap and rinse thoroughly.

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If skin irritation or rash occurs: Get medical advice/attention.

· **After eye contact:**

Protect unharmed eye.

Remove contact lenses if worn.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

· **After swallowing:**

Rinse out mouth and then drink plenty of water.

Do not induce vomiting; immediately call for medical help.

· **Most important symptoms and effects, both acute and delayed:**

Gastric or intestinal disorders when ingested.

Allergic reactions

Nausea in case of ingestion.

Irritating to eyes, respiratory system and skin.

· **Danger:**

May cause sensitization by skin contact.

Toxic if swallowed.

May cause genetic defects.

May cause cancer. Route of exposure: Inhalation.

· **Indication of any immediate medical attention and special treatment needed:**

Medical supervision for at least 48 hours.

If medical advice is needed, have product container or label at hand.

5 Fire-fighting measures

· **Extinguishing media**

· **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.

· **For safety reasons unsuitable extinguishing agents:** No relevant information available.

· **Special hazards arising from the substance or mixture**

Formation of toxic gases is possible during heating or in case of fire.

May intensify fire; oxidizer.

· **Advice for firefighters**

· **Protective equipment:**

Wear self-contained respiratory protective device.

Wear fully protective suit.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation.

Wear protective clothing.

For large spills, use respiratory protective device against the effects of fumes/dust/aerosol.

· **Environmental precautions**

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Methods and material for containment and cleaning up**

Pick up mechanically.

Send for recovery or disposal in suitable receptacles.

· **Reference to other sections**

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See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:**
 - Prevent formation of dust.
 - Any deposit of dust which cannot be avoided must be regularly removed.
 - Do not dry clean dust covered objects and floors. Wash thoroughly with plenty of water.
 - Use only in well ventilated areas.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:**
 - Store away from foodstuffs.
 - Do not store together with acids.
 - Store away from flammable substances.
- **Further information about storage conditions:**
 - Keep containers tightly sealed.
 - Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No relevant information available.

8 Exposure controls/personal protection

- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**

The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.

7789-00-6 potassium chromate

PEL (USA)	Long-term value: 0.005* mg/m ³ Ceiling limit value: 0.1** mg/m ³ *as Cr(VI) **as CrO ₃ ; see 29 CFR 1910.1026
REL (USA)	Long-term value: 0.0002 mg/m ³ as Cr; See Pocket Guide Apps. A and C
TLV (USA)	Short-term value: 0.0005 mg/m ³ Long-term value: 0.0002 mg/m ³ as Cr; inhalable, Skin; BEI, DSEN, RSEN
EL (Canada)	Long-term value: 0.025 mg/m ³ Ceiling limit value: 0.1 mg/m ³ as Cr; ACGIH A1, IARC 1
LMPE (Mexico)	Long-term value: 0.05 mg/m ³ A1, IBE; como Cr

- **Ingredients with biological limit values:**

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BEI (USA)	25 µg/L Medium: urine Time: end of shift at end of workweek Parameter: Total chromium (fume)
	10 µg/L Medium: urine Time: increase during shift Parameter: Total chromium (fume)

· Exposure controls

· General protective and hygienic measures:

The usual precautionary measures for handling chemicals should be followed.

Keep away from foodstuffs, beverages and feed.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Avoid contact with the eyes and skin.

· Engineering controls: Provide adequate ventilation.

· Breathing equipment:

Not required under normal conditions of use.

Use suitable respiratory protective device when high concentrations are present.

· Protection of hands:



Protective gloves

· Material of gloves

Nitrile rubber, NBR

Neoprene gloves

Butyl rubber, BR

Natural rubber, NR

Sensibilization by the components in the glove materials is possible.

· Penetration time of glove material

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· Eye protection:



Safety glasses

Follow relevant national guidelines concerning the use of protective eyewear.

· Body protection: Protective work clothing

· Limitation and supervision of exposure into the environment

No relevant information available.

9 Physical and chemical properties

· Information on basic physical and chemical properties

· Appearance:

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· Form:	Solid
· Color:	Light yellow
· Odor:	Characteristic
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Melting point/Melting range:	Not determined.
· Boiling point/Boiling range:	Not determined.
· Flash point:	The product is not flammable.
· Flammability (solid, gaseous):	Not applicable.
· Auto-ignition temperature:	Not determined.
· Decomposition temperature:	Not determined.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
· Lower:	Not determined.
· Upper:	Not determined.
· Oxidizing properties:	Oxidizer
· Vapor pressure:	Not determined.
· Density:	
· Relative density:	Not determined.
· Vapor density:	Not determined.
· Evaporation rate:	Not determined.
· Solubility in / Miscibility with Water:	Soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity	
· Dynamic:	Not determined.
· Kinematic:	Not determined.
· Other information	No relevant information available.

10 Stability and reactivity

- **Reactivity:** No relevant information available.
- **Chemical stability:** Stable under normal temperatures and pressures.
- **Thermal decomposition / conditions to be avoided:**
No decomposition if used and stored according to specifications.
- **Possibility of hazardous reactions**
May intensify fire; oxidizer.
Toxic fumes may be released if heated above the decomposition point.
Reacts with strong acids.
Reacts with organic substances.
- **Conditions to avoid**
Direct sunlight.

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Excessive heat.

· **Incompatible materials** No relevant information available.

· **Hazardous decomposition products**

Oxygen

Under fire conditions only:

Toxic metal oxide smoke

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:** Toxic if swallowed.

· **LD/LC50 values that are relevant for classification:**

7789-00-6 potassium chromate

Oral	LD50	180 mg/kg (mouse)
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· **Primary irritant effect:**

· **On the skin:** Irritant to skin and mucous membranes.

· **On the eye:** Causes eye irritation.

· **Sensitization:** Sensitization possible through skin contact.

· **IARC (International Agency for Research on Cancer):**

Substance is not listed.

· **NTP (National Toxicology Program):**

K

· **OSHA-Ca (Occupational Safety & Health Administration):**

Substance is not listed.

· **Probable route(s) of exposure:**

Ingestion.

Inhalation.

Eye contact.

Skin contact.

· **Acute effects (acute toxicity, irritation and corrosivity):**

Toxic if swallowed.

Irritating to eyes, respiratory system and skin.

· **Repeated dose toxicity:**

Danger of very serious irreversible effects.

Repeated exposure may result in skin sensitivity.

· **Germ cell mutagenicity:** May cause genetic defects.

· **Carcinogenicity:** May cause cancer. Route of exposure: Inhalation.

· **Reproductive toxicity:** Based on available data, the classification criteria are not met.

· **STOT-single exposure:** May cause respiratory irritation.

· **STOT-repeated exposure:** Based on available data, the classification criteria are not met.

· **Aspiration hazard:** Based on available data, the classification criteria are not met.

12 Ecological information

· **Toxicity**

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- **Aquatic toxicity** Toxic for aquatic organisms
- **Persistence and degradability** No relevant information available.
- **Bioaccumulative potential:** No relevant information available.
- **Mobility in soil:** No relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Toxic for fish
- **Additional ecological information**
- **General notes:**
Do not allow product to reach ground water, water course or sewage system, even in small quantities.
Also poisonous for fish and plankton in water bodies.
Toxic for aquatic organisms
- **Other adverse effects** No relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
The user of this material has the responsibility to dispose of unused material, residues and containers in compliance with all relevant local, state and federal laws and regulations regarding treatment, storage and disposal for hazardous and nonhazardous wastes.
- **Uncleaned packagings**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- **UN-Number**
- **DOT, ADR/RID/ADN, IMDG, IATA** UN3087
- **UN proper shipping name**
- **DOT** Oxidizing solid, toxic, n.o.s.
- **ADR/RID/ADN** OXIDIZING SOLID, TOXIC, N.O.S., ENVIRONMENTALLY HAZARDOUS
- **IMDG, IATA** OXIDIZING SOLID, TOXIC, N.O.S.
- **Transport hazard class(es)**
- **DOT**
- The image shows two hazard labels side-by-side. On the left is a yellow diamond-shaped label with a flame icon and the word 'OXIDIZER' below it, with '5.1' at the bottom. On the right is a white diamond-shaped label with a skull and crossbones icon and the word 'TOXIC' below it, with '6.1' at the bottom.
- **Class** 5.1
- **Label** 5.1, 6.1

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· **ADR/RID/ADN**



· **Class** 5.1 (OT2)
 · **Label** 5.1+6.1

· **IMDG**



· **Class** 5.1
 · **Label** 5.1/6.1

· **IATA**



· **Class** 5.1
 · **Label** 5.1 (6.1)

· **Packing group**

· **DOT, ADR/RID/ADN, IMDG, IATA** III

· **Environmental hazards**

Not applicable.

· **Special precautions for user**

Warning: Oxidizing substances

· **Hazard identification number (Kemler code):** 56

· **EMS Number:** F-A,S-Q

· **Transport in bulk according to Annex II of**

MARPOL73/78 and the IBC Code

Not applicable.

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

- United States (USA)
- SARA

· **Section 302 (extremely hazardous substances):**

Substance is not listed.

· **Section 313 (Specific toxic chemical listings):**

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· **TSCA (Toxic Substances Control Act)**

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7732-18-5 | Water

· **Proposition 65 (California)**

· **Chemicals known to cause cancer:**

7789-00-6 | potassium chromate

· **Chemicals known to cause developmental toxicity for females:**

7789-00-6 | potassium chromate

· **Chemicals known to cause developmental toxicity for males:**

7789-00-6 | potassium chromate

· **Chemicals known to cause developmental toxicity:**

7789-00-6 | potassium chromate

· **EPA (Environmental Protection Agency):**

A(inh), D(oral), K/L(inh), CBD(oral)

· **IARC (International Agency for Research on Cancer):**

1

· **Canadian Domestic Substances List (DSL):**

Substance is not listed.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

OSHA: Occupational Safety & Health Administration

Acute Tox. 3: Acute toxicity – Category 3

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A

Skin Sens. 1: Skin sensitisation – Category 1

Muta. 1B: Germ cell mutagenicity – Category 1B

Carc. 1B: Carcinogenicity – Category 1B

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

· **Sources**

Website, European Chemicals Agency (echa.europa.eu)

Website, US EPA Substance Registry Services (ofmpub.epa.gov/sor internet/registry/substreg/home/overview/home.do)

Website, Chemical Abstracts Registry, American Chemical Society (www.cas.org)

Patty's Industrial Hygiene, 6th ed., Rose, Vernon, ed. ISBN: 978-0-470-07488-6

Casarett and Doull's Toxicology: The Basic Science of Poisons, 8th Ed., Klaassen, Curtis D., ed., ISBN: 978-0-07-176923-5.

Safety Data Sheets, Individual Manufacturers

SDS Prepared by:

ChemTel Inc.

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