

## CLIP, Chemical Laboratory Information Profile

"Only when you know the hazards, can you take the necessary precautionary measures."

**Potassium Chromate****CAS No.: 7789-00-6**

Synonym: Potassium chromate(VI)

**Physical Properties****Exposure Limits**

Yellow crystalline solid.

Vapor pressure at 20 °C: negligible

Melting point: 975 °C

Decomposes when heated

OSHA PEL: 0.5 µg/m<sup>3</sup>ACGIH TLV: 0.05 mg/m<sup>3</sup>**Hazardous Characteristics**

Overall toxicity	Flammability	Destructive to skin/eye	Absorbed through skin	Sensitizer?	Self-reactive?	Incompatible with:
4	0	3	Yes	Yes	No	Strong oxidizing agents and with flammables, combustibles, organic compounds, many metals, other reducing agents.*

0: None (or very low); 1: Slight; 2: Moderate; 3: High; 4: Severe.

**\*Reactivity Hazards**

Potassium chromate gives off oxygen when heated. It is a very strong oxidizing agent and reacts violently with any substance that can be oxidized, often spontaneously causing fires and explosions. Many mixtures of potassium chromate and finely divided metals (such as Al or Fe) or non-metals (such as C or S) are pyrophoric. Mixtures of potassium chromate with strong oxidizing agents and solutions of potassium chromate in concentrated sulfuric acid or other oxidizing acids are even stronger oxidizing agents than potassium chromate alone. See Bretherick's *Handbook of Reactive Chemical Hazards* for details and for other incompatibilities.

Cited as known to be or reasonably anticipated to be carcinogenic in NTP-9? Yes

Identified as a reproductive toxin in Frazier and Hage, *Reproductive Hazards of the Workplace*? Some evidence suggests "yes".

**Typical symptoms of acute exposures:**

Severe irritation or destruction upon contact with skin or eyes and, if inhaled, coughing, sore throat, lung edema, and perforation of the nasal septum if inhalation is prolonged. If ingested, causes nausea and/or vomiting.

**Principal target organ(s) or system(s):**

Skin, respiratory system, eyes, kidneys, liver, central nervous system.

**Storage Requirements**

Store in a cool, dry, well-ventilated location, away from other strong oxidizing agents and away from flammables, combustibles, and other reducing agents.

**Additional Remarks**

Symptoms of lung edema are not manifest immediately in victims who have inhaled potassium chromate dust particles; some hours may elapse first; physical effort can exaggerate these symptoms. Rest is essential for exposed persons.

**Notes****ReadMe**

This Chemical Laboratory Information Profile is *not* a Material Safety Data Sheet. It is a brief summary for teachers and their students that describes some of the hazards of this chemical as it is typically used in laboratories. On the basis of your knowledge of these hazards and before using or handling this chemical, *you need to select the precautions and first-aid procedures to be followed.* For that information as well as for other useful information, refer to Material Safety Data Sheets, container labels, and references in the scientific literature that pertain to this chemical.

**Reproductive Toxins**

Some substances that in fact are reproductive toxins are not yet recognized as such. For the best readily available and up-to-date information, refer to "DART/ETIC". See the TOXNET home page at [www.sis.nlm.nih.gov](http://www.sis.nlm.nih.gov) and click on "Toxicology search". *Note that some of the data in DART/ETIC have not been peer-reviewed.* See also Linda M. Frazier and Marvin L. Hage, *Reproductive Hazards of the Workplace*; Wiley, 1998; and T. H. Shepard, *Catalog of Teratogenic Agents*, 9th ed.; Johns Hopkins University Press, 1998.

**Abbreviations**

ACGIH TLV—American Conference of Governmental Industrial Hygienists—Threshold Limit Value. C—Ceiling. CAS—Chemical Abstracts Service. mg/m<sup>3</sup>—milligrams per cubic meter. µg/m<sup>3</sup>—micrograms per cubic meter. NA—Not applicable. NE—Not established. NI—No information. NTP-9—National Toxicology Program, Ninth Annual Report on Carcinogens. OSHA PEL—Occupational Safety and Health Administration—Permissible Exposure Limit. ppm—parts per million. STEL/C—Short-term exposure limit and ceiling.

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