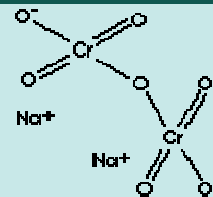


SODIUM DICHROMATE

PRODUCT IDENTIFICATION

CAS NO.	10588-01-9 (Anhydrous) 7789-12-0 (Dihydrate)
EINECS NO.	234-190-3
FORMULA	$\text{Na}_2 \text{Cr}_2\text{O}_7 \cdot 2\text{H}_2\text{O}$
MOL WT.	297.98
H.S. CODE	2841.30
TOXICITY	Oral rat LD50: 50 mg/kg
SYNONYMS	Dichromic Acid, Disodium Salt, Dihydrate; 重铬酸钠;



Sodium Dichromate Dihydrate; Disodium Dichromate Dihydrate; Sodium Dichromate; Natriumdichromat (German); Dicromato de sodio (Spanish); Dichromate de sodium (French);

DERIVATION

CLASSIFICATION

PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE	Odorless Orange to Red crystals or granules
MELTING POINT	357 C
BOILING POINT	400 C
SPECIFIC GRAVITY	2.35
SOLUBILITY IN WATER	Highly soluble (74.0% at 25°C)
pH	3.0 - 4.6 upon concentration
VAPOR DENSITY	10
REFRACTIVE INDEX	
NFPA RATINGS	Health: 4; Flammability: 0; Reactivity: 2; Special Hazard: OX
AUTOIGNITION	
FLASH POINT	400 C
STABILITY	Stable under ordinary conditions

GENERAL DESCRIPTION & APPLICATIONS

Chromium (symbol Cr and atomic number 24) occurs in the oxidation states 0, +2, +3, and +6 states. Element (0) and divalent chromium, however, are unstable. Chromium (0) immediately produce a thin oxide layer. Divalent chromium is easily oxidized to the trivalent form in air. The trivalent and hexavalent oxidation states are important in industry, which exit in their divalent anions called chromate and dichromate respectively and an chromic anhydride form called chromium trioxide (CrO_3) and chromic oxide (Cr_2O_3). In industrial, chromium trioxide is called chromic acid. The principal uses of chromium are in the metallurgical processing of ferrochromium and other metallurgical products to impart corrosion resistance, chiefly stainless steel. There are applications in chrome plating, anodizing aluminium, and refractory processing of chrome brick. When combined with oxygen together other metallic elements such as lead and potassium, it forms various inorganic pigments. Chromium is used in chemical processing to produce chromic acid and chromates. Chromates are strong oxidants which will produce many organic and inorganic materials and used in the purification of chemicals. Chromates are used as rust and corrosion inhibitors in diesel engines. Dichromate is converted to chromic sulfate for tanning of leather. Chromates and dichromates are used as pigments in paints and in dyeing. Chrome colors include black, red, orange, green, and yellow. Chromate salts contain the chromate ion, CrO_4^{2-} , and have an intense yellow color. Dichromate salts contain the dichromate ion, $\text{Cr}_2\text{O}_7^{2-}$, and have an intense orange color. Chromates are used as mordant in dyeing cloth.

Potassium dichromate, also called red potassium chromate, is a bright yellowish-red crystals melting point at 396 C, decomposes at 500 C. Sodium dichromate is a red to orange deliquescent crystals melts at 320C. Sodium dichromate undergoes hydration when heated at 105C. They are soluble in water, insoluble in alcohol. Sodium and potassium dichromates are widely used as sources of other chromium compounds including chromic acid. Dichromates are power oxidizing agents which find applications in:

- Chromium source in preparing chromium compounds
- Leather tanning and screen printing
- Electroplating
- Pyrotechnics and explosives
- Pigment preparation
- Wood Preservative
- Metal Treating and corrosion inhibitor
- Oil drilling
- Catalyst for the chromium metal production
- Photographic engraving

In biological field, potassium dichromate is used as a fixative for used for conservation of tissue sections.

SALES SPECIFICATION

APPEARANCE	Odorless orange crystal grain
$\text{Na}_2\text{Cr}_2\text{O}_7 \cdot 2\text{H}_2\text{O}$	98.0% min
SULPHATES	0.4% max
CHLORIDES	0.2% max

TRANSPORTATION

PACKING	25kgs in Bag , 20mts in Container
HAZARD CLASS	5.1 (Packing Group: III)
UN NO.	3288

OTHER INFORMATION

Hazard Symbols: T+ N, Risk Phrases: 49-46-21-25-26-37/38-41-43-50/53, Safety Phrases: 53-45-60-61