>>**Entry Name: Sodium chromate(*VI*) (Na_2CrO_4)**
Synonym(s): Disodium chromate. Chromitope sodium. Rachromate

CAS Registry Number: 7775-11-3
Related CAS Registry Numbers(s): 10039-53-9

Na_2CrO_4

Molecular Formula: $CrNa_2O_4$
Molecular Weight: 161.973
Accurate Mass: 161.899703
Percentage Composition: Cr 32.10%; Na 28.39%; O 39.51%

Source/Synthesis: Manuf. from $Na_2Cr_2O_7$ and NaOH
Use/Importance: Commercially available. Used as oxidant, corrosion inhibitor, in wood preservation. ^{51}Cr labelled compd. used as radioactive agent (*Sodium chromate Cr 51*, USAN)
Physical Description: Yellow cryst.
Melting Point: Mp 780°. Mp 792°
Solubility: Sol. H_2O; fairly insol. MeOH, EtOH
Other Data: Isomorphous with Na_2SO_4. Weakly paramagnetic. Transition temp. 413°. ΔH_f° (per Na_2CrO_4) –1341 kJ mol^{-1}
Hazard & Toxicity: Cr^{VI} compounds are human carcinogens (IARC Group 1) MEL: long-term 0.05 mg m^{-3} (as Cr). Occup. exposure associated with `chrome ulcer' (skin ulcerations). Mutagenic props.

Aldrich: 30783-1
Fluka: 71400

>>**Derivative:** Tetrahydrate

CAS Registry Number: 10034-82-9
Molecular Formula: $CrH_8Na_2O_8$
Molecular Weight: 234.034
Accurate Mass: 233.941963
Percentage Composition: Cr 22.22%; H 3.45%; Na 19.65%; O 54.69%
Source/Synthesis: Formed when temp. is kept above 26°
Physical Description: Stable yellow monoclinic needles
Melting Point: Mp 62.8°
Other Data: Loses H_2O at 63°. Stable in contact with its soln. only >26° and below 62.8°

Aldrich: 21662-3

>>**Derivative:** Hexahydrate

Molecular Formula: $CrH_{12}Na_2O_{10}$
Molecular Weight: 270.064
Accurate Mass: 269.963093
Percentage Composition: Cr 19.25%; H 4.48%; Na 17.03%; O 59.24%
Physical Description: Yellow triclinic cryst.
Other Data: Loses H_2O at 25.9° to form tetrahydrate

>>**Derivative:** Decahydrate

CAS Registry Number: 13517-17-4
Molecular Formula: $CrH_{20}Na_2O_{14}$
Molecular Weight: 342.125
Accurate Mass: 342.005353
Percentage Composition: Cr 15.20%; H 5.89%; Na 13.44%; O 65.47%
Physical Description: Deliquescent yellow monoclinic cryst. (H_2O)
Other Data: Loses H_2O at 19.5° to form hexahydrate and at 20° to form tetrahydrate

References: