



>>Entry Name: Chromium(VI) chloride oxide (CrCl₂O₂)

Synonym(s): Chromium dichloride dioxide. Chromyl chloride. Dichlorodioxochromium(VI)

CAS Registry Number: 14977-61-8

Extra CAS Registry Numbers(s): 7791-14-2

CrO₂Cl₂

Molecular Formula: Cl₂CrO₂

Molecular Weight: 154.9

Accurate Mass: 153.868043

Percentage Composition: Cl 45.77%; Cr 33.57%; O 20.66%

General Statement: Molecular

Source/Synthesis: Synth. from Na₂Cr₂O₇ + HCl; NaCl + H₂SO₄ + alkali metalchromate; or by chlorination of CrO₃

Use/Importance: Oxidant, chlorinating agent. Used in Etard reaction for oxidation of methyl to aldehyde radicals. Used to separate sulfides from hydrocarbons; undergoes subst. with e.g. LiOR

Physical Description: Dark red liq.; yellow-red vapour. Readily hydrol. to HCl + CrO₃. Fumes in air

Melting Point: Mp -96.5°

Boiling Point: Bp 115.8° ,117°

Solubility: Sol. org. solvs., inorganic acid halides

Other Data: Dec. by light + impurities. Dissolves Cl₂, becoming almost solid

Aldrich: 36274-3

References:

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