



>>Entry Name: *O*-Ethyl dithiocarbonate, 8Cl

Synonym(s): *O*-Ethyl carbonodithioate, 9Cl. Ethylxanthic acid. Ethylxanthogenic acid

CAS Registry Number: 151-01-9

Related CAS Registry Numbers(s): 140-90-9

EtOC(S)SH

Molecular Formula: C₃H₆OS₂

Molecular Weight: 122.212

Accurate Mass: 121.986005

Percentage Composition: C 29.48%; H 4.95%; O 13.09%; S 52.48%

Use/Importance: Used in ore flotation

Physical Description: Unstable, oily liq.

Melting Point: Fp *ca.* -53°

pKa Value: pK_a 2.56

Other Data: Dec. at 25° to CS₂ and EtOH

>>Derivative: K salt

Synonym(s): Ethyl potassium xanthate

CAS Registry Number: 140-89-6

Molecular Formula: C₃H₅KOS₂

Molecular Weight: 160.302

Accurate Mass: 159.941887

Percentage Composition: C 22.48%; H 3.14%; K 24.39%; O 9.98%; S 40.01%

Use/Importance: Commercially available. Used as a soil fumigant and for extraction-separation of heavy metals (Sb, Bi, Cu, Hg, Zn, Cd); photometric detn. of Mo; also in flotation of ores. Cyclocondensation reagent

Physical Description: Pale yellow monoclinic cryst. (Me₂CO/petrol)

Melting Point: Mp 210 dec.°

Solubility: Sol. H₂O, EtOH; prac. insol. Et₂O

Other Data: Dec. by boiling H₂O or heat

Hazard & Toxicity: LD₅₀ (rat, orl) 1700 mg/kg

>>Derivative: NH₄ salt

CAS Registry Number: 19779-49-8

Molecular Formula: C₃H₉NOS₂

Molecular Weight: 139.242

Accurate Mass: 139.012554

Percentage Composition: C 25.88%; H 6.51%; N 10.06%; O 11.49%; S 46.06%

Physical Description: Unstable powder

>>Derivative: *S*-Me ester

Synonym(s): *S*-Methyl ethylxanthate

CAS Registry Number: 623-54-1

Molecular Formula: C₄H₈OS₂

Molecular Weight: 136.239

Accurate Mass: 136.001655

Percentage Composition: C 35.26%; H 5.92%; O 11.74%; S 47.07%

Physical Description: Pale yellow oil

Boiling Point: Bp 182-183°. Bp₂₀ 70°

Solubility: Sol. EtOH, Et₂O; insol. H₂O

>>Derivative: *S*-Et ester

Synonym(s): *S*-Ethyl ethylxanthate

CAS Registry Number: 623-79-0

Molecular Formula: C₅H₁₀OS₂

Molecular Weight: 150.265

Accurate Mass: 150.017305

Percentage Composition: C 39.97%; H 6.71%; O 10.65%; S 42.68%

Physical Description: Liq.

Boiling Point: Bp₁₈ 78°. Bp₉ 72-73°