>>**Acetone**

ENTRY UNDER REVIEW

2-Propanone, 9CI. Dimethyl ketone. FEMA 3326

DFS24-J

[67-64-1]

Classification:PG5250 PS7600 VA0250 WC4800 PG5100

H_3CCOCH_3

C_3H_6O M 58.08. 58.041865. C 62.04%; H 10.41%; O 27.55%

A common constit. of plant tissues, e.g. *Ribes nigrum* volatiles. Produced industrially mainly by oxidation of Isopropylbenzene HFN88-Y. Widely used solvent. Major industrial intermed. used in manuf. of other solvs., methacrylates and 2,2'-Bis(4-hydroxyphenyl)propane DZN19-W. Forms acetonides with diols and Schiff bases with amines for gc or ms anal. Important industrial chemical, 41st in order of volume for USA in 1994 (production 1.39 million tons/year). Volatile liq.. Misc. H_2O, org. solvs.. d_{25}^{25} 0.79. Mp –94°. Bp 56.2°. n_D^{20} 1.3588. Crit. temp. 246.1°.

♦Highly flammable, fl. p. –19°, autoignition temp. 538°. Reacts vigorously with $CHCl_3$ in presence of base. Liquid is severe eye irritant and defats skin. High vapour conc. irritate respiratory tract. Inhalation of vapour initially causes excitement followed by CNS depression with headache, restlessness and fatigue. Coma may result. Exp. reprod. effects by inhalation. OES: long-term 750 ppm; short-term 1500 ppm. AL3150000.

Supplier: Aldrich:32396-9. Fluka:585. Sigma:A4206. Supelco:R80-1000

>>*Oxime*: Acetoxime. BZT64-O [127-06-0] Classification:PM6860 PA3350 PS8300. C_3H_7NO M 73.094. 73.052764. C 49.30%; H 9.65%; N 19.16%; O 21.89%. Used for photometric detn. of Pt(*II*). Cryst. (EtOH). Sol. H_2O, EtOH, Et_2O, Me_2CO. Mp 61°. Bp 134-135°. pK_a 12.42 (25°).

♦AL6825000.

Supplier: Aldrich:A1050-7. Fluka:750. Sigma:A2125

>>*O*-(Benzyloxycarbonyl)oxime: HOD47-Y [137160-76-0] $C_{11}H_{13}NO_3$ M 207.229. 207.089544. C 63.76%; H 6.32%; N 6.76%; O 23.16%. Cryst. (hexane). Mp 46-48°

>>*Phenylhydrazone*: MCC76-Y [103-02-6] $C_9H_{12}N_2$ M 148.207. 148.100048. C 72.94%; H 8.16%; N 18.90%. Liq.. d_4^{20}1.012. Bp_{10} 128°

>>*2,4-Dinitrophenylhydrazone*: DHJ64-Q [1567-89-1] Classification:PM6740 PS7850. $C_9H_{10}N_4O_4$ M 238.202. 238.070206. C 45.38%; H 4.23%; N 23.52%; O 26.87%. Used as 0.05% EtOH soln. as acid-base indicator (pH range: 11.6-12.6; colour change: pale yellow → red). Yellow needles (EtOH). Sol. H_2O, EtOH, Et_2O. Mp 128°.

Supplier: Aldrich:42958-9. Rare Chemicals Library:S84251-6. Supelco:44-2436

>>*Semicarbazone*: DFR92-X [110-20-3] Needles (H_2O or Me_2CO). Mp 190-191 dec.°.

Supplier: Rare Chemicals Library:S44978-4

>>*Thiosemicarbazone*: 2-(1-Methylethylidene)hydrazinecarbothioamide, 9CI. KNW44-M [1752-30-3] Classification:PS8300 PA2350 PM7120 PS7700. $C_4H_9N_3S$ M 131.201. 131.051717. C 36.62%; H 6.91%; N 32.03%; S 24.44%. Used as 2.5% soln. in Me_2CO aq. for extraction-photometric detn. of Mo (λ_{max} 472 nm, ε 19000, $CHCl_3$). Yellow cryst.. Sol. Me_2CO. Mp 175-178°.

♦AL7350000.

Supplier: Rare Chemicals Library:S44230-5