

(8) 2,2 - Diphenyl-2-hydroxyacetic acid,  $C_{14}H_{12}O_3$   
CAS No. 76-93-7  
HS No. 29.18.19.90  
NIOSH/RTECS No. DD 2064000  
Merck 1089

**Synonyms:** Benzilic acid,  $\alpha$ -phenyl- $\alpha$ -hydroxy benzenecetic acid, diphenylglycollic acid, 2-hydroxy-2-2-diphenylethanoic acid

**Physical Characteristics:** MW: 228, mp: 151-2°, pk<sub>a</sub> 3.04 (25°), soluble in hot water.

**Synthesis:** Prepared in high yield by the oxidation of benzoin, ( $C_6H_5CHOHCOC_6H_5$ ) which is obtained by the self-condensation of benzaldehyde ( $C_6H_5CHO$ ) catalyzed by the cyanide ion (Collected Organic Synthesis, Vol. 1, p. 94, 2nd Edition, John Wiley and Sons, N.Y., 1964), and also by the action of KOH on benzil, Organic Synthesis 1, 29 (1921).

**Toxicology:** No detailed information available.

**Uses:** Organic Synthesis, pharmaceutical industry and preparation of tranquilizers.

**Suppliers:** A review of the chemical supplier's literature produced seven manufacturers worldwide: USA (1), India (1), Japan (2), Italy (1) and Spain (2).

**Literature Survey:** Examination of Chemical Abstracts from 1986 till May 1992 produced 125 references, and these involve 20 countries.  
(Annex 1).