

## TECHNICAL INFORMATION

Catalog Number: 195199, 198595

### Glutaraldehyde

#### Structure:



**Molecular Formula:** C<sub>5</sub>H<sub>8</sub>O<sub>2</sub>

**Molecular Weight:** 100.1

**CAS #** 111-30-8

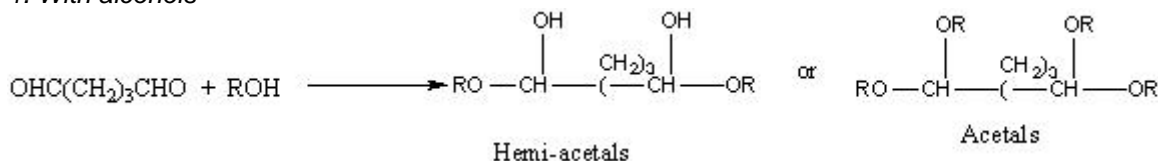
**Synonym:** Pentane-1,5-dial

**Physical Description:** Clear, colorless liquid. Solution in water.

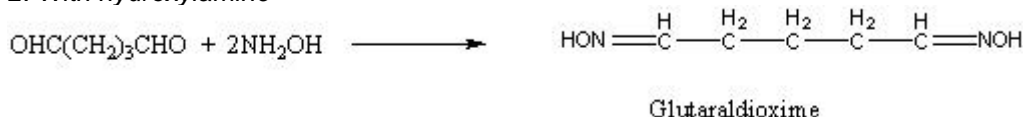
**Description:** Protein cross-linking agent<sup>1,2</sup>. Also possesses sporicidal activity<sup>3</sup>. This product is also suitable for use as an electron microscopy fixative<sup>4</sup>.

Glutaraldehyde reacts through cross-linking to impart water resistance to protein and polyhydroxy compounds. It is also a reducing agent for photochemicals. In organic syntheses, the reactive carbonyl groups of glutaraldehyde suggest its use as an intermediate for the production of resins, dyestuffs, and pharmaceuticals. Typical reactions would be:

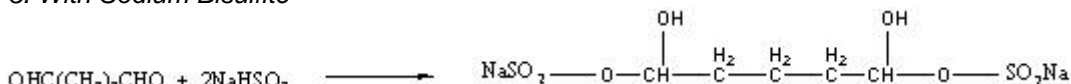
#### 1. With alcohols



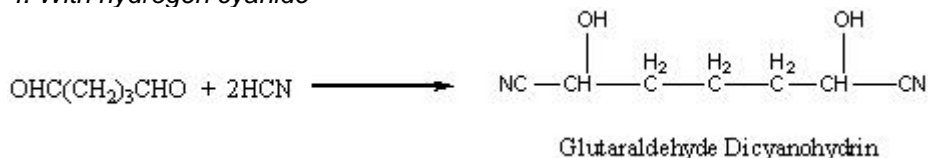
#### 2. With hydroxylamine



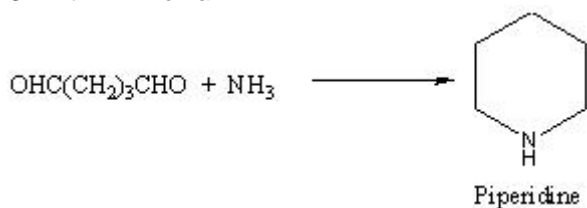
#### 3. With Sodium Bisulfite



#### 4. With hydrogen cyanide



#### 5. With Ammonia



### Typical Properties

	25% Aqueous Solution	50% Aqueous Solution
Specific Gravity at 25°C	1.062 g/ml	1.124 g/ml
Vapor Pressure at 20°C	17 mm Hg	17 mm Hg
Freezing Point	-7.0°C	-14.0°C

Viscosity at 0°C	8.4 cps	105.0 cps
Viscosity at 20°C	3.4 cps	22.1 cps
Viscosity at 40°C	1.7 cps	5.7 cps
Surface Tension at 20°C	35.2 dynes/cm	--

**Availability:**

Catalog Number	Description	Size
195199	Glutaraldehyde, 25% Aqueous Solution	10 ml 100 ml
198595	Glutaraldehyde, 50% Aqueous Solution	10 ml 100 ml

**References:**

- *J. Mol. Biol.*, v. **65**, 525 (1972).
- *Biochim. Biophys. Acta*, v. **370**, 477 (1974).
- *Appl. Microbiol.*, v. **28**, 331 (1974)
- *Histochemie*, v. **30**, 162 (1972).