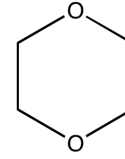


**1,4-Dioxane**, 99,5%, anhydrous (max. 0,005% H<sub>2</sub>O), stabilized with 2,5 ppm of 2,6-Di-tert-butyl-4-methylphenol (BHT)

**Identification**

C<sub>4</sub>H<sub>8</sub>O<sub>2</sub>  
M = 88,11 g/mol  
CAS [123-91-1]  
EC number: 204-661-8  
Taric code: 2932 99 00


**Synonyms**

Glycolethylether, 1,4-Diethylene dioxide, 1,4-Dioxacyclohexane

**Applications**

solvents, analytical chemistry.

**Specifications**

assay (G.C.).....	min. 99,5 %	iron (Fe).....	max. 0,1 ppm
identity (IR-spectrum).....	passes test	lead (Pb).....	max. 0,1 ppm
density (20°/20°).....	1,034 - 1,036	magnesium (Mg).....	max. 0,1 ppm
colour (Hazen).....	max. 10	manganese (Mn).....	max. 0,02 ppm
acidity.....	max. 0,0008 meq/g	nickel (Ni).....	max. 0,02 ppm
melting point.....	min. 11,0 °C	tin (Sn).....	max. 0,1 ppm
aluminium (Al).....	max. 0,5 ppm	zinc (Zn).....	max. 0,1 ppm
barium (Ba).....	max. 0,1 ppm	acetaldehyde (G.C.).....	max. 0,005 %
boron (B).....	max. 0,02 ppm	formaldehyde (G.C.).....	max. 0,05 %
cadmium (Cd).....	max. 0,05 ppm	peroxides (as H <sub>2</sub> O <sub>2</sub> ).....	max. 0,005 %
calcium (Ca).....	max. 0,5 ppm	carbonyl compounds (as HCHO).....	max. 0,01 %
chromium (Cr).....	max. 0,02 ppm	residue on evaporation.....	max. 0,0005 %
cobalt (Co).....	max. 0,02 ppm	water (K.F.).....	max. 0,005 %
copper (Cu).....	max. 0,02 ppm		

**Physical data**

- Density: 1,03 g/cm<sup>3</sup>
- Solub. in water: (20 °C): miscible
- Melting point: 12 °C
- Boiling point: 101,5 °C
- Flash point: 11 °C
- Ignition temperature: 300 °C
- Vapour pressure: (20 °C) 41 hPa
- Viscosity: (25 °C) 1,2 mPas
- Dipolar moment: (20 °C) 0,4 Debye
- Dielectric const.: (25 °C) 2,2
- Evap. heat: (101 °C) 413 KJ/kg
- Saturation conc.: (20 °C) 149 g/m<sup>3</sup>
- Expl. limit (upper): 25,2 Vol%
- Expl. limit (lower): 1,7 Vol%
- pH(500 g/l H<sub>2</sub>O, 20 °C) 6 - 8

**Safety - GHS**

**Signal Word:** Danger

**Hazard Statements:**

- H225: Highly flammable liquid and vapour.  
H351: Suspected of causing cancer.  
H319: Causes serious eye irritation.  
H335: May cause respiratory irritation.  
EUH019: May form explosive peroxides.  
EUH066: Repeated exposure may cause skin dryness or cracking.


**Precautionary Statements:**

- P210: Keep away from heat / sparks / open flames / hot surfaces. - No smoking.  
P241: Use explosion-proof electrical / ventilating / lighting / equipment.  
P303+P361+P353: IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower.  
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P405: Store locked up.  
P501a: Dispose of contents / container in accordance with local / regional / national / international regulations.

**1,4-Dioxane**, 99,5%, anhydrous (max. 0,005% H<sub>2</sub>O), stabilized with 2,5 ppm of 2,6-Di-tert-butyl-4-methylphenol (BHT)

#### Toxicological data

- LD 50 (oral, rat): 5200 mg/kg
- MAK: 20 ml/m<sup>3</sup>, 73 mg/m<sup>3</sup>
- WGK: 2
- Poison class CH (Swiss): 4

#### Transport/storage

- ADR: 3 F1 II • UN 1165 • DIOXANE
- IMDG: 3 II • UN 1165 • DIOXANE
- IATA/ICAO: 3 II • UN 1165 • DIOXANE
- PAX: 305
- CAO: 307
- Store between 15°C and 25°C