

2-Ethylhexanol

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Technical Data Sheet

February 2007a

BASF
The Chemical Company

Formula C₈H₁₈O
Molecular Weight 130.2
PRD Number 30034817
CAS Registry Numbers 104-76-7

Product Specifications	Value	Test Method
Assay, wt. %, min.	99.5	GC
Water, wt. %, max.	0.05	ASTM D-1364
Color, Pt-Co Units, max.	10	ASTM D-5386

Description

2-Ethylhexanol is a clear, colorless, mobile and neutral liquid with a characteristic odor. It is miscible with all common solvents but is only sparingly soluble in water.

Packaging

Available only in bulk.

Typical and Physical Properties	
Distillation range, °C, 1 atm	183 - 185
Specific gravity @ 20/20 °C	0.833 – 0.834
Acidity as acetic acid, wt. %, max.	0.01
Appearance	Clear and colorless

Safety

2-Ethylhexanol may irritate the skin and eyes. Inhalation of vapors or mists may irritate the respiratory tract.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on safety.

Storage and Handling

Anhydrous 2-ethylhexanol does not attack common metals.

Tanks constructed from normal carbon steel are reliable for storing 2-ethylhexanol. If sever demands are imposed on the quality of the product, the tanks should be constructed of stainless steel or aluminum.

Moisture in the atmosphere must be excluded by storing the product under a blanket of inert gas or by installing a dehumidifier.

Drums containing the product should be kept tightly closed in a well-ventilated place.

Always refer to the Material Safety Data Sheet (MSDS) for detailed information on handling and disposal.

Applications

The main application for 2-ethylhexanol is as a feedstock for low-volatility esters such as the plasticizer di-(2-ethylhexyl) phthalate (DEHP or DOP) and 2-ethylhexyl acrylate.

The applications in which 2-ethylhexanol can be used are as follows:

- Other plasticizer esters from adipic acid, para-hydroxybenzoic acid, sebacic acid, azelaic acid, trimellitic anhydride, stearic acid, terephthalic acid, phosphoric acid
- Lubricants made with 2-ethylhexanol and dicarboxylic acids and glycols or polyglycols
- Low volatility solvent for resins, waxes, vegetable oils, and petroleum derivatives
- Low volatility ingredient in solvent blends for the dyestuffs and coatings industries
- Flow and gloss improver in baking finishes
- Additive in dispersing and wetting agents for pigment pastes
- Low volatility solvent in disinfectants and insecticidal sprays
- Feedstock for ethoxylates
- Feedstock in the manufacture of herbicides such as the 2-ethylhexyl ester of 2,4-dichlorophenoxyacetic acid and 2,4,5-trichlorophenoxyacetic acid
- Feedstock in the manufacture of extractants for heavy metals
- Production of di-(2-ethylhexyl) maleate
- Feedstock for 2-ethylhexyl sulfate, used as a surfactant for electrolytes
- Production of 2-ethylhexyl esters of trialkyl phosphite, used as thermal stabilizers and antioxidants in plastics
- Production of Ba, Cd, and Zn salts of 2-ethylhexanoic acid (used as PVC stabilizers)
- In antifoams for almost all aqueous systems such as those used in the textile and paper industries. In this application, very low amounts of 2-ethylhexanol are required (e.g., 0.1%); higher amounts must be avoided since this may cause recurrence of foaming.

Contact

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