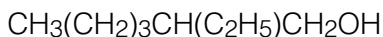


2-Ethylhexanol

Technical Data Sheet

March 1998

Formula:..... $C_8H_{18}O$
Molecular Weight 130.2
Product Number 526121
CAS Registry Number:.... 104-76-7



Product Specifications	Value	Test Method
Assay, wt. % minimum	99.5	G.C.
Water, wt. % maximum	0.05	ASTM D1364
Acidity, as acetic acid, % maximum	0.01	ASTM D1613
Color, Pt-Co units, maximum	10	ASTM D1209

Physical Properties

Specific Gravity @ 20/20°C	0.833 – 0.834
Distillation Range @ 760 mm Hg, °C	183 – 185
Appearance	clear and colorless

Description

2-Ethylhexanol is a clear, colorless, mobile and neutral liquid with a characteristic odor. It is miscible with most common organic solvents, but its miscibility with water is very limited.

It enters into the reactions that are typical for primary alcohols. For instance, it readily forms esters with various acids.

Safety

2-Ethylhexanol may irritate the skin and eyes. Inhalation may irritate the respiratory tract.

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

Applications

Its main application is as a feedstock in the manufacture of low-volatility esters, the most important of which is di-(2-ethylhexyl) phthalate (DOP or DEHP).

Other plasticizers that can be obtained from 2-Ethylhexanol are the corresponding ester of:

- adipic acid
- para-hydroxybenzoic acid

- sebacic acid
- azelaic acid
- trimellitic acid
- stearic acid
- terephthalic acid
- phosphoric acid, etc.

Lubricants which are obtained in reactions between 2-ethylhexanol, dicarboxylic acids and glycols or polyglycols and which contain various additives, e.g. polyacrylates of 2-ethylhexanol.

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

- low-volatility solvent, e.g., for resins, waxes animal fats, vegetable oils and petroleum derivatives
- low-volatility ingredient in solvent blends for the dyestuffs and coatings industries, e.g., in printing and stamp pad inks, dipping lacquers, etc.
- flow and gloss improver in baking finishes
- additive in dispersing and wetting agents for pigment pastes
- low-volatility solvent in some disinfectants and insecticidal sprays
- feedstock for the manufacture of ethoxylates

- feedstock in the manufacture of herbicides, e.g., 2-ethylhexyl esters of 2,4-dichlorophenoxyacetic and 2,4,5-trichlorophenoxyacetic acid
- feedstock in the manufacture of extractants, e.g., for heavy metals
- in the production of the diester of maleic acid, which is used as starting material for surfactants
- feedstock for the manufacture of 2-ethylhexyl sulphate, which is used as a surfactant for electrolytes
- in the production of the 2-ethylhexyl esters of trialkyl phosphite, which can serve as thermal stabilizers and antioxidants in plastics
- in the production of 2-ethylhexanoic acid, the barium, cadmium and zinc salts of which are used as PVC stabilizers
- In antifoams for almost all aqueous systems, e.g., those in the textile and paper industries. In this application, very low proportions of 2-ethylhexanol, viz. 0.1%, are required, and higher proportions must be avoided, because they may be responsible for the reoccurrence of pronounced foaming [2].

Packaging

Available in bulk quantities only.

(continued on reverse side)

Storage & Handling

Anhydrous 2-ethylhexanol does not attack common metals.

Tanks constructed from normal steel are reliable for storing 2-ethylhexanol. If severe 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 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.

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