



## Product Data Sheet

### Digylme (CAS: 111-96-6)

Diethylene Glycol Dimethyl Ether ( $\text{CH}_3\text{-O-(CH}_2\text{CH}_2\text{-P)}_2\text{-CH}_3$ )

#### A polar aprotic glycol diether with active solvency and formulating versatility

Digylme is unique among ethylene oxide based solvents in that it is aprotic (no hydroxyl functionality). As a result it is a relatively inert solvent with outstanding stability at high pH. Digylme acts as a chelate ligand for cations. The 162°C boiling point allows for easy separation from reaction mixtures and recovery. Used as a solvent for Organometallic reactions involving reductions, alkylations, Grignard and in reactions involving alkali metals.

## Physical Properties

Empirical Formula		$\text{C}_6\text{H}_{14}\text{O}_3$
Molecular Weight		134.17
Boiling Point	(°C 760 mm Hg)	162
Freezing Point	(°C)	-64
Specific Gravity	(20/20°C)	0.9451
Vapor Pressure	(mm Hg/20°C)	2
Volatility	(n-butylacetate = 100)	36
Viscosity	(cp 20°C)	2.0
Surface Tension	(dynes/cm 20°C)	27
Specific Heat	(cal/gm/°C)	0.403
Auto Ignition temp	(°C)	190
Heat of Vaporization	(K cal/mole)	10.0
Heat of Combustion	(K cal/mole)	902
Heat of Formation	(K cal/mole)	143
Flash Point	(°C, closed cup)	57
Refractive Index	(20°C)	1.4078
Appearance		Clear, Colorless
Odor		Ethereal non-residual
Solubility at 25°C		
in water		complete
water in		complete

## Process solvent

- i For etching of Teflon and Fluoropolymers with alkali metal dispersions
- i For extractive ternary distillations
- i Solvent vehicle for intermediate and pharmaceutical syntheses
- i For printing inks
- i Polyamide resins solvent in adhesives and coatings

## Reaction Solvent

- i For alkali metal catalyzed PCB destruction
- i For Grignard reagent preparation
- i For the manufacture of protease inhibitors (anti-AIDS drugs)
- i For anti-Markinokov hydroboration-oxidation reactions
- i Activator for metal borohydrides
- i For selective reduction of acid chlorides to aldehydes

## Features

- i Aprotic
- i Water soluble
- i High solvency characteristics
- i Powerful diluent
- i Excellent thermal and chemical stability
- i Low toxicity relative to its corresponding glycol mono-ether
- i Powerful solvent for nucleophilic substitutions

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