



### Product Data Sheet

## Glycerol Formal (CAS# 68442-91-1)

Glycerol formal is a mixture of 5-hydroxy-1,3-dioxane and 4-hydroxymethyl-1,3-dioxolane (approximately 60/40)

### A solvent within the acetal family with active solvency and formulating versatility

Glycerol Formal is unique among acetal solvents in that it is a high boiling mixture of two isomers. It is thermally stable and stable to mild acid-base conditions. Glycerol Formal provides an environmentally-friendly alternative to standard solvents. Its water solubility, high solvency, and slow evaporation rate make it ideal for the formulation of stable inks and agricultural chemicals.

## Physical Properties

Empirical Formula		C <sub>4</sub> H <sub>8</sub> O <sub>3</sub>
Molecular Weight		104.10
Boiling Point	( °C 760 mm Hg)	191-195
Freezing Point	( °C)	N/A
Specific Gravity	(20°C)	1.203
Vapor Pressure	(mm Hg/ 20°C)	<0.1
Volatility	(n-butylacetate = 100)	<0.1
Viscosity	(cp 20°C)	N/A
Surface Tension	(mM/m 25°C)	44
Specific Heat	(cal/gm°C)	N/A
Auto Ignition temp	( °C)	>380
Heat of Vaporization	(K cal/mole)	N/A
Heat of Combustion	(K Cal/mole)	N/A
Heat of Formation	(K cal/mole)	N/A
Flash Point	(°C, closed cup)	98
Refractive Index	(20°C)	1.451
Appearance		Clear, Colorless
Odor		Mild
Solubility in water		Complete
Solubility of water in GF		Complete

## Agricultural Formulations

- Adjuvant for herbicides and pesticides
- Strong emulsifier
- Bio-based

## Process solvent

- For coatings applications
- Bio-based cleaners

## Inks- strong solvency

## Features

- Acetal
- High boiling point
- Water soluble
- Non-HAP/Low VOC
- High solvency characteristics
- Powerful diluent
- High Flash point
- Excellent thermal and chemical stability

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