



## Technical Data Sheet

### DOWANOL™ TPnB

#### Synonyms

Tripropylene glycol n-butyl ether.

#### Sustainability Attribute:

#### Chemical Formula

$C_4H_9O[C_3H_6O]_2CH_2CHOHCH_3$



#### Product Description

DOWANOL™ TPnB glycol ether is a very slow-evaporating, hydrophobic glycol ether with outstanding surface tension-lowering ability; ideal where high polymer solvency and residence time are required. DOWANOL™ TPnB is the slowest-evaporating member of the family of DOWANOL™ glycol ethers. DOWANOL™ TPnB is a high boiling, colorless solvent with low viscosity and practically no odor. Due to its length and hydrophobic structure, DOWANOL™ TPnB has a high organic solubility, low water solubility, and a high boiling point.

#### Applications

- Excellent solvent for heavy duty cleaners.
- Possible additive for floor wax strippers.
- Plasticizer in selected resin systems.
- Coalescent for water-borne architectural and industrial coatings.
- Coupling agent and grease penetrant in oven cleaners.
- Solvent for inks in ball point and felt tip pens, stamp pads, and textile printing pastes.
- Grout formulations in construction.

#### Typical Physical Properties

Property	Unit	Value
Molecular weight	g/mol	248.4
Boiling point @ 760 mmHg, 1.01 ar	°C (°F)	275 (527)
Flash point (Setaflash Closed Cup)	°C (°F)	126 (259)
Freezing point	°C (°F)	< -75 (< -103)
Vapor pressure @ 20°C — extrapolated	mmHg	< 0.01
	Pa	0.02
Specific gravity (25/25°C)		0.930
Liquid density @ 20°C @ 25°C	g/cm <sup>3</sup>	0.930
	g/cm <sup>3</sup>	0.927
Vapor density (air = 1)		> 6

This data provided for those properties are typical values, and should not be construed as sales specifications.

## Typical Physical Properties (Cont.)

Property	Unit	Value
Viscosity (@ 25°C)	mm <sup>2</sup> /s	7.0
Surface tension (@ 20°C)	dynes/cm or mN/m	29.7
Specific heat (@ 25°C)	J/g/°C	1.80
Heat of vaporization at normal boiling point	J/g	2220
Net heat of combustion — predicted @ 25°C	kJ/g	30.4
Autoignition temperature	°C (°F)	202 (396)
Evaporation rate (n-butyl acetate = 1.0)		< 0.01
Solubility, g/L or % @ 25°C		
Solvent in water	g/L	40.2
Hansen solubility parameters		
$\delta_d$ (Dispersion)	J/cm <sup>3</sup> ) <sup>1/2</sup>	14.8
$\delta_p$ (Polar)		1.7
$\delta_h$ (Hydrogen bonding)		7.9
Partition Coefficient, n-octanol/water	log Pow	1.9
Flammable limits		
Lower	vol.% in air	
Upper		

## Classification/ Registry Numbers/Country Inventory<sup>1</sup>

CAS#	55934-93-5
AICS (Australia)	55934-93-5
DSL (Canada)	55934-93-5
IECSC (China)	55934-93-5
ECI (Korea)	55934-93-5/97-3-252
EINECS (EU)	259-910-3
MITI (Japan)	55934-93-5
ENCS/ISHL (Japan)	7-97
NZIoC (New Zealand)	55934-93-5
PICCS (Philippines)	55934-93-5
TSCA (U.S.)	55934-93-5

<sup>1</sup>NOTE: Classifications apply only to this glycol ether product. It is the responsibility of the formulator to ensure that the final finished product complies with the regulations of a given country prior to its sale or distribution in that country.

## How Supplied

REGION	PACKAGING	TRANSPORT MODE
Europe/Africa	Bulk/Drum	Tank Truck
Latin America	Bulk/Drum	Tank Truck
North America	Bulk/Drum	Tank Truck/Tank Car
Pacific	Bulk/Drum	Tank Truck

## **Product Stewardship**

Dow encourages its customers and potential users to review their applications from the standpoint of human health and environmental aspects. To help ensure that Dow products are not used in ways for which they are not intended or tested, Dow personnel will assist customers in dealing with environmental and product safety considerations. Dow literature, including Material Safety Data Sheets, should be consulted prior to the use.

### **Contact:**

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