



Technical Data Sheet

DOWANOL™ PnB Glycol Ether

Synonyms

Propylene glycol n-butyl ether; 3-Butoxypropan-2-ol; propylene glycol monobutyl ether.

Sustainability Attribute:

Chemical Formula

C₄H₉OCH₂CH(CH₃)OH (major isomer)



Product Description

DOWANOL™ PnB Glycol Ether is a fast-evaporating, hydrophobic glycol ether with high solvency and excellent coupling abilities. DOWANOL™ PnB Glycol Ether is extensively used in heavy-duty cleaning formulations. It does an excellent job of solvating and coupling hydrophobic greases and oils in household as well as industrial formulations. It is partly water soluble and miscible with most organic solvents. DOWANOL™ PnB Glycol Ether also provides excellent surface-tension lowering ability. In coatings DOWANOL™ PnB Glycol Ether offers good coalescing ability in systems requiring fast evaporation.

Applications

- Coupling agent and solvent in household and industrial cleaners, grease and paint removers, metal cleaners, and hard surface cleaners.
- Effective coupling agent and efficient solvent for water-reducible coatings.
- Effective coalescent for lowering minimum film formation temperature (MFFT) in water-borne latex coatings.
- Active solvent for solvent-based coatings.
- Chemical intermediate for the production of epoxides, acid ester derivatives, solvents, and plasticizers.
- Effective coupling agent in water-based agricultural formulations.

Typical Properties

Specification Writers: These values are not intended for use in preparing specifications.

Property	Unit	Result
Molecular Weight	g/mol	132.2
Boiling Point @ 760 mmHg, 1.01 ar	°C (°F)	171 (340)
Flash Point (Setaflash Closed Cup)	°C (°F)	63 (145)
Freezing Point	°C (°F)	< -80 (< -112)
Vapor Pressure @ 20°C — Extrapolated	mmHg hPA	0.85 (1.05 @ 25°C) 1.39
Specific Gravity (20/20°C)		0.878
Liquid Density @ 20°C	g/cm ³	0.879
@ 25°C	g/cm ³	0.875

Typical Properties (Cont.)

Property	Unit	Result
Vapor Density (air = 1)		4.6
Viscosity	cP or mPa•s @ 25°C	2.8
Surface Tension	dynes/cm or mN/m @ 20°C	27.5
Specific Heat	J/g/°C @ 25°C	1.98
Heat of Vaporization at Normal Boiling Point	J/g	320
Net Heat of Combustion — Predicted @ 25°C		31.4
Autoignition Temperature	°C (°F)	260 (500)
Evaporation Rate (N-butyl Acetate = 1.0)		0.093
Solubility, g/L or % @ 20°C		
Solvent in Water	g/L	52
Hansen Solubility Parameters	(J/cm ³) ^{1/2}	
χ_d (Dispersion)		14.9
χ_p (Polar)		4.9
χ_h (Hydrogen Bonding)		10.7
Partition Coefficient, N-octanol/Water (Log Pow)		1.2
Flammable Limits (Vol.% in Air)		
Lower		1.1
Upper		8.4

Classification/ Registry Numbers/Country Inventory¹

CAS#	5131-66-8
AICS (Australia)	5131-66-8
DSL (Canada)	5131-66-8
IECSC (China)	5131-66-8
ECI (Korea)	5131-66-8/KE-04165
EINECS (EU)	225-878-4
MITI (Japan)	5131-66-8
ENCS/IHSL (Japan)	2-2424
NZIoC (New Zealand)	5131-66-8/HSR001419
PICCS (Philippines)	5131-66-8
TSCA (U.S.)	5131-66-8

¹NOTE: 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

Handling Precautions

PRODUCT SAFETY INFORMATION REQUIRED FOR SAFE USE IS NOT INCLUDED IN THIS DOCUMENT. BEFORE HANDLING, READ PRODUCT AND SAFETY DATA SHEETS AND CONTAINER LABELS FOR SAFE USE, PHYSICAL AND HEALTH HAZARD INFORMATION. THE SAFETY DATA SHEET IS AVAILABLE ON THE DOW WEBSITE AT DOW.COM, OR FROM YOUR DOW SALES APPLICATION ENGINEER, OR DISTRIBUTOR, OR BY CALLING DOW CUSTOMER SERVICE.

Limitations

This product is neither tested nor represented as suitable for medical or pharmaceutical uses.

Health and Environmental Information

To support customers in their product safety needs, Dow has an extensive Product Stewardship organization and a team of product safety and regulatory compliance specialists available in each area.

For further information, please see our website, dow.com, or consult your local Dow representative.

Disposal Considerations

Dispose in accordance with all local, state (provincial) and federal regulations. Empty containers may contain hazardous residues. This material and its container must be disposed in a safe and legal manner.

It is the user's responsibility to verify that treatment and disposal procedures comply with local, state (provincial) and federal regulations. Contact your Dow Technical Representative for more information.

Product Stewardship

Dow has a fundamental concern for all who make, distribute, and use its products, and for the environment in which we live. This concern is the basis for our product stewardship philosophy by which we assess the safety, health, and environmental information on our products and then take appropriate steps to protect employee and public health and our environment. The success of our product stewardship program rests with each and every individual involved with Dow products — from the initial concept and research, to manufacture, use, sale, disposal, and recycle of each product.

Customer Notice

Dow strongly encourages its customers to review both their manufacturing processes and their applications of Dow products from the standpoint of human health and environmental quality to ensure that Dow products are not used in ways for which they are not intended or tested. Dow personnel are available to answer your questions and to provide reasonable technical support. Dow product literature, including safety data sheets, should be consulted prior to use of Dow products. Current safety data sheets are available from Dow.

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DOWANOL™ PnB Glycol Ether
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