

Product Name

DOWANOL™ PnP

Synonyms

Propylene glycol n-propyl ether; 1-Propoxy-2-propanol.

Chemical Formula

C₃H₇OCH₂CH(CH₃)OH (major isomer)

Product Description

DOWANOL™ PnP glycol ether is a fast-evaporating glycol ether with an excellent balance of hydrophilic and hydrophobic character along with outstanding soil removal and coupling properties. DOWANOL™ PnP glycol ether offers an excellent balance between hydrophilic and hydrophobic character; it is our most hydrophobic glycol ether that still maintains complete water solubility. DOWANOL™ PnP glycol ether is our P-series product that most closely matches the properties of Butyl CELLOSOLVE™ glycol ether. Its primary use is in cleaning products, where its fast evaporation rate and excellent ability to solubilize organic soils makes it useful in a wide variety of formulation systems. DOWANOL™ PnP glycol ether is an excellent choice in glass cleaners and all-purpose cleaners, especially in combination with selected PM-series glycol ethers.

Applications

- Coupling agent and solvent in household and industrial cleaners, grease and paint removers, metal cleaners, and hard surface cleaners.
- Coupling cosolvent in water-reducible aerosol paint formulations...
- Blends with other P-series glycol ethers for an effective coalescent in water borne latex coatings.

Typical Physical Properties

| Property | Value |
|--|------------------------|
| Molecular Weight (g/mol) | 118.2 |
| Boiling Point @ 760 mmHg, 1.01 ar | 149 °C (300 °F) |
| Flash Point (Setaflash Closed Cup | 46 °C (115 °F) |
| Freezing Point | -70 °C (-94°F) |
| Vapor pressure@ 25°C — extrapolated | 2.85 mmHg |
| | 3.8 hPa |
| Specific gravity (20/20°C) | 0.88 |
| Liquid Density @ 20°C | 0.885 g/cm3 |
| @ 25°C | 0.880 g/cm3 |
| Vapor Density (air = 1) | No test data available |
| Viscosity (cP or mPa•s @ 25°C) | 2.389 |
| Surface tension (dynes/cm or mN/m @ 20°C) | 25.4 |
| Specific heat (J/g/°C @ 25°C) | 1.98 |
| Heat of vaporization (J/g) at normal boiling | 369 |
| point | |

Form No. 110-00589-0812

| Net heat of combustion (kJ/g) — predicted | 30.0 |
|---|-----------------|
| @ 25°C | |
| Autoignition temperature | 252 °C (486 °F) |
| Evaporation rate (n-butyl acetate = 1.0) | 0.21 |
| Solubility, g/L or % @ 25°C | |
| Solvent in water | 100 % |
| Hansen solubility parameters | |
| (J/cm ³) _{1/2} | |
| _d (Dispersion) | 15.1 |
| _p (Polar) | 5.7 |
| _h (Hydrogen bonding) | 11.7 |
| Partition Coefficient, n-octonol/water | 0.621 |
| (log Pow) | |
| Flammable limits (vol.% in air) | |
| Lower | 1.3 |
| Upper | 10.6 |
| | |

Typical Physical Properties:

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

Classification/Registry Numbers/Country Inventory@.

| CAS# | 1569-01-3 | |
|---------------------|---------------------|--|
| AICS (Australia) | 1569-01-3 | |
| DSL (Canada) | 1569-01-3 | |
| IECSC (China) | 1569-01-3 | |
| ECI (Korea) | 1569-01-3/KE-29773 | |
| EINECS (EU) | 216-372-4 | |
| MITI (Japan) | 1569-01-3 | |
| ENCS/ISHL (Japan) | 2-2424 | |
| NZIoC (New Zealand) | 1569-01-3/HSR001420 | |
| PICCS (Philippines) | 1569-01-3 | |
| TSCA (U.S.) | 1569-01-3 | |

@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.



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