COVATION BIO|PDO susterra®

Product Data Sheet

Susterra® Propanediol—Heat Transfer Fluids

INCI Name: 1,3-Propanediol

CAS Number: 504-63-2

EINECS Number: 207-997-3

Summary

The natural choice in glycols.

Susterra® propanediol offers a higher-performing alternative to propylene glycol for use as the primary ingredient in heat-transfer fluids. The low-viscosity profile of Susterra® propanediol reduces pump power consumption and enhances flow rates and pumping efficiencies, which can reduce energy demands and maintenance costs in low-temperature applications. The low degradability of the gylcol provides protection against periods of stagnation, slows fluid ageing, and prevents “tarring” in the systems which may give installations a longer working life in high-temperature applications. Plus, every drop of our pure, bio-based glycol is renewably sourced from plant materials, not petroleum.

Applications

- Food and beverage process cooling
- Immersion freezing
- Cooling liquid foods and dairy products
- Fermentation and maturation cooling
- Carbonated beverage cooling
- Plastic bottle blow-molding cooling
- Ice systems
- Data center and server room cooling
- Single-fluid process cooling
- Closed-loop, water-based HVAC applications
- Solar thermal systems
- Geothermal systems
- Engine coolants
- Deicing fluids

Packaging

18.1 kg (40 lb) Pails
199.6 kg (440 lb) Drums
997.9 kg (2,200 lb) Totes
Tank Trucks
ISO Tank Containers

Storage Conditions and Expiration Date

Sealed containers should be stored within a temperature range of 0°– 50°C (32°–122°F). Containers can be resealed and stored within the same temperature range. Avoid prolonged exposure to oxygen and water. The use of nitrogen during storage is encouraged. If the seal is unbroken and the material has been stored according to the manufacturer’s recommendations, a 2 year shelf life can be expected.

Purity Guarantee

Susterra® propanediol is made from fermentation of glucose and contains no added preservatives, petroleum-based ingredients, or animal by-products.

Benefits

- Improved viscosity at lower temperatures compared to propylene glycol, driving process cooling efficiency
- Excellent freeze-point depression for aqueous solution applications
- Exceptional degradation properties compared to propylene glycol and ethylene glycol for process-heating applications where stagnation may occur under extreme temperatures
- Higher boiling point versus propylene glycol and ethylene glycol-based heat-transfer fluids
- 100% USDA bio-based material, renewably and sustainably sourced
- Safe, low-toxic, and readily biodegradable
- Approved for incidental food contact under the NSF International HTX-1 specification GRAS, Halal, Kosher
- Contributes to LEED points

Typical Properties

Appearance	Clear
Molecular Weight	76.1
Hydroxyl Value	1475
Viscosity, cP (20°C)	49
Density (20°C)	1.053
Boiling Point (760 mmHg)	214°C / 417°F
Freezing Point	-24°C / -11°F
Flash Point	129°C / 264°F
Purity, wt%	99.7%
Water, % max	0.05%
Color, APHA max	15

COVATION BIO|PDO™

For additional information or samples please contact Customer Service

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