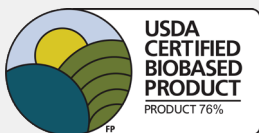


VANLUBE® 289

Friction Reducer/
Antiwear



TECHNICAL DATA

VANLUBE® 289 is an ashless organic friction reducer for engine oils, industrial oils, gear oils and greases. It also functions as an excellent antiwear additive by itself or in combination with other antiwear additives. This additive is also sulfur and phosphorus-free.

CHEMICAL COMPOSITION

Borated ester amide

TYPICAL PROPERTIES

Physical State	Liquid
Appearance	Yellow
Density @ 15.6°C, Mg/m ²	0.99
Viscosity at 40°C, mm ² /s	550
Viscosity at 100°C, mm ² /s	22
Flash Point (PMCC), °C	191
Boron, %	0.9

*The analytical data listed above are not specifications

APPLICATIONS

- Engine Oils
- Racing Oils
- Gear Oils
- Automatic Transmission Fluids
- Greases
- Metal Working Fluids

RECOMMENDED TREAT RATES

- Typical range is 0.1 to 1.0 wt. % but can vary based on formulation style and application

ADVANTAGES

- Allows for ease of handling as low viscosity liquid
- Imparts light color in a wide variety of lubricants
- Offers multifunctionality as an additive that reduces both friction and wear in finished lubricants
- Synergizes with other friction reducers and antiwear additives to reduce friction and wear
- Provides utility in low SAPs applications that require sulfur and phosphorus-free additives
- Listed on the Lubrication Substance List (LuSC) for environmentally acceptable lubricants



SOLUBILITY

- Soluble in mineral and synthetic base oils

STANDARD PACKAGING

- 425 lb. metal drums

HANDLING AND STORAGE

Please refer to Section 7 of the SDS for handling and storage information.

Additional handling and storage information:

Suggested pumping temperature is 40°C.

Short and long term maximum handling temperatures are 80°C and room temperature respectively.

VANLUBE® 289 can separate, crystallize or form a gel when exposed to low temperatures. If this happens, heat to 80°C and mix thoroughly before use.

REGISTRATION

Please refer to section 15 of SDS for regulatory information.

CONTACT INFORMATION

For samples, product information and/or technical service, please contact Vanderbilt Chemicals, LLC or the Vanderbilt representative in your area:

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