

**TERRAVIS® BD-300 Ethoxylate**

SECTION 1 IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Trade name	TERRAVIS® BD-300 Ethoxylate		
Synonyms	Ethoxylated Diol		
Use	Industrial use, Oilfield		
Company	Sasol Chemicals (USA) LLC (an affiliate of Sasol Chemicals North America LLC)		
Address	12120 Wickchester Lane Houston TX 77079		
Telephone	CHEMTREC North America Transportation Emergency (24-hr)	(800) 424-9300	
	CHEMTREC World Wide	(703) 527-3887	
	Other Emergencies (24-hr)	(337) 494-5142	
	SDS and Product Information (8:00am-4:30pm CST)	(281) 588-3491	
	Health and Safety Information (7:30am-4:00pm CST)	(281) 588-3492	
E-mail address	SasolElectronicSDS@us.sasol.com		

SECTION 2 HAZARDS IDENTIFICATION

Not a hazardous substance or mixture according to OSHA HCS 2012.

SECTION 3 COMPOSITION/INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS-No.</u>	<u>Weight percent</u>
1,4-Butanediol, ethoxylated	61886-16-6	100

See Section 8 for Exposure Guidelines and Section 15 for Regulatory Classifications.

SECTION 4 FIRST AID MEASURES

Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.
Skin contact	Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. When symptoms persist or in all cases of doubt seek medical advice. Wash contaminated clothing before re-use.
Inhalation	Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician immediately.
Ingestion	If swallowed, call a poison control centre or doctor immediately. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.

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SECTION 5 FIREFIGHTING MEASURES

FLAMMABLE PROPERTIES

Fire/explosion NFPA Class IIIB combustible liquid.

Suitable extinguishing media Water spray, Alcohol-resistant foam, Dry chemical, Carbon dioxide (CO₂)

Protective equipment and precautions for firefighters Wear self-contained breathing apparatus for firefighting if necessary.

Further information Keep containers and surroundings cool with water spray. Do not use a solid water stream as it may scatter and spread fire. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

SECTION 6 ACCIDENTAL RELEASE MEASURES

Methods and materials for containment and cleaning up Evacuate personnel to safe areas. Remove all sources of ignition. Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13). Spilled material will solidify. Sweep up and shovel into suitable containers for disposal. Do not flush into surface water or sanitary sewer system.

SECTION 7 HANDLING AND STORAGE

Safe handling advice Take precautionary measures against static discharges.

Storage/Transport pressure Ambient

Load/Unload temperature 80 °C
176 °F

Storage and handling materials Suitable: Carbon steel coated with baked phenolic. Any moisture may cause rusting of carbon steel. If product is moisture free, uncoated carbon steel tanks.

Further information on storage conditions Mix thoroughly before use. When stored in the liquid form, ethoxylates should be padded with a dry inert gas, such as nitrogen, to prevent oxygen or air from entering the tank. Prolonged storage in the presence of air or oxygen may cause product degradation. Oxidation is not expected when stored under a nitrogen atmosphere. Inert gas blanket and breathing system needed to maintain color stability. Use dry inert gas having at least -40°C (-40°F) dew point.

SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING MEASURES

Ensure adequate ventilation, especially in confined areas. Trace amounts of ethylene oxide may be present in the product and could accumulate in vapor spaces of storage or

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transport vessels.

PERSONAL PROTECTIVE EQUIPMENT

Eyes Wear as appropriate: Goggles, Face-shield

Skin Full protective clothing, chemical boots, and chemical gloves.

Inhalation Use respirator when performing operations involving potential exposure to vapour of the product. Use NIOSH approved respiratory protection.

EXPOSURE GUIDELINES

Components Exposure limit(s)

Butylated hydroxytoluene (BHT) ACGIH TLV (8-hour) 2 mg/m³ (inhalable aerosol and/or vapor)

PEL= Permissible Exposure Limits
TLV= Threshold Limit Value
EL= Excursion Limit

TWA= Time Weighted Average (8 hr.)
STEL= Short Term Exposure Limit (15 min.)
WEEL= Workplace Environmental Exposure Level

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

Appearance Solid;

Colour white

Form Solid, pastilles, flakes

Odour sweet pungent

Odour Threshold no data available

Flash point estimated > 125 °C, > 257 °F;

Flammability Upper explosion limit: no data available

Lower explosion limit: no data available

Boiling point/boiling range estimated > 250 °C, > 482 °F;

Melting point/range estimated 58.2 °C, 136.8 °F;

Auto-ignition temperature no data available

Decomposition temperature no data available

Flammability (solid, gas) no data available

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Vapour pressure	no data available
Vapour density	no data available
Density	estimated 1.0691 g/cm ³ @ 80 °C, 176 °F;
Specific gravity	no data available
Water solubility	soluble
Viscosity	615.8 mm ² /s @ 80 °C, 176 °F;
pH	6 - 8
Evaporation rate	no data available
Partition coefficient: n-octanol/water	no data available

SECTION 10 STABILITY AND REACTIVITY

Reactivity	Stable at normal ambient temperature and pressure.
Chemical stability	No decomposition if stored and applied as directed.
Conditions to avoid	Reacts slowly with air or oxygen. Storage under heated conditions in the presence of air or oxygen increases reaction rate. For example, after storing at 95°F/35°C for 30 days in the presence of air, there is measureable oxidation of the ethoxylate. Lower temperatures will allow for longer storage time and higher temperatures will shorten the storage time if stored under an air or oxygen atmosphere.
Hazardous decomposition products	When storing this product in air or oxygen, decomposition may occur, generating vapors which could be irritating. Ensure adequate ventilation, especially in confined areas. Oxidation is not expected when stored under a nitrogen atmosphere.
Materials to avoid	Can react with strong oxidizers, inorganic acids, and halogens.
Hazardous polymerisation	None.

SECTION 11 TOXICOLOGICAL INFORMATION

Additional Remarks	No data is available on the product itself.
Acute dermal toxicity	no data available
Acute inhalation toxicity	no data available
Acute oral toxicity	no data available

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Skin corrosion/irritation	no data available
Eye damage/irritation	no data available
Respiratory or skin sensitization	no data available
Germ cell mutagenicity	Genotoxicity in vitro: no data available Genotoxicity in vivo: no data available Assessment Mutagenicity: no data available
Reproductive toxicity	Reproductive toxicity: no data available Assessment Reproductive toxicity: no data available Teratogenicity: no data available Assessment teratogenicity: no data available
STOT - single exposure	no data available
STOT - repeated exposure	no data available
Aspiration toxicity	no data available
Carcinogenicity	Assessment carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

SECTION 12 ECOLOGICAL INFORMATION

Aquatic toxicity	Information given is based on data obtained from similar substances.
Toxicity to fish	LD50 (Fish) 96 hours: 2,869 mg/l
Toxicity to aquatic invertebrates	EC50 (Daphnia magna (Water flea)) 48 hours: 668 mg/l

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Toxicity to algae	EC50 (Desmodesmus subspicatus (green algae)) 72 hours: 90.2 mg/l
Chronic toxicity to fish	no data available
Chronic toxicity to aquatic invertebrates	no data available
Biodegradation	no data available
Bioaccumulation	no data available
Mobility in soil	no data available
Other adverse effects	no data available

SECTION 13 DISPOSAL CONSIDERATIONS

Waste Code	Any unused product or empty containers may be disposed of as non-hazardous in accordance with state and federal requirements. Re-evaluation of the product may be required by the user at the time of disposal, since the product uses, transformations, mixtures, contamination, and spillage may change the classification. If the resulting material is determined to be hazardous, please dispose in accordance with state and federal (40 CFR 262) hazardous waste regulations.
Disposal methods	Dispose of only in accordance with local, state, and federal regulations.
Empty containers.	Empty containers retain product residue (liquid and/or vapor) and can be dangerous. DO NOT PRESSURIZE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION; THEY MAY EXPLODE AND CAUSE INJURY OR DEATH. Empty drums should be completely drained, triple-rinsed, properly bunged and promptly returned to a drum reconditioner, or properly disposed.

SECTION 14 TRANSPORT INFORMATION

DOT	Not regulated.
IATA	Not regulated.
IMDG	Not regulated.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Remarks	no data available
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SECTION 15 REGULATORY INFORMATION

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U.S. FEDERAL REGULATIONS**OSHA Hazards (HCS 1994)**

no data available

TSCA Inventory Listing**Components**Poly(oxy-1,2-ethanediyl), α,α' -1,4-butanediylbis[ω -hydroxy-**CAS-No.**

61886-16-6

SARA 302 Status**Components****CAS-No.****Weight percent**

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Classification

Non-hazardous substance

SARA 313 Chemical**Components****CAS-No.****Weight percent**

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

US. EPA CERCLA Hazardous Substances (40 CFR 302)**Components**

none

Reportable Quantity**Weight percent****INTERNATIONAL REGULATIONS****WHMIS Classification**

WHMIS hazardous composition: No ingredients are hazardous according to the CPR criteria.

European Union

The product does not need to be labelled in accordance with EC directives or respective national laws.

Australia. Inventory of Chemical Substances (AICS)	Listed
Japan. Inventory of Existing and New Chemical Substances (ENCS)	Not listed
Japan. Industrial Safety & Health Law (ISHL) Inventory	Not listed
Canada. Domestic Substances List (DSL) Inventory	Listed
Canadian Non-Domestic Substance Listing (NDSL)	Not listed
European Inventory of Existing Commercial Chemical Substances (EINECS) Listing	Not listed
Philippines. Inventory of Chemicals / Chemical Substances (PICCS)	Listed
Korea. Existing Chemicals Inventory (KECI)	Not listed
China. Inventory of Existing Chemical Substances (IECSC)	Listed

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Mexico. National Inventory of Chemical Substances (INSQ)	Not listed
New Zealand. Inventory of Chemicals (NZIoC)	Not listed
Switzerland. Inventory of Notified New Substances (CHINV)	Not listed
Taiwan. National Existing Chemical Inventory (NECI)	Not listed

Please note: The names and CAS numbers which are used for this product in the stated inventories may deviate from the information which is listed in Section 3.

STATE REGULATIONS**California Prop. 65**

Components
Ethylene Oxide

CAS-No.
75-21-8

Sasol Chemicals (USA) LLC's ethoxylates may contain detectable quantities of ethylene oxide which is a chemical on the California Proposition 65 list. The level is typically below 1.0 ppm, although it may vary. The manufacturing process is controlled to reduce the residual ethylene oxide content.

SECTION 16 OTHER INFORMATION

HAZARD RATINGS

	<u>Health</u>	<u>Flammability</u>	<u>Physical Hazard/ Instability</u>
HMIS®	1	1	0
NFPA	1	1	0

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