



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material Name NE-100
Revision Date 12/21/2011
Version # 3
Product Use Non-emulsifier.
Manufacturer / Supplier FRAC TECH SERVICES LLC
2500 HWY 62 West
Chickasha, OK 73018
US
General information: 1-405-222-2300
Emergency 24 Hour Emergency: INFOTRAC: 1-800-535-5053

2. Hazards Identification

Physical State Liquid.
Appearance Yellow liquid.
Emergency Overview WARNING!
Causes skin and eye irritation. Mist or vapor irritating to eyes and respiratory tract. Combustible liquid and vapor.
OSHA regulatory status This product is hazardous according to OSHA 29 CFR 1910.1200.
Routes of exposure Inhalation. Eyes. Skin.
Eyes Causes eye irritation.
Skin Causes skin irritation.
Inhalation Causes respiratory tract irritation.
Ingestion No harmful effects expected in amounts likely to be ingested by accident.
Potential environmental effects Not expected to be harmful to aquatic organisms.

3. Composition / Information on Ingredients

Components	CAS #	Percent
2-Butoxyethanol	111-76-2	1 - 10
2-Propanol	67-63-0	1 - 10
Dodecylbenzenesulfonic acid	27176-87-0	1 - 5

Composition comments All concentrations are in percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

4. First Aid Measures

First aid procedures

Eye Contact Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention. In case of irritation from airborne exposure, move to fresh air. Get medical attention if symptoms persist.
Skin Contact Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.
Inhalation Move to fresh air. Treat symptomatically. Get medical attention if symptoms persist.
Ingestion Seek medical advice.
Notes to physician Not available.

5. Fire Fighting Measures

Flammable Properties

Combustible liquid and vapor. Use water with caution: Material will float and may ignite on the surface of water.

Extinguishing media

Suitable extinguishing media

Water. Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

Not available.

Specific Hazards arising from the Chemical

Not available.

Firefighting equipment / instructions

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Specific Methods

Use water spray to cool unopened containers.

Hazardous combustion products

Carbon oxides.

6. Accidental Release Measures

Personal precautions

Wear appropriate personal protective equipment (See Section 8).

Methods for cleaning up

Absorb spill with vermiculite or other inert material, then place in a container for chemical waste for proper disposal.

Large Spills: Flush area with water. Prevent runoff from entering drains, sewers, or streams. Dike for later disposal.

7. Handling and Storage

Handling

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

Storage

Keep away from heat, sparks, and flame. Keep container closed. Store away from incompatible materials (See Section 10).

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
2-Butoxyethanol	20	Not available.	Not available.	Not available.
2-Propanol	200	Not available.	400	Not available.
Dodecylbenzenesulfonic acid	Not available.	Not available.	Not available.	Not available.

US. OSHA Table Z-1 Limits for Air Contaminates (29 CFR 1910.1000)

Components	PEL	
	ppm	mg/m ³
2-Butoxyethanol	50	240
2-Propanol	400	980
Dodecylbenzenesulfonic acid	Not available.	Not available.

Canada. Alberta OELs (Occupational Health Safety Code, Schedule 1, Table 2)

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
2-Butoxyethanol	20	97	Not available.	Not available.
2-Propanol	200	492	400	984
Dodecylbenzenesulfonic acid	Not available.	Not available.	Not available.	Not available.

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
2-Butoxyethanol	20	Not available.	Not available.	Not available.
2-Propanol	200	Not available.	400	Not available.
Dodecylbenzenesulfonic acid	Not available.	Not available.	Not available.	Not available.

Canada. Ontario OELs. (Ministry of Labor - Control of Exposure to Biological or Chemical Agents) Components

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
2-Butoxyethanol	20	Not available.	Not available.	Not available.
2-Propanol	200	Not available.	400	Not available.
Dodecylbenzenesulfonic acid	Not available.	Not available.	Not available.	Not available.

Canada. Quebec OELS. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment) Components

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3
2-Butoxyethanol	20	97	Not available.	Not available.
2-Propanol	400	983	500	1230
Dodecylbenzenesulfonic acid	Not available.	Not available.	Not available.	Not available.

Mexico. Occupational Exposure Limit Values

Components	TWA		STEL	
	ppm	mg/m3	ppm	mg/m3

2-Butoxyethanol	26	120	75	360
2-Propanol	400	980	500	1225
Dodecylbenzenesulfonic acid	Not available.	Not available.	Not available.	Not available.

Engineering controls	Ensure adequate ventilation, especially in confined areas.
Personal protective equipment	
Eye / face protection	Wear safety glasses with side shields (or goggles).
Skin protection	Wear chemical-resistant gloves, footwear and protective clothing appropriate for risk of exposure. Contact glove manufacturer for specific information.
Respiratory protection	If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA 29 CFR 1910.134. Respirator type: Air-purifying respirator with an appropriate, government approved (where applicable), air-purifying filter, cartridge or canister.
General hygiene consideration	Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and Chemical Properties

Appearance:	Yellow liquid.
Color	Yellow.
Odor	Mild. Citrus
Odor threshold	Not available.
Physical State	Liquid.
Form	Liquid.
pH	3.55 1%v/v
Melting point	Not available.
Freezing point	28 °F (-2.2 °C)
Boiling point	183.2 °F (84 °C)
Flash point	127.9 °F (53.3 °C) Closed Cup
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Specific Gravity	0.99 (25°C)
Solubility (water)	Soluble.
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.

Bulk Density	8.26 lb/gal
VOC	Not available.
Viscosity	Not available.
Percent volatile	Not available.

10. Chemical Stability Reactivity Information

Chemical Stability	Material is stable under normal conditions.
Conditions to avoid	Keep away from heat, sparks, and flame.
Incompatible material	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reaction	Hazardous polymerization does not occur.

11. Toxicology Information

Toxicological Data

Components	Test Results
2-Butoxyethanol	Not available.
2-Propanol	Not available.
Dodecylbenzenesulfonic acid	Not available.

Sensitization This material has a low potential to cause allergic skin reactions; however, cases of human skin sensitization have been reported.

Carcinogenicity

2-Butoxyethanol	A3 Confirmed animal carcinogen with unknown relevance to humans. 3 Not classifiable as to carcinogenicity to humans.
2-Propanol	A4 Not classifiable as a human carcinogen.
Dodecylbenzenesulfonic acid	Not available.

Epidemiology Not available.

Mutagenicity Not available.

Reproductive effects Not available.

Teratogenicity Not available.

Further Information Not available.

12. Ecological Information

Ecotoxicological data

Components	Test Results
2-Butoxyethanol	Not available.
2-Propanol	Not available.

Dodecylbenzenesulfonic acid Not available.

Ecotoxicity Not expected to be harmful to aquatic organisms.

Persistence and degradability Not available.

Bioaccumulation / Accumulation Not available.

Mobility in environmental media Not available.

Partition coefficient (n-octanol/water) Not available.

13. Disposal Considerations

Waste codes D001: Waste Flammable material with a flash point <140 °F

Disposal instructions Dispose of contents/container in accordance with local/regional/national/international regulations. When this product as supplied is to be discarded as waste, it may meet the definition of a RCRA waste under 40 CFR 261.

Contaminated packaging Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information

DOT

UN number	UN1993
Proper shipping name	Combustible liquid, n.o.s. (2-butoxyethanol 10%)
Hazard class	3
Packing Group	III
Labels required	3
DOT reportable quantity	100
Additional information	
Special provisions	B1, B52, IB3, T4, TP1, TP29
Packaging exceptions	150
Packaging non bulk	203
Packaging bulk	242
ERG number	128

IATA

UN number	UN1993
Proper shipping name	Combustible liquid, n.o.s. (2-butoxyethanol)
Hazard class	3
Packing group	III
Additional information	
ERG code	3L

IMDG

UN number	UN1993
Proper shipping name	Combustible liquid, n.o.s. (2-butoxyethanol)
Hazard class	3
Packing group	III

EmS No F-E, S-E*

IMDG Additional information:

15. Regulatory Information

US federal regulation This product is hazardous according to OSHA 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.

CERCLA (Superfund) Reportable Quantity: 2-Propanol : 100lbs Dodec ylben zenes ulfonic acid: 1000lbs

Superfund amendments and Reauthorization Act of 1986 (SARA)

Table with Hazard Categories and Immediate/Delayed/Fire/Pressure/Reactivity Hazard status (Yes/No).

TSCA Section 12(b) Export Notification(40 CFR 707, Subpt. D): Not regulated.

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration 2-Butoxyethanol (CAS 111-76-2) 1.0 % N230 2-Propanol (CAS 67-63-0) 1.0 %

US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance 2-Butoxyethanol (CAS 111-76-2) N230 Listed. 2-Propanol (CAS 67-63-0) Listed.

Section 302 extremely hazardous substance (40 CRF 355, Appendix A): No

Section 311/312 (40 CFR 370): No

Drug Enforcement Administration (DEA) (21 CFR 1308.11-15): Not controlled

Inventory Status

Table with columns: Country, Inventory Name, On Inventory * (Yes/No).

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

WHMIS Information WHMIS status Controlled WHMIS classification B3 - Flammable/Combustible D2B - Other Toxic Effects-TOXIC

State Regulation This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

US - California Hazardous Substances (Director's): Listed substance
2-Butoxyethanol (CAS 111-76-2) Listed.
2-Propanol (CAS 67-63-0) Listed.
Dodecylbenzenesulfonic acid (CAS 27176-87-0) Listed.

US - Massachusetts RTK - Substance: Listed substance
2-Butoxyethanol (CAS 111-76-2) Listed.
2-Propanol (CAS 67-63-0) Listed.
Dodecylbenzenesulfonic acid (CAS 27176-87-0) Listed.

US - New Jersey Community RTK (EHS Survey): Reportable threshold
2-Butoxyethanol (CAS 111-76-2) 500 LBS
2-Propanol (CAS 67-63-0) 500 LBS

US - New Jersey RTK - Substances: Listed substance
2-Butoxyethanol (CAS 111-76-2) Listed.
2-Propanol (CAS 67-63-0) Listed.
Dodecylbenzenesulfonic acid (CAS 27176-87-0) Listed.

US - Pennsylvania RTK - Hazardous Substances: Listed substance
2-Butoxyethanol (CAS 111-76-2) Listed.
2-Propanol (CAS 67-63-0) Listed.
Dodecylbenzenesulfonic acid (CAS 27176-87-0) Listed.

16. Other Information

Further Information

HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings

Health: 2
Flammability: 2
Physical Hazard: 0

A HMIS® rating including an * indicates a chronic hazard.

NFPA ratings

Health: 1
Flammability: 2
Instability: 0

Disclaimer

Seller warrants that the goods described herein shall conform to the seller's published specifications for such good. The goods described herein and the information relating to them is intended for use solely by buyers that have the necessary industrial skill, competence and knowledge to use these goods for their intended purposes. Buyers should undertake sufficient examination, verification and testing prior to use of the goods to determine the suitability and utility of the goods for Buyer's particular purposes. Buyer acknowledges that the conditions of use and uses of the good(s) are beyond the control of Seller. SELLER DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR ANY PARTICULAR PURPOSES WHATSOEVER WITH RESPECT TO THE GOODS BEING SOLD HEREUNDER. BUYER ACKNOWLEDGES THAT THE GOODS ARE BEING SOLD "AS IS." BUYER FURTHER ACKNOWLEDGES THAT THERE HAVE BEEN NO REPRESENTATIONS CONCERNING THE GOODS BEING SOLD HEREUNDER OTHER THAN WHAT ARE EXPRESSLY SET FORTH AND CONTAINED HEREIN.

Issue Date

12/21/2011