



CLEARWATER
Engineered Chemistry

Good

Material Safety Data Sheet

NE 21

HEALTH	*	1
FLAMMABILITY		2
PHYSICAL HAZARD		0
PERSONAL PROTECTION		

1. Product and Company Identification

Material name	NE 21
Patent Number	Not available
Revision date	September-30-2008
Version No.	1
CAS #	Mixture
Product use	Nonemulsifier
Manufacturer information	Clearwater International L.L.C. 4420 South Flores Road Elmendorf, TX 78112 US CHEMTREC 1-800-424-9300/703-527-3887
Emergency	CHEMTREC 1-800-424-9300/703-527-3887
Supplier information	Clearwater International L.L.C. 4420 South Flores Rd. Elmendorf, TX 78112 US
Supplier emergency telephone number(s)	CHEMTREC 1-800-424-9300/703-527-3887

2. Hazards Identification

Emergency overview	Will be easily ignited by heat, spark or flames. Prolonged exposure may cause chronic effects.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Skin contact. Eye contact.
Inhalation	Prolonged inhalation may be harmful.
Ingestion	May cause delayed lung damage. Do not ingest. Components of the product may be absorbed into the body by ingestion.
Target organs	Kidney.
	2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans.
	Blood. Central nervous system. Eyes. Gastrointestinal tract. Liver. Lungs. Respiratory system. Skin.



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Chronic effects	This product may be harmful if it is absorbed through the skin. Unconsciousness. Shortness of breath. Edema. Jaundice. Cyanosis. Liver injury may occur. Kidney injury may occur. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion, and blurred vision) and/or damage. May cause delayed lung damage.
Signs and symptoms	Unconsciousness. Discomfort in the chest. Shortness of breath. Narcosis. Cyanosis. Decrease in motor functions. Behavioral changes. Cough. Edema. Liver enlargement. Jaundice. Proteinuria.
Potential environmental effects	May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
EB-Butyl Cellosolve	111-76-2	15 - 40
Methanol	67-56-1	10 - 30

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.
Skin contact	Wash off with soap and water. Get medical attention if irritation develops or persists.
Inhalation	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. Do not induce vomiting without medical advice.
Notes to physician	Symptoms may be delayed.
General advice	Call a physician if symptoms develop or persist. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties	Flammable by OSHA criteria. Containers may explode when heated. Runoff to sewer may cause fire or explosion hazard.
Extinguishing media	
Suitable extinguishing media	Water. Foam. Alcohol foam. Dry chemical. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use a solid water stream as it may scatter and spread fire.
Protection of firefighters	
Specific hazards arising from the chemical	Fire may produce irritating, corrosive and/or toxic gases.



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Protective equipment and precautions for firefighters

In the event of fire and/or explosion do not breathe fumes. Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Fight fire from maximum distance or use unmanned hose holders or monitor nozzles. Withdraw immediately in case of rising sound from venting safety devices or any discoloration of tanks due to fire. Move containers from fire area if you can do it without risk. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Use water spray to cool unopened containers. Cool containers with flooding quantities of water until well after fire is out.

6. Accidental Release Measures

Personal precautions

Fully encapsulating, vapor protective clothing should be worn for spills and leaks with no fire. Ensure adequate ventilation. Keep people away from and upwind of spill/leak. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering. Keep unnecessary personnel away. Stay upwind. Keep out of low areas.

Methods for containment

Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewers, basements or confined areas.

Methods for cleaning up

Should not be released into the environment.

Large Spills: Dike far ahead of liquid spill for later disposal. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. After removal flush contaminated area thoroughly with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

Never return spills in original containers for re-use.

7. Handling and Storage

Handling

Do not handle or store near an open flame, heat or other sources of ignition. Use only with adequate ventilation. Wash thoroughly after handling. Avoid prolonged exposure.

Storage

Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

ACGIH

Components

CAS #

TWA

STEL

Ceiling

EB-Butyl Cellosolve

111-76-2

20 ppm

Not established

Not established

Methanol

67-56-1

200 ppm

250 ppm

Not established



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OSHA

Components	CAS #	TWA	STEL	Ceiling
EB-Butyl Cellosolve	111-76-2	50 ppm	Not established	Not established
Methanol	67-56-1	200 ppm	Not established	Not established

Engineering controls	Provide adequate ventilation.
Personal protective equipment	
Eye / face protection	Wear chemical goggles. Face-shield.
Skin protection	Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection. Protective gloves. Impervious gloves.
Respiratory protection	Wear positive pressure self-contained breathing apparatus (SCBA). When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
General hygiene considerations	Avoid contact with eyes. Avoid contact with skin. When using do not eat or drink. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with clothing.

9. Physical & Chemical Properties

Appearance	Liquid.
Color	clear - cloudy, light yellow
Odor	Not available.
Odor threshold	Not available
Physical state	Liquid.
Form	Liquid.
pH	6 - 8
Melting point	-11.2 °F (-23.8 °C) estimated
Freezing point	Not available
Boiling point	158 °F (70.45 °C) estimated
Flash point	112 °F (44.4 °C)
Evaporation rate	Not available
Flammability	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	0.96 - 0.99
Relative density	0.9749 g/cm3 estimated
Solubility (water)	Not available
Partition coefficient (n-octanol/water)	Not available
Auto-ignition temperature	341.6 °F (172 °C) estimated



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Decomposition temperature Not available
VOC 30 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability Risk of ignition. Stable at normal conditions.
Conditions to avoid Heat, flames and sparks.
Incompatible materials May form explosive mixtures with air. Strong oxidizing agents. Caustics.
Possibility of hazardous reactions Hazardous polymerization does not occur.

11. Toxicological Information

Acute effects Acute LD50: 2256 mg/kg estimated, Rat, Oral
Acute LD50: 1092 mg/kg estimated, Rat, Dermal
Acute LC50: 11 mg/l/4h estimated, Rat, Inhalation

Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

EB-Butyl Cellosolve	111-76-2	Inhalation LC50 Rat: 2.21 mg/L/4H; Inhalation LC50 Rat:450 ppm/4H; Oral LD50 Rat:470 mg/kg; Dermal LD50 Rat:2270 mg/kg; Dermal LD50 Rabbit:220 mg/kg
Methanol	67-56-1	Inhalation LC50 Rat: 83.2 mg/L/4H; Inhalation LC50 Rat:64000 ppm/4H; Oral LD50 Rat:5628 mg/kg; Dermal LD50 Rabbit:15800 mg/kg

Sensitization Not expected to be hazardous by OSHA criteria.
Local effects Liver toxicity. Blood disorder may occur after ingestion.
Chronic effects Hazardous by OSHA criteria. This product may be harmful if it is absorbed through the skin. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged or repeated exposure may cause lung injury. Prolonged exposure may cause chronic effects.

2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans.

Subchronic effects Kidney injury may occur. Blood disorder may occur after ingestion. Blood disorder may occur after prolonged inhalation. Blood disorder may occur after prolonged skin contact.

Carcinogenicity Not expected to be hazardous by OSHA criteria.

ACGIH - Threshold Limit Values - Carcinogens

EB-Butyl Cellosolve	111-76-2	A3 - Confirmed animal carcinogen with unknown relevance to humans
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Neurological effects Hazardous by OSHA criteria.

Further information Symptoms may be delayed.



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12. Ecological Information

Ecotoxicity LC50 7258 mg/L estimated, Fish, 96.00 Hours,
Components of this product have been identified as having potential environmental concerns.

Ecotoxicity - Freshwater Fish Species Data

EB-Butyl Cellosolve	111-76-2	96 Hr LC50 Lepomis macrochirus: 1490 mg/L [static]
Methanol	67-56-1	96 Hr LC50 Pimephales promelas: 28100 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 13200 mg/L

Ecotoxicity - Microtox Data

Methanol	67-56-1	5 min EC50 Photobacterium phosphoreum: 43000 mg/L; 15 min EC50 Photobacteriur phosphoreum: 40000 mg/L; 25 min EC50 Photobacterium phosphoreum: 39000 mg/L
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Ecotoxicity - Water Flea Data

EB-Butyl Cellosolve	111-76-2	24 Hr EC50 water flea: 1720 mg/L; 24 Hr LC50 Daphnia magna: 1698-1940 mg/L
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Environmental effects

Ecotoxicity - Freshwater Fish Species Data

EB-Butyl Cellosolve	111-76-2	96 Hr LC50 Lepomis macrochirus: 1490 mg/L [static]
Methanol	67-56-1	96 Hr LC50 Pimephales promelas: 28100 mg/L [flow-through]; 96 Hr LC50 Oncorhynchus mykiss: 13200 mg/L

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Ecotoxicity - Water Flea Data

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13. Disposal Considerations

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

U.S. - RCRA (Resource Conservation & Recovery Act) - U Series Wastes - Acutely Toxic Wastes & Other Hazardous Characteristics

Methanol	67-56-1	waste number U154 (Ignitable waste)
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Disposal instructions Dispose of this material and its container at hazardous or special waste collection point. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Incinerate the material under controlled conditions in an approved incinerator. Do not incinerate sealed containers. Dispose in accordance with all applicable regulations.

14. Transport Information

Department of Transportation (DOT) Requirements

Not regulated as hazardous goods.



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Department of Transportation (DOT) Requirements

Bulk

Basic shipping requirements:

Proper shipping name	Combustible Liquid, n.o.s. (Methanol)
Hazard class	3
UN number	1993
Packing group	III



Canadian Transportation of Dangerous Goods (TDG) Requirements

Basic shipping requirements:

Proper shipping name	FLAMMABLE LIQUID, TOXIC N.O.S. (Methanol)
Hazard class	3
Subsidiary hazard class	6.1
UN number	UN1992
Packing group	III
Additional information:	
Special provisions	16



IMDG

Basic shipping requirements:

Proper shipping name	FLAMMABLE LIQUID, TOXIC N.O.S. (Methanol)
Hazard class	3
Subsidiary hazard class	6.1
UN number	1992
Packing group	III



IATA

Basic shipping requirements:

Proper shipping name	Flammable liquid, n.o.s. (Methanol)
Hazard class	3
UN number	1993
Packing group	III



15. Regulatory Information

Labelling

Contains	EB-Butyl Cellosolve, Methanol
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US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

EB-Butyl Cellosolve	111-76-2	1.0 % de minimis concentration (applies to R-(OCH ₂ CH ₂) _n -OR', where n = 1,2, or 3, R=alkyl C7 or less, or R = phenyl or alkyl substituted phenyl, R' = H or alkyl C7 or less, or OR' consisting of carboxylic acid ester, sulfate, phosphate, nitrate, or sulfonate, Chemical Category N230)
Methanol	67-56-1	1.0 % de minimis concentration

U.S. - FDA - Direct Food Additives

EB-Butyl Cellosolve	111-76-2	21 CFR 173.315
Methanol	67-56-1	21 CFR 173.250

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical Yes

CERCLA (Superfund) reportable quantity

Methanol: 5000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

- Immediate Hazard - Yes
- Delayed Hazard - Yes
- Fire Hazard - Yes
- Pressure Hazard - No
- Reactivity Hazard - No

Section 302 extremely hazardous substance No

Section 311 hazardous chemical Yes

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
Europe	European Inventory of New and Existing Chemicals (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

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

International regulations

Canada - WHMIS - Ingredient Disclosure List

EB-Butyl Cellosolve	111-76-2	1 %
Methanol	67-56-1	1 %



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State regulations

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

U.S. - Massachusetts - Right To Know List

EB-Butyl Cellosolve	111-76-2	Present
Methanol	67-56-1	Present

U.S. - Minnesota - Hazardous Substance List

EB-Butyl Cellosolve	111-76-2	Skin
Methanol	67-56-1	Skin

U.S. - New Jersey - Right to Know Hazardous Substance List

EB-Butyl Cellosolve	111-76-2	sn 0275
Methanol	67-56-1	sn 1222

U.S. - Pennsylvania - RTK (Right to Know) List

EB-Butyl Cellosolve	111-76-2	Present
Methanol	67-56-1	Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

EB-Butyl Cellosolve	111-76-2	Toxic (skin)
Methanol	67-56-1	Toxic; Flammable

U.S. - Texas - Effects Screening Levels - Long Term

EB-Butyl Cellosolve	111-76-2	5 ppb ESL; 24 µg/m3 ESL
Methanol	67-56-1	200 ppb ESL; 262 µg/m3 ESL

U.S. - Texas - Effects Screening Levels - Short Term

EB-Butyl Cellosolve	111-76-2	50 ppb ESL; 240 µg/m3 ESL
Methanol	67-56-1	2000 ppb ESL; 2620 µg/m3 ESL

16. Other Information

HMIS® ratings

Health: 1*
Flammability: 2
Physical hazard: 0

NFPA ratings

Health: 1
Flammability: 2
Instability: 0

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Disclaimer

THIS PRODUCT'S HEALTH AND SAFETY INFORMATION IS PROVIDED TO ASSIST OUR CUSTOMERS IN ASSESSING COMPLIANCE WITH HEALTH, SAFETY AND ENVIRONMENTAL REGULATIONS. THE INFORMATION CONTAINED HEREIN IS BASED ON DATA AVAILABLE TO US, AND IS BELIEVED TO BE ACCURATE, ALTHOUGH NO GUARANTEE OR WARRANTY IS PROVIDED OR IMPLIED BY THE COMPANY IN THIS RESPECT. SINCE THE USE OF THIS PRODUCT IS WITHIN THE EXCLUSIVE CONTROL OF THE USER, IT IS THE USER'S RESPONSIBILITY TO DETERMINE THE CONDITIONS OF SAFE USE. SUCH CONDITIONS MUST COMPLY WITH ALL GOVERNMENTAL REGULATIONS.

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