



### 3. Composition/information on ingredients

#### Mixtures

Chemical name	Common name and synonyms	CAS number	%
Petroleum Distillates, Hydrotreated Light		64742-47-8	90-100
2-Butoxyethanol		111-76-2	0.1-10
Non-hazardous and other components below reportable levels			0.1-10

\*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

#### 4. First-aid measures

<b>Inhalation</b>	If overexposure to vapors or mist, move to fresh air. Call a physician if breathing becomes difficult.
<b>Skin contact</b>	Take off immediately all contaminated clothing. Wash off with soap and plenty of water. Call a POISON CENTER or doctor/physician if you feel unwell. Get medical attention if irritation develops and persists.
<b>Eye contact</b>	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without advice from poison control center. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically. In case of shortness of breath, give oxygen. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General information</b>	Take off immediately all contaminated clothing. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse.

#### 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Dry chemicals. Carbon dioxide (CO <sub>2</sub> ).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	The product is combustible, and heating may generate vapors which may form explosive vapor/air mixtures. During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment/instructions</b>	In case of fire and/or explosion do not breathe fumes. Move containers from fire area if you can do so without risk. Cool containers exposed to heat with water spray and remove container, if no risk is involved.
<b>Specific methods</b>	Use standard firefighting procedures and consider the hazards of other involved materials.
<b>General fire hazards</b>	Combustible liquid.

#### 6. Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Immediately evacuate personnel to safe areas. Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Keep combustibles (wood, paper, oil, etc.) away from spilled material. This product is miscible in water.  Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.  Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.  Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions**

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

**7. Handling and storage****Precautions for safe handling**

Keep away from open flames, hot surfaces and sources of ignition. Do not get this material in contact with skin. Do not taste or swallow. Avoid contact with eyes. Avoid prolonged or repeated contact with skin. Avoid prolonged exposure. Avoid contact with clothing. Use only in well-ventilated areas. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. When using, do not eat, drink or smoke. Wash hands thoroughly after handling. Wash contaminated clothing before reuse. Avoid release to the environment. Do not empty into drains.

**Conditions for safe storage, including any incompatibilities**

Keep away from heat and sources of ignition. Store in original tightly closed container. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS). Keep in an area equipped with sprinklers.

**8. Exposure controls/personal protection****Occupational exposure limits****U.S. - OSHA****Components**

Components	Type	Value	Form
Petroleum Distillates, Hydrotreated Light (CAS 64742-47-8)	TWA	500 ppm	Vapor

**US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)****Components**

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	PEL	240 mg/m <sup>3</sup> 50 ppm

**ACGIH****Components**

Components	Type	Value	Form
Petroleum Distillates, Hydrotreated Light (CAS 64742-47-8)	TWA	100 ppm	Vapor

**US. ACGIH Threshold Limit Values****Components**

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	20 ppm

**US. NIOSH: Pocket Guide to Chemical Hazards****Components**

Components	Type	Value
2-Butoxyethanol (CAS 111-76-2)	TWA	24 mg/m <sup>3</sup> 5 ppm

**Biological limit values****ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
2-Butoxyethanol (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

\* - For sampling details, please see the source document.

**Exposure guidelines****US - California OELs: Skin designation**

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**US - Minnesota Haz Subs: Skin designation applies**

2-Butoxyethanol (CAS 111-76-2) Skin designation applies.

**US - Tennessee OELs: Skin designation**

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**US NIOSH Pocket Guide to Chemical Hazards: Skin designation**

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

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

2-Butoxyethanol (CAS 111-76-2) Can be absorbed through the skin.

**Appropriate engineering controls** Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

**Individual protection measures, such as personal protective equipment**

**Eye/face protection** Wear eye/face protection. Wear safety glasses with side shields (or goggles).

**Hand protection** Wear protective gloves.

**Skin protection**

**Other** Wear appropriate chemical resistant clothing.

**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.

**General hygiene considerations** When using, do not eat, drink or smoke. 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** Clear.

**Physical state** Liquid.

**Form** Liquid.

**Color** Colorless.

**Odor** Typical Solvent.

**Odor threshold** Not available.

**pH** Not available.

**Melting point/freezing point** N.D. estimated

**Initial boiling point and boiling range** 336.2 °F (169 °C) estimated

**Flash point** 142.0 °F (61.1 °C) (Lowest flashing component) estimated

**Evaporation rate** < 1 (Butyl Acetate = 1)

**Flammability (solid, gas)** Not available.

**Upper/lower flammability or explosive limits**

**Flammability limit - lower (%)** 0.8 % estimated

**Flammability limit - upper (%)** 10.6 % estimated

**Explosive limit - lower (%)** Not available.

**Explosive limit - upper (%)** Not available.

**Vapor pressure** 0.69 hPa 1 hPa = 0.75006 mmHg estimated

**Vapor pressure temp.** @ 20 Deg. C

**Vapor density** > 1 (Air = 1)

**Relative density** Not available.

**Solubility(ies)**

**Solubility (water)** Emulsifiable.

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

**Auto-ignition temperature** N.D. estimated

**Decomposition temperature** Not available.

**Viscosity** Not available.

**Other information**

**Percent volatile** 97.07 % estimated

**Pounds per gallon** 6.77 lb/gal

**Specific gravity** 0.81

**VOC (Weight %)** 97.07 % estimated

## 10. Stability and reactivity

<b>Reactivity</b>	The product is stable and non-reactive under normal conditions of use, storage and transport.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No hazardous reaction known under normal conditions of use.
<b>Conditions to avoid</b>	Avoid heat, sparks, open flames and other ignition sources. Suitable precautions should be utilized if using this product at temperatures above the flash point. Contact with incompatible materials.
<b>Incompatible materials</b>	Strong oxidizers and strong acids.
<b>Hazardous decomposition products</b>	No hazardous decomposition products are known if stored and applied as directed.

## 11. Toxicological information

### Information on likely routes of exposure

<b>Ingestion</b>	Harmful if swallowed.
<b>Inhalation</b>	Prolonged inhalation may be harmful.
<b>Skin contact</b>	Toxic in contact with skin.

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.

**Eye contact** Direct contact with eyes may cause temporary irritation.

**Symptoms related to the physical, chemical and toxicological characteristics** Direct contact with eyes may cause temporary irritation.

### Information on toxicological effects

**Acute toxicity** Toxic in contact with skin. Harmful if swallowed. Expected to be a low hazard for usual industrial or commercial handling by trained personnel.

Components	Species	Test Results
2-Butoxyethanol (CAS 111-76-2)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Rabbit	400 mg/kg
<i>Inhalation</i>		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	1.2 g/kg
	Mouse	1.2 g/kg
	Rabbit	0.32 g/kg
	Rat	560 mg/kg
<i>Other</i>		
LD50	Mouse	1130 mg/kg
	Rabbit	280 mg/kg
	Rat	340 mg/kg

\* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** Prolonged skin contact may cause temporary irritation.

**Serious eye damage/eye irritation** Direct contact with eyes may cause temporary irritation.

### Respiratory or skin sensitization

**Respiratory sensitization** Not available.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

## IARC Monographs. Overall Evaluation of Carcinogenicity

2-Butoxyethanol (CAS 111-76-2)

3 Not classifiable as to carcinogenicity to humans.

## US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.
<b>Specific target organ toxicity - single exposure</b>	Not classified.
<b>Specific target organ toxicity - repeated exposure</b>	Not classified.
<b>Aspiration hazard</b>	Not available.
<b>Chronic effects</b>	Prolonged inhalation may be harmful. May be harmful if absorbed through skin.  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.

## 12. Ecological information

**Ecotoxicity** Toxic to aquatic life with long lasting effects. Accumulation in aquatic organisms is expected.

Components	Species	Test Results
2-Butoxyethanol (CAS 111-76-2)		
<b>Aquatic</b>		
Fish	LC50 Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours
Petroleum Distillates, Hydrotreated Light (CAS 64742-47-8)		
<b>Aquatic</b>		
Fish	LC50 Rainbow trout,donaldson trout (Oncorhynchus mykiss)	2.9 mg/l, 96 hours

\* Estimates for product may be based on additional component data not shown.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

### Partition coefficient n-octanol / water (log Kow)

2-Butoxyethanol 0.83

**Mobility in soil** No data available.

**Other adverse effects** No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## 13. Disposal considerations

**Disposal instructions** Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Local disposal regulations** Dispose in accordance with all applicable regulations.

**Waste from residues / unused products** Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging** Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## 14. Transport information

### DOT BULK

<b>UN number</b>	NA1993
<b>Proper shipping name</b>	Compounds, Cleaning Liquid (Petroleum Distillates, Ethylene Glycol Monobutyl Ether)
<b>Hazard class</b>	Combustible Liquid
<b>Packing group</b>	III
<b>ERG code</b>	128

### DOT NON-BULK

Not regulated as dangerous goods.

## 15. Regulatory information

**US federal regulations** This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.

### CERCLA Hazardous Substance List (40 CFR 302.4)

2-Butoxyethanol (CAS 111-76-2) Listed.

### US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

### 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

### SARA 302 Extremely hazardous substance

Not listed.

**SARA 311/312** Yes

### Hazardous chemical

### SARA 313 (TRI reporting)

Chemical name	CAS number	% by wt.
2-Butoxyethanol	111-76-2	0.1-10
Ethylene Glycol	107-21-1	0.1-10

### Other federal regulations

#### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

#### Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

**Safe Drinking Water Act (SDWA)** Not regulated.

### US state regulations

#### US. Massachusetts RTK - Substance List

2-Butoxyethanol (CAS 111-76-2)

#### US. New Jersey Worker and Community Right-to-Know Act

2-Butoxyethanol (CAS 111-76-2) 500 LBS

#### US. Pennsylvania RTK - Hazardous Substances

2-Butoxyethanol (CAS 111-76-2)

#### US. Rhode Island RTK

2-Butoxyethanol (CAS 111-76-2)

#### US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

### International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes

<b>Country(s) or region</b>	<b>Inventory name</b>	<b>On inventory (yes/no)*</b>
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

\*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)  
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## 16. Other information, including date of preparation or last revision

**Issue date** 11-05-2014

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**Revision Information** Composition / Information on Ingredients: Disclosure Overrides  
Physical & Chemical Properties: Multiple Properties  
Transport Information: Material Transportation Information  
Regulatory Information: United States