



# SAFETY DATA SHEET

## 1. Product and Company Identification

<b>Product identifier</b>	<b>Blackhawk Foaming Coil Cleaner (4127-75)</b>
<b>Other means of identification</b>	Not available
<b>Recommended use</b>	Cleaner
<b>Recommended restrictions</b>	None known.
<b>Manufacturer information</b>	Nu-Calgon 2611 Schuetz Road St. Louis, MO 63043 US Phone: 314-469-7000 / 800-554-5499 Emergency Phone: 1-800-424-9300 (CHEMTREC)
<b>Supplier</b>	See above.

## 2. Hazards Identification

<b>Physical hazards</b>	Gases under pressure	Liquefied gas
<b>Health hazards</b>	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, repeated exposure	Category 2
<b>Environmental hazards</b>	Not classified.	
<b>WHMIS 2015 defined hazards</b>	Not classified	
<b>Label elements</b>		



**Signal word** Danger

**Hazard statement** Contains gas under pressure; may explode if heated. Causes serious eye damage. May cause damage to organs through prolonged or repeated exposure.

**Precautionary statement**

**Prevention** Wear eye protection/face protection. Do not breathe mist or vapor.

**Response** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor. Get medical advice/attention if you feel unwell.

**Storage** Protect from sunlight. Store in a well-ventilated place.

**Disposal** Dispose of waste and residues in accordance with local authority requirements.

**WHMIS 2015: Health Hazard(s) not otherwise classified (HHNOC)** None known

**WHMIS 2015: Physical Hazard(s) not otherwise classified (PHNOC)** None known

**Hazard(s) not otherwise classified (HNOC)** None known.

**Supplemental information** Not applicable.

## 3. Composition/Information on Ingredients

### Mixture

Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	1-5
Diethylene glycol monoethyl ether		111-90-0	1-5
Ethanol, 2-butoxy-		111-76-2	1-5
Propane		74-98-6	1-5
Sodium lauryl sulfate		151-21-3	1-5

Chemical name	Common name and synonyms	CAS number	%
Tetrasodium ethylenediamine tetraacetate		64-02-8	1-5
Sodium metasilicate		6834-92-0	0.1-1
Sodium nitrite		7632-00-0	0.1-1

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

#### 4. First Aid Measures

<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Eye contact</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/doctor.
<b>Ingestion</b>	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
<b>Most important symptoms/effects, acute and delayed</b>	Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
<b>Indication of immediate medical attention and special treatment needed</b>	Provide general supportive measures and treat symptomatically.
<b>General information</b>	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

#### 5. Fire Fighting Measures

<b>Suitable extinguishing media</b>	Alcohol foam. Carbon dioxide. Dry chemical. Foam.
<b>Unsuitable extinguishing media</b>	None known.
<b>Specific hazards arising from the chemical</b>	Contents under pressure.
<b>Special protective equipment and precautions for firefighters</b>	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
<b>Fire-fighting equipment/instructions</b>	In case of fire: Stop leak if safe to do so. Do not move cargo or vehicle if cargo has been exposed to heat. Move containers from fire area if you can do so without risk. Use water spray to cool unopened containers. Containers should be cooled with water to prevent vapor pressure build up. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out.
<b>Specific methods</b>	Cool containers exposed to flames with water until well after the fire is out.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon.

#### 6. Accidental Release Measures

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep unnecessary personnel away. Keep out of low areas. Keep people away from and upwind of spill/leak. 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>	Refer to attached safety data sheets and/or instructions for use. 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. Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Isolate area until gas has dispersed. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. For waste disposal, see section 13 of the SDS.
<b>Environmental precautions</b>	Avoid discharge into drains, water courses or onto the ground.

#### 7. Handling and Storage

<b>Precautions for safe handling</b>	Pressurized container: Do not pierce or burn, even after use. Do not use if spray button is missing or defective. Do not spray on a naked flame or any other incandescent material. Do not smoke while using or until sprayed surface is thoroughly dry. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not get this material in contact with eyes. Do not get this material in contact with skin. Avoid prolonged exposure. Use only in well-ventilated areas. Wear appropriate personal protective equipment.
<b>Conditions for safe storage, including any incompatibilities</b>	Contents under pressure. Do not expose to heat or store at temperatures above 120°F/49°C as can may burst. Do not puncture, incinerate or crush. Do not handle or store near an open flame, heat or other sources of ignition. 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).

## 8. Exposure Controls/Personal Protection

### Occupational exposure limits

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

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1000 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m3 20 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm

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

Components	Type	Value
Butane (CAS 106-97-8)	STEL TWA	750 ppm 600 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm

#### Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm

#### Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Butane (CAS 106-97-8)	TWA	800 ppm
Diethylene glycol monoethyl ether (CAS 111-90-0)	TWA	165 mg/m3 30 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm
Propane (CAS 74-98-6)	TWA	1000 ppm

#### Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3 800 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m3 20 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm

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

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	PEL	240 mg/m3 50 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

#### US. ACGIH Threshold Limit Values

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	20 ppm

#### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1900 mg/m3

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

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	800 ppm
		24 mg/m3
Propane (CAS 74-98-6)	TWA	5 ppm
		1800 mg/m3
		1000 ppm

**US. AIHA Workplace Environmental Exposure Level (WEEL) Guides**

Components	Type	Value
Diethylene glycol monoethyl ether (CAS 111-90-0)	TWA	140 mg/m3
		25 ppm

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

Components	Value	Determinant	Specimen	Sampling Time
Ethanol, 2-butoxy- (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. NIOSH: Pocket Guide to Chemical Hazards**

Ethanol, 2-butoxy- (CAS 111-76-2) Can be absorbed through the skin.

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

Ethanol, 2-butoxy- (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 safety glasses with side shields (or goggles).

**Skin protection**

**Hand protection** Impervious gloves. Confirm with reputable supplier first.

**Other** Wear suitable protective clothing.

**Respiratory protection**

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Respirator should be selected by and used under the direction of a trained health and safety professional following requirements found in OSHA's respirator standard (29 CFR 1910.134), CAN/CSA-Z94.4 and ANSI's standard for respiratory protection (Z88.2).

**Thermal hazards**

Not applicable.

**General hygiene considerations**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and immediately after handling the product.

**9. Physical and Chemical Properties**

<b>Appearance</b>	Compressed liquefied gas
<b>Physical state</b>	Gas.
<b>Form</b>	Liquefied gas.
<b>Color</b>	Clear
<b>Odor</b>	Not available.
<b>Odor threshold</b>	Not available.
<b>pH</b>	12.3
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	Not available.
<b>Pour point</b>	Not available.
<b>Specific gravity</b>	Not available.
<b>Partition coefficient (n-octanol/water)</b>	Not available
<b>Flash point</b>	Not available.

Evaporation rate	Not available
Flammability (solid, gas)	Not applicable.
<b>Upper/lower flammability or explosive limits</b>	
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	80 psig @ 70°F
Vapor density	Not available
Relative density	Not available.
Solubility(ies)	Not available
Auto-ignition temperature	Not available
Decomposition temperature	Not available.
Viscosity	Not available.
<b>Other information</b>	
Flash point class	Not Flammable as per testing under UN Manual of Tests and Criteria Part 3, Section 31.5

## 10. Stability and Reactivity

Reactivity	Reacts vigorously with acids.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Reacts violently with strong acids. This product may react with oxidizing agents. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
	Not corrosive to SAE 1020 Steel or non-clad Aluminum based on test data (UN Manual of Tests and Criteria, Part III, Section 37.1 -Corrosion to metals).
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

## 11. Toxicological Information

Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
<b>Information on likely routes of exposure</b>	
Ingestion	Not available.
Inhalation	Prolonged inhalation may be harmful.
Skin contact	Not corrosive to skin based on in-vitro test data (OECD Guideline 435 - Corrositex®).
Eye contact	Causes serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
<b>Information on toxicological effects</b>	
<b>Acute toxicity</b>	

Components	Species	Test Results
Butane (CAS 106-97-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Mouse	539600 ppm, 120 Minutes, ECHA
		520400 ppm, 120 Minutes, ECHA
		1237 mg/L, 120 Minutes
		680 mg/L, 2 Hours, HSDB
		57 %, 120 Minutes, ECHA

Components	Species	Test Results
		52 %, 120 Minutes
	Rat	> 800000 ppm, 10 Minutes, ECHA
		1442738 mg/m3, 10 Minutes, ECHA
		1354944 mg/m3, 10 Minutes, ECHA
		570000 ppm, 10 Minutes, ECHA
		276000 ppm, 4 Hours, CCOHS
		1443 mg/L, 10 Minutes, ECHA
		1355 mg/L, 10 Minutes
<i>Oral</i> LD50	Not available	
Diethylene glycol monoethyl ether (CAS 111-90-0)		
<b>Acute</b>		
<i>Dermal</i> LD50	Guinea pig	10500 mg/kg, Days, ECHA
		5900 mg/kg
		5900 mg/kg, Days, ECHA
	Mouse	6000 mg/kg, HSDB
	Rabbit	11176 mg/kg, 24 Hours, ECHA
		9143 mg/kg, 24 Hours, ECHA
		8500 mg/kg, 2 Hours, ECHA
		8476 mg/kg, 24 Hours, ECHA
		7714 mg/kg, ECHA
	Rat	6000 mg/kg, HSDB
<i>Inhalation</i> LC50	Rat	5240 mg/l/4h, TCI America
<i>Oral</i> LD50	Guinea pig	4970 mg/kg, ECHA
	Mouse	7863 mg/kg
		6031 mg/kg, ECHA
	Rabbit	5600 mg/kg, ECHA
		3620 mg/kg
	Rat	< 5 mg/kg, ECHA
		> 5000 mg/kg
		15918 mg/kg, ECHA
		10502 mg/kg, ECHA
		9740 mg/kg, ECHA
		8690 mg/kg, ECHA
		7300 mg/kg, ECHA
		6429 mg/kg, ECHA
		1920 mg/kg, HSDB
		5.4 ml/kg, ECHA
Ethanol, 2-butoxy- (CAS 111-76-2)		
<b>Acute</b>		
<i>Dermal</i> LD50	Guinea pig	7.3 ml/kg, 4 Days
		0.3 ml/kg, 24 Hours, ECHA
		0.2 ml/kg, 24 Hours
	Rabbit	> 2000 mg/kg, 24 Hours, ECHA

Components	Species	Test Results
<i>Inhalation</i> LC50	Rat	1060 mg/kg, 24 Hours, ECHA
		841 mg/kg, 24 Hours, ECHA
		667 mg/kg, 24 Hours, ECHA
	Mouse	560 ml/kg, 24 Hours, ECHA
		450 ml/kg, 24 Hours, ECHA
		435 mg/kg, 24 Hours
	Rabbit	400 mg/kg, HSDB
		0.7 ml/kg, 24 Hours
		0.6 ml/kg
	Rat	> 2000 mg/kg, 24 Hours
	Mouse	700 ppm, 7 Hours
		400 ppm, 7 Hours
		> 900 ppm, ECHA
	Rabbit	> 800 ppm, 4 Hours, ECHA
		900 ppm, ECHA
		800 ppm, 4 Hours, ECHA
	Rat	486 ppm, 4 Hours, ECHA
		450 ppm, 4 Hours
		400 ppm, 7 hours, ECHA
<i>Oral</i> LD50	Dog	2 mg/L, 7 hours, ECHA
	Guinea pig	> 695 mg/kg
		1414 mg/kg
		1200 mg/kg, ECHA
	Mouse	1.2 g/kg
		2005 mg/kg, ECHA
		1519 mg/kg
	Rabbit	1200 mg/kg, HSDB
		320 mg/kg, HMIRA
		1000 - 2000 mg/kg, ECHA
	Rat	560 - 3000 mg/kg, ECHA
		530 - 2800 mg/kg
		2600 mg/kg, ECHA
		2420 mg/kg, ECHA
		1746 mg/kg
		1480 mg/kg, ECHA
		880 mg/kg, ECHA
		615 mg/kg, ECHA
Propane (CAS 74-98-6) <b>Acute</b> <i>Dermal</i> LD50 <i>Inhalation</i> LC50	Not available	
	Mouse	539600 ppm, 120 Minutes, ECHA
		520400 ppm, 120 Minutes, ECHA
		1237 mg/L, 120 Minutes
		57 %, 120 Minutes, ECHA

Components	Species	Test Results
		52 %, 120 Minutes
	Rat	> 12000000 ppm, 4 hours
		> 800000 ppm, 10 Minutes, ECHA
		> 1464 mg/L, 15 Minutes, HSDB
		1442738 mg/m3, 10 Minutes, ECHA
		1354944 mg/m3, 10 Minutes, ECHA
		570000 ppm, 10 Minutes, ECHA
		1355 mg/L, 10 Minutes
<i>Oral</i> LD50	Not available	
Sodium lauryl sulfate (CAS 151-21-3)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rabbit	> 500 mg/kg, 24 Hours
		580 mg/kg
	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i> LC50	Rat	> 3900 mg/m3, 1 hr
<i>Oral</i> LD50	Rat	1288 mg/kg
		977 mg/kg
Sodium metasilicate (CAS 6834-92-0)		
<b>Acute</b>		
<i>Dermal</i> LD50	Rat	> 5000 mg/kg, 24 Hours
<i>Inhalation</i> LC50	Rat	> 2.1 mg/L, 4 Hours
<i>Oral</i> LD50	Mouse	770 - 820 mg/kg, ECHA
		666.7 - 1008.6 mg/kg, ECHA
		2400 mg/kg, Patty's Industrial Hygiene and Toxicology
		770 - 820 mg/kg, ECHA
		666.7 - 1008.6 mg/kg, ECHA
		661.5 - 896.3 mg/kg
	Rat	1189.6 - 1530 mg/kg, ECHA
		1152 - 1349 mg/kg, ECHA
		1280 mg/kg, Patty's Industrial Hygiene and Toxicology
		1189.6 - 1530 mg/kg, ECHA
		1152 - 1349 mg/kg, ECHA
		994.7 - 1335.9 mg/kg
Sodium nitrite (CAS 7632-00-0)		
<b>Acute</b>		
<i>Dermal</i> LD50	Not available	
<i>Inhalation</i> LC50	Rat	5.5 mg/L, 4 Hours, HSDB
<i>Oral</i> LD50	Mouse	175 mg/kg, HSDB



Components	Species	Test Results
	Rabbit	186 mg/kg, HSDB
	Rat	180 mg/kg, ECHA
		85 mg/kg, HSDB
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)		
<b>Acute</b>		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Rat	> 2000 mg/kg, HSDB
		3200 mg/kg, ECHA
		2700 mg/kg, ECHA
		2581 mg/kg, ECHA
		2150 mg/kg, ECHA
		1913 mg/kg, ECHA
		1780 mg/kg, ECHA
		1700 mg/kg, ECHA
		1658 mg/kg, LOLI
<b>Skin corrosion/irritation</b>	Not corrosive to skin based on in-vitro test data (OECD Guideline 435 - Corrositex®).	
<b>Exposure minutes</b>	Not available.	
<b>Erythema value</b>	Not available.	
<b>Oedema value</b>	Not available.	
<b>Serious eye damage/eye irritation</b>	Causes serious eye damage.	
<b>Corneal opacity value</b>	Not available.	
<b>Iris lesion value</b>	Not available.	
<b>Conjunctival reddening value</b>	Not available.	
<b>Conjunctival oedema value</b>	Not available.	
<b>Recover days</b>	Not available.	
<b>Respiratory or skin sensitization</b>		
<b>Canada - Alberta OELs: Irritant</b>		
Ethanol, 2-butoxy- (CAS 111-76-2)	Irritant	
<b>Respiratory sensitization</b>	Not available.	
<b>Skin sensitization</b>	This product is not expected to cause skin sensitization.	
<b>Mutagenicity</b>	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.	
<b>Carcinogenicity</b>	This product is not considered to be a carcinogen by IARC, NTP, or OSHA.	
<b>ACGIH Carcinogens</b>		
Ethanol, 2-butoxy- (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.	
<b>Canada - Manitoba OELs: carcinogenicity</b>		
2-BUTOXYETHANOL (EGBE) (CAS 111-76-2)	Confirmed animal carcinogen with unknown relevance to humans.	
<b>IARC Monographs. Overall Evaluation of Carcinogenicity</b>		
Ethanol, 2-butoxy- (CAS 111-76-2)	Volume 88 - 3 Not classifiable as to carcinogenicity to humans.	
<b>US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)</b>		
Not listed.		
<b>Reproductive toxicity</b>	This product is not expected to cause reproductive or developmental effects.	
<b>Teratogenicity</b>	Not available.	
<b>Specific target organ toxicity - single exposure</b>	Not classified.	

<b>Specific target organ toxicity - repeated exposure</b>	May cause damage to organs through prolonged or repeated exposure.
<b>Aspiration hazard</b>	Not likely, due to the form of the product.
<b>Chronic effects</b>	Prolonged inhalation may be harmful.

## 12. Ecological Information

<b>Ecotoxicity</b>	See below		
<b>Ecotoxicological data</b>			
<b>Components</b>		<b>Species</b>	<b>Test Results</b>
Diethylene glycol monoethyl ether (CAS 111-90-0)			
Crustacea	EC50	Daphnia	4305 mg/L, 48 Hours
<b>Aquatic</b>			
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	> 10000 mg/L, 96 hours
Ethanol, 2-butoxy- (CAS 111-76-2)			
Crustacea	EC50	Daphnia	1819 mg/L, 48 Hours
<b>Aquatic</b>			
Fish	LC50	Inland silverside ( <i>Menidia beryllina</i> )	1250 mg/L, 96 hours
Sodium lauryl sulfate (CAS 151-21-3)			
Algae	IC50	Algae	53 mg/L, 72 Hours
Crustacea	EC50	Daphnia	1.8 mg/L, 48 Hours
<b>Aquatic</b>			
Fish	LC50	Carp, hawk fish ( <i>Cirrhinus mrigala</i> )	1.36 mg/L, 96 hours
Sodium metasilicate (CAS 6834-92-0)			
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Ceriodaphnia dubia</i> )	0.28 - 0.57 mg/L, 48 hours
Fish	LC50	Western mosquitofish ( <i>Gambusia affinis</i> )	1800 mg/L, 96 hours
Sodium nitrite (CAS 7632-00-0)			
<b>Aquatic</b>			
Crustacea	EC50	Greasyback shrimp ( <i>Metapenaeus ensis</i> )	16.14 - 26.61 mg/L, 48 hours
Fish	LC50	Rainbow trout, donaldson trout ( <i>Oncorhynchus mykiss</i> )	0.15 - 0.25 mg/L, 96 hours
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)			
Algae	EC50	Algae	1.01 mg/L, 72 Hours
<b>Aquatic</b>			
Crustacea	EC50	Water flea ( <i>Daphnia magna</i> )	610 mg/L, 24 hours
Fish	LC50	Bluegill ( <i>Lepomis macrochirus</i> )	472 - 500 mg/L, 96 hours
<b>Persistence and degradability</b>	No data is available on the degradability of this product.		
<b>Bioaccumulative potential</b>	No data available.		
<b>Mobility in soil</b>	No data available.		
<b>Mobility in general</b>	Not available.		
<b>Other adverse effects</b>	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

<b>Disposal instructions</b>	Consult authorities before disposal. Contents under pressure. Do not puncture, incinerate or crush. 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.
<b>Local disposal regulations</b>	Dispose in accordance with all applicable regulations.
<b>Hazardous waste code</b>	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
<b>Waste from residues / unused products</b>	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. Do not re-use empty containers.

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**14. Transport Information**

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**Transport of Dangerous Goods (TDG) Proof of Classification** In accordance with Part 2.2.1 (SOR/2014-152) of the Transportation of Dangerous Goods Regulations, we certify that the classification of this product is correct as of the SDS date of issue.

**U.S. Department of Transportation (DOT)****Basic shipping requirements:**

UN number	UN1950
Proper shipping name	Aerosols, non-flammable, (each not exceeding 1 L capacity)
Hazard class	Limited Quantity - US
Packaging exceptions	306
Packaging non bulk	None
Packaging bulk	None

**Transportation of Dangerous Goods (TDG - Canada)****Basic shipping requirements:**

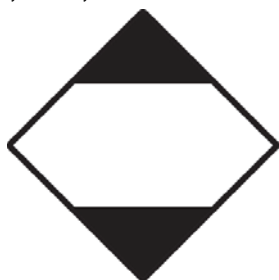
UN number	UN1950
Proper shipping name	AEROSOLS, non-flammable
Hazard class	Limited Quantity - Canada
Special provisions	80

**IATA/ICAO (Air)****Basic shipping requirements:**

UN number	UN1950
Proper shipping name	Aerosols, non-flammable
Hazard class	Limited Quantity - IATA
ERG code	2L

**IMDG (Marine Transport)****Basic shipping requirements:**

UN number	UN1950
Proper shipping name	AEROSOLS
Hazard class	Limited Quantity - US

**DOT; IMDG; TDG****IATA**

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**15. Regulatory Information**

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**Canadian federal regulations** This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (SOR/2015-17) and the SDS contains all the information required by the HPR.

**Canada CEPA Schedule I: Listed substance**

Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
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**Canada DSL Challenge Substances: Listed substance**

Butane (CAS 106-97-8)	Listed.
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**Canada NPRI VOCs with Additional Reporting Requirements: Mass reporting threshold/Identification Number**

Butane (CAS 106-97-8)	1 TONNES
Ethanol, 2-butoxy- (CAS 111-76-2)	1 TONNES

Propane (CAS 74-98-6) 1 TONNES

**Canada Priority Substances List (Second List): Listed substance**

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

**Export Control List (CEPA 1999, Schedule 3)**

Not listed.

**Greenhouse Gases**

Not listed.

**Precursor Control Regulations**

Not regulated.

**WHMIS 2015 Exemptions** Not applicable

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

**TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**

Not regulated.

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

Butane (CAS 106-97-8) Listed.

Diethylene glycol monoethyl ether (CAS 111-90-0) Listed.

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Propane (CAS 74-98-6) 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 - No  
Pressure Hazard - Yes  
Reactivity Hazard - No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

**SARA 313 (TRI reporting)**

Chemical name	CAS number	% by wt.
Diethylene glycol monoethyl ether	111-90-0	1-5
Ethanol, 2-butoxy-	111-76-2	1-5

**Other federal regulations**

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

Diethylene glycol monoethyl ether (CAS 111-90-0)

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

Butane (CAS 106-97-8)

Propane (CAS 74-98-6)

**Clean Water Act (CWA) Section 112(r) (40 CFR 68.130)** Hazardous substance

**US state regulations**

**US - California Hazardous Substances (Director's): Listed substance**

Butane (CAS 106-97-8) Listed.

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

**US - Illinois Chemical Safety Act: Listed substance**

Butane (CAS 106-97-8)

Diethylene glycol monoethyl ether (CAS 111-90-0)

Ethanol, 2-butoxy- (CAS 111-76-2)

Propane (CAS 74-98-6)

**US - Louisiana Spill Reporting: Listed substance**

Butane (CAS 106-97-8) Listed.

Diethylene glycol monoethyl ether (CAS 111-90-0) Listed.

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Propane (CAS 74-98-6) Listed.

**US - Minnesota Haz Subs: Listed substance**

Butane (CAS 106-97-8) Listed.

Diethylene glycol monoethyl ether (CAS 111-90-0) Listed.

Ethanol, 2-butoxy- (CAS 111-76-2) Listed.

Propane (CAS 74-98-6) Listed.

**US - New Jersey RTK - Substances: Listed substance**

Butane (CAS 106-97-8)  
 Diethylene glycol monoethyl ether (CAS 111-90-0)  
 Ethanol, 2-butoxy- (CAS 111-76-2)  
 Propane (CAS 74-98-6)

**US - Texas Effects Screening Levels Hazard Data: Simple asphyxiant**

Propane (CAS 74-98-6)

**US - Texas Effects Screening Levels: Listed substance**

Butane (CAS 106-97-8)	Listed.
Diethylene glycol monoethyl ether (CAS 111-90-0)	Listed.
Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Propane (CAS 74-98-6)	Listed.
Sodium lauryl sulfate (CAS 151-21-3)	Listed.
Sodium metasilicate (CAS 6834-92-0)	Listed.
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)	Listed.

**US. Massachusetts RTK - Substance List**

Butane (CAS 106-97-8)  
 Ethanol, 2-butoxy- (CAS 111-76-2)  
 Propane (CAS 74-98-6)

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

Butane (CAS 106-97-8)  
 Diethylene glycol monoethyl ether (CAS 111-90-0)  
 Ethanol, 2-butoxy- (CAS 111-76-2)  
 Propane (CAS 74-98-6)

**US. Pennsylvania Worker and Community Right-to-Know Law**

Butane (CAS 106-97-8)  
 Diethylene glycol monoethyl ether (CAS 111-90-0)  
 Ethanol, 2-butoxy- (CAS 111-76-2)  
 Propane (CAS 74-98-6)

**US. Rhode Island RTK**

Butane (CAS 106-97-8)  
 Ethanol, 2-butoxy- (CAS 111-76-2)  
 Propane (CAS 74-98-6)

**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.

**Inventory status**

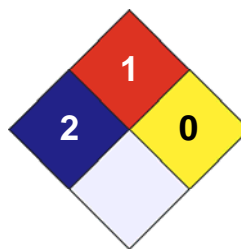
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

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

**16. Other Information**

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

HEALTH	*	2
FLAMMABILITY		1
PHYSICAL HAZARD		0
PERSONAL PROTECTION		X

**Disclaimer**

The information in the sheet was written based on the best knowledge and experience currently available. Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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01

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**Prepared by**  
**Other information**

Nu-Calgon Technical Service Phone: (314) 469-7000

For an updated SDS, please contact the supplier/manufacturee listed on the first page of the document.