

1. Product and Company Identification

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

2. Hazards Identification

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



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

Inhalation	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
Skin contact	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
Eye contact	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.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth.
Most important symptoms/effects, acute and delayed	Symptoms may include stinging, tearing, redness, swelling, and blurred vision.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically.
General information	Ensure that medical personnel are aware of the material(s) involved and take precautions to protect themselves.

5. Fire Fighting Measures

Suitable extinguishing media	Alcohol foam. Carbon dioxide. Dry chemical. Foam.
Unsuitable extinguishing media	None known.
Specific hazards arising from the chemical	Contents under pressure.
Special protective equipment and precautions for firefighters	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
Fire-fighting equipment/instructions	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.
Specific methods	Cool containers exposed to flames with water until well after the fire is out.
Hazardous combustion products	May include and are not limited to: Oxides of carbon.

6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures	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.
Methods and materials for containment and cleaning up	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.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.

7. Handling and Storage

Precautions for safe handling	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.
Conditions for safe storage, including any incompatibilities	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/m ³ 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/m ³ 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/m ³ 800 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	97 mg/m ³ 20 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m ³ 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/m ³ 50 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m ³ 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/m ³

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	800 ppm
		24 mg/m ³
Propane (CAS 74-98-6)	TWA	5 ppm
		1800 mg/m ³
		1000 ppm

US. AIHA Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Diethylene glycol monoethyl ether (CAS 111-90-0)	TWA	140 mg/m ³
		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

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

Evaporation rate	Not available
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or explosive limits	
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.
Other information	
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.
Information on likely routes of exposure	
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.

Information on toxicological effects

Acute toxicity

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
<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
	Rat	52 %, 120 Minutes > 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)		
Acute		
<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)		
Acute		
<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
		1060 mg/kg, 24 Hours, ECHA
		841 mg/kg, 24 Hours, ECHA
		667 mg/kg, 24 Hours, ECHA
		560 ml/kg, 24 Hours, ECHA
		450 ml/kg, 24 Hours, ECHA
		435 mg/kg, 24 Hours
		400 mg/kg, HSDB
		0.7 ml/kg, 24 Hours
		0.6 ml/kg
	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Mouse	700 ppm, 7 Hours
	Rabbit	400 ppm, 7 Hours
	Rat	> 900 ppm, ECHA
		> 800 ppm, 4 Hours, ECHA
		900 ppm, ECHA
		800 ppm, 4 Hours, ECHA
		486 ppm, 4 Hours, ECHA
		450 ppm, 4 Hours
		400 ppm, 7 hours, ECHA
		2 mg/L, 7 hours, ECHA
<i>Oral</i>		
LD50	Dog	> 695 mg/kg
	Guinea pig	1414 mg/kg
		1200 mg/kg, ECHA
		1.2 g/kg
	Mouse	2005 mg/kg, ECHA
		1519 mg/kg
		1200 mg/kg, HSDB
	Rabbit	320 mg/kg, HMIRA
	Rat	1000 - 2000 mg/kg, ECHA
		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)		
Acute		
<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
		57 %, 120 Minutes, ECHA

Components	Species	Test Results
	Rat	52 %, 120 Minutes > 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)		
Acute		
<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)		
Acute		
<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)		
Acute		
<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)		
Acute		
<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
Skin corrosion/irritation	Not corrosive to skin based on in-vitro test data (OECD Guideline 435 - Corrositex®).	
Exposure minutes	Not available.	
Erythema value	Not available.	
Oedema value	Not available.	
Serious eye damage/eye irritation	Causes serious eye damage.	
Corneal opacity value	Not available.	
Iris lesion value	Not available.	
Conjunctival reddening value	Not available.	
Conjunctival oedema value	Not available.	
Recover days	Not available.	
Respiratory or skin sensitization		
Canada - Alberta OELs: Irritant		
Ethanol, 2-butoxy- (CAS 111-76-2)		Irritant
Respiratory sensitization	Not available.	
Skin sensitization	This product is not expected to cause skin sensitization.	
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, NTP, or OSHA.	
ACGIH Carcinogens		
Ethanol, 2-butoxy- (CAS 111-76-2)		A3 Confirmed animal carcinogen with unknown relevance to humans.
Canada - Manitoba OELs: carcinogenicity		
2-BUTOXYETHANOL (EGBE) (CAS 111-76-2)		Confirmed animal carcinogen with unknown relevance to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity		
Ethanol, 2-butoxy- (CAS 111-76-2)		Volume 88 - 3 Not classifiable as to carcinogenicity to humans.
US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)		
Not listed.		
Reproductive toxicity	This product is not expected to cause reproductive or developmental effects.	
Teratogenicity	Not available.	
Specific target organ toxicity - single exposure	Not classified.	

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

12. Ecological Information

Ecotoxicity	See below		
Ecotoxicological data			
Components		Species	Test Results
Diethylene glycol monoethyl ether (CAS 111-90-0)			
Crustacea	EC50	Daphnia	4305 mg/L, 48 Hours
Aquatic			
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
Aquatic			
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
Aquatic			
Fish	LC50	Carp, hawk fish (<i>Cirrhinus mrigala</i>)	1.36 mg/L, 96 hours
Sodium metasilicate (CAS 6834-92-0)			
Aquatic			
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)			
Aquatic			
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
Aquatic			
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
Persistence and degradability	No data is available on the degradability of this product.		
Bioaccumulative potential	No data available.		
Mobility in soil	No data available.		
Mobility in general	Not 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	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.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
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. Do not re-use empty containers.

14. Transport Information

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:**

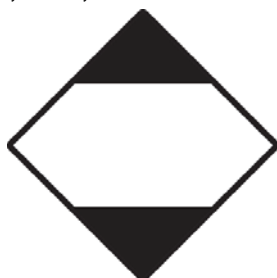
UN number	UN1950
Proper shipping name	AEROSOLS, non-flammable
Hazard class	Limited Quantity - Canada
Special provisions	80

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**

15. Regulatory Information

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

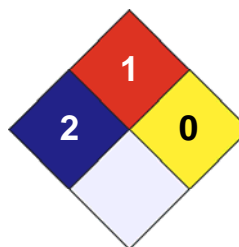
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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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Prepared by
Other information

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

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