SAFETY DATA SHEET

Sid Harvey item # 4171-75 SDS # Z0219

1. Product and Company Identification

Product identifier	**Evap Foam No Rinse-Aerosol (4171-75)**
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/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	750 ppm
	TWA	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
		800 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	24 mg/m3
		5 ppm
Propane (CAS 74-98-6)	TWA	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

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	Not available.
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		
Dermal		
LD50	Not available	
Inhalation		
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
Oral		
LD50	Not available	

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

Acute		
Dermal		
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
Inhalation		
LC50	Rat	5240 mg/l/4h, TCI America
Oral		
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		
Dermal		
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
Inhalation		
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
Oral		
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		
Dermal		
LD50	Not available	
Inhalation		
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
		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
Oral		
LD50	Not available	
Sodium lauryl sulfate (CAS 151-21-3)		
Acute		
Dermal		
LD50	Rabbit	> 500 mg/kg, 24 Hours
		580 mg/kg
	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 3900 mg/m3, 1 hr
Oral		
LD50	Rat	1288 mg/kg
		977 mg/kg
Sodium metasilicate (CAS 6834-92-0)		
Acute		
Dermal		
LD50	Rat	> 5000 mg/kg, 24 Hours
Inhalation		
LC50	Rat	> 2.1 mg/L, 4 Hours
Oral		
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		
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	5.5 mg/L, 4 Hours, HSDB
Oral		
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

Dermal

LD50 Not available

Inhalation

LC50 Not available

Oral

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 (Lepomis macrochirus)	> 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 (Menidia beryllina)	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 (Cirrhinus mrigala)	1.36 mg/L, 96 hours
Sodium metasilicate (CAS 6834-92-0)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.28 - 0.57 mg/L, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	1800 mg/L, 96 hours
Sodium nitrite (CAS 7632-00-0)			
Aquatic			
Crustacea	EC50	Greasyback shrimp (Metapenaeus ensis)	16.14 - 26.61 mg/L, 48 hours
Fish	LC50	Rainbow trout,donaldson trout (Oncorhynchus mykiss)	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 (Daphnia magna)	610 mg/L, 24 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	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.

Canada DSL Challenge Substances: Listed substance

Butane (CAS 106-97-8)	Listed.

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

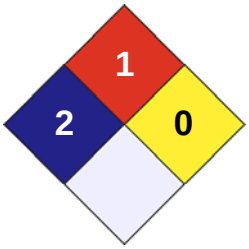
Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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.

Issue date 26-February-2018

Version # 02

Effective date 26-February-2018

Prepared by	Nu-Calgon Technical Service Phone: (314) 469-7000
Other information	For an updated SDS, please contact the supplier/manufacturer listed on the first page of the document.

SAFETY DATA SHEET

Sid Harvey item # 4171-75 SDS # Z0219

1. Product and Company Identification

Product identifier **Evap Foam No Rinse-Aerosol (4171-75)**

Other means of identification Not available

Recommended use Cleaner

Recommended restrictions None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name Nu-Calgon

Address 2008 Altom Court
St. Louis, MO 63146
United States

Telephone 314-469-7000 / 800-554-5499

E-mail info@nucalgon.com

Emergency phone number 1-800-424-9300 (CHEMTREC)

2. Hazards Identification

Physical hazards Gases under pressure — Liquefied gas

Health hazards Serious eye damage/eye irritation — Category 1

Environmental hazards Not classified.

OSHA defined hazards Not classified.

Label elements

Signal word Danger

Hazard statement Contains gas under pressure; may explode if heated. Causes serious eye damage.

Precautionary statement

Prevention Wear eye/face protection.

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.

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

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

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

Supplemental information Not applicable.

3. Composition/Information on Ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
Butane		106-97-8	2.95
Diethylene glycol monoethyl ether		111-90-0	2.84
Propane		74-98-6	2.05
Ethanol, 2-butoxy-		111-76-2	2
Tetrasodium ethylenediamine tetraacetate		64-02-8	1.64
Sodium metasilicate		6834-92-0	0.14

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.

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

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 800 ppm
Ethanol, 2-butoxy- (CAS 111-76-2)	TWA	24 mg/m3 5 ppm
Propane (CAS 74-98-6)	TWA	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. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

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

US. Minnesota Hazardous Substances List (Minn. Rules 5206.0400).

Ethanol, 2-butoxy- (CAS 111-76-2) Skin designation applies.

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.

US. Tennessee. OELs. Occupational Exposure Limits, Table Z1A

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 Chemical splash goggles.

Skin protection

Hand protection Wear protective gloves.

Other Not available.

Respiratory protection Wear positive pressure self-contained breathing apparatus (SCBA).

Thermal hazards Not applicable.

General hygiene considerations When using do not 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 Compressed liquefied gas

Physical state Gas.

Form Liquefied gas.

Color Clear

Odor Lemon lime

Odor threshold	Not available.
pH	12.3
Melting point/freezing point	Not available.
Initial boiling point and boiling range	32 - 401 °F (0 - 205 °C)
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	65 psi @ 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. Contact with incompatible materials.
Incompatible materials	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). Oxidizing agents. Acids.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon.

11. Toxicological Information

Information on likely routes of exposure

Ingestion	Expected to be a low ingestion hazard.
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		
Dermal		
LD50	Not available	
Inhalation		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	276000 ppm, 4 Hours
		658 mg/l/4h
Oral		
LD50	Not available	
Diethylene glycol monoethyl ether (CAS 111-90-0)		
Acute		
Dermal		
LD50	Guinea pig	5900 mg/kg
	Mouse	6000 mg/kg
	Rabbit	6000 mg/kg
	Rat	6000 mg/kg
Inhalation		
LC50		
	Rat	5240 mg/l/4h
Oral		
LD50	Guinea pig	3000 mg/kg
	Rabbit	3620 mg/kg
	Rat	5500 mg/kg
		1920 mg/kg
Ethanol, 2-butoxy- (CAS 111-76-2)		
Acute		
Dermal		
LD50	Guinea pig	207 mg/kg
	Rabbit	400 mg/kg
		220 mg/kg
		99 mg/kg
	Rat	99 mg/kg
Inhalation		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
		2.2 mg/l, 4 Hours
Oral		
LD50	Guinea pig	1200 mg/kg
	Mouse	1200 mg/kg
	Rabbit	320 mg/kg
	Rat	470 mg/kg
Propane (CAS 74-98-6)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Rat	> 1442.8 mg/l, 15 Minutes
Oral		
LD50	Not available	

Components	Species	Test Results
Sodium metasilicate (CAS 6834-92-0)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Mouse	2400 mg/kg
	Rat	1153 mg/kg
Tetrasodium ethylenediamine tetraacetate (CAS 64-02-8)		
Acute		
Dermal		
LD50	Not available	
Inhalation		
LC50	Not available	
Oral		
LD50	Rat	1658 mg/kg

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

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, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

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

Specific target organ toxicity - single exposure Not classified.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not likely, due to the form of the product.

Chronic effects Prolonged inhalation may be harmful.

Further information Not available.

12. Ecological Information

Ecotoxicity See below

Components		Species	Test Results
Diethylene glycol monoethyl ether (CAS 111-90-0)			
Crustacea	EC50	Daphnia	4305 mg/L, 48 Hours

Components		Species	Test Results
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	> 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 (Menidia beryllina)	1250 mg/l, 96 hours
Sodium metasilicate (CAS 6834-92-0)			
Aquatic			
Crustacea	EC50	Water flea (Ceriodaphnia dubia)	0.28 - 0.57 mg/l, 48 hours
Fish	LC50	Western mosquitofish (Gambusia affinis)	1800 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 (Daphnia magna)	610 mg/l, 24 hours
Fish	LC50	Bluegill (Lepomis macrochirus)	472 - 500 mg/l, 96 hours

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)

Butane	2.89
Diethylene glycol monoethyl ether	-0.54
Ethanol, 2-butoxy-	0.83
Propane	2.36

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

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:

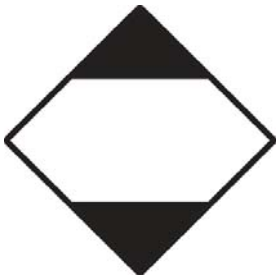
UN number	UN1950
Proper shipping name	Aerosols, non-flammable
Hazard class	Limited Quantity - IATA
ERG code	2L

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

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 - No 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	2.84
Ethanol, 2-butoxy-	111-76-2	2

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
Safe Drinking Water Act (SDWA)	Not regulated.
Food and Drug Administration (FDA)	Not regulated.

US state regulations 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.

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

Butane (CAS 106-97-8)	Listed.
Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.

US - California Proposition 65 - Carcinogens & Reproductive Toxicity (CRT): Listed substance

Not listed.

US - Illinois Chemical Safety Act: 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 - Louisiana Spill Reporting List: Reportable quantity (total mass into atmosphere)

Diethylene glycol monoethyl ether (CAS 111-90-0)	100 LBS
Ethanol, 2-butoxy- (CAS 111-76-2)	100 LBS

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)	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. Massachusetts RTK - Substance List

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

US. Pennsylvania RTK - Hazardous Substances

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. Rhode Island RTK

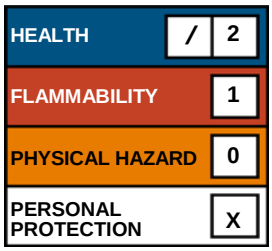
Butane (CAS 106-97-8)	Listed.
Diethylene glycol monoethyl ether (CAS 111-90-0)	Listed.
Ethanol, 2-butoxy- (CAS 111-76-2)	Listed.
Propane (CAS 74-98-6)	Listed.

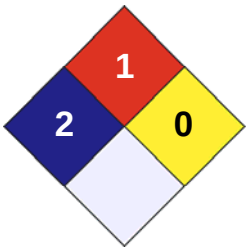
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s)

16. Other Information

LEGEND	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0





Disclaimer

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Issue date

24-September-2014

Further information

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

Other information

This Safety Data Sheet was prepared to comply with the current OSHA Hazard Communication Standard (HCS) adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).

Prepared by

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

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Name	Phone Number			CHEMTREC
Nu-Calgon Wholesaler, Inc.	(314) 469-7000 / (800) 554-5499			(800) 424-9300
Street Address	**City**	**State**	**Postal Code**	**Last Update**
2008 Altom Court	St. Louis	MO	63146-4151	2/2/07
Product Name	**Product Number**	**Product Use**		**EPA Registration #**
Evap Foam No Rinse-Aerosol	4171	Aerosol Coil Cleaner		N/A

SECTION 2 – COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous Ingredients	% By Wt.	CAS Number	TLV	PEL
AQUA AMMONIA	0.03%	1336-21-6	No Data.	25 ppm
DIETHYLENE GLYCOL MONOETHYL ETHER	2.84%	111-90-0	25 ppm TWA	None Established
ETHYLENE GLYCOL N-BUTYL ETHER, EB	2.00%	111-76-2	ACGIH Exposure Limits: 20 PPM	25 PPM
TETRASODIUM EDTA	1.64%	64-02-8	No Data.	None Established
CAUSTIC SODA 50%	0.08%	1310-73-2	No Data.	2 MG/M3
SODIUM METASILICATE	0.14%	6834-92-0	No Data.	15MG/M3
SODIUM NITRITE	0.19%	7632-00-0	No Data.	None Established
BUTANE	2.95%	106-97-8	No Data.	800 ppm TWA
PROPANE	2.05%	74-98-6	No Data.	1000 ppm 2100 ppm IDLH

SECTION 3 – HAZARD IDENTIFICATION

Emergency Overview: PROLONGED EXPOSURE ABOVE THE OSHA PERMISSIBLE EXPOSURE LIMITS (PEL) MAY RESULT IN KIDNEY AND LIVER DAMAGE

Potential Health Effects

Eyes: CAN CAUSE EYE IRRITATION.

Skin: SLIGHT SKIN IRRITATION, CAN CAUSE DERMATITIS.

Ingestion: MAY CAUSE CHEMICAL PNEUMONIA IF ASPIRATED INTO LUNG.

Inhalation: SHORTNESS OF BREATH, DIZZINESS AND LIGHTHEADEDNESS.

Chronic Exposure: No Data.

Carcinogenicity: NOT DETERMINED

Medical Conditions Aggravated be Exposure: NONE RECOGNIZED

SECTION 4 – FIRST AID MEASURES

Eyes: FLUSH WITH LARGE AMOUNTS OF WATER FOR AT LEAST 20 MINUTES. LIFTING UPPER AND LOWER LIDS OCCASIONALLY, GET MEDICAL ATTENTION

Skin: THOROUGHLY WASH EXPOSED SKIN WITH SOAP AND WATER.

Ingestion: DO NOT INDUCE VOMITTING. IMMEDIATELY DRINK TWO GLASSES OF WATER. NEVER GIVE ANYTHING TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION,

Inhalation: REMOVE INDIVIDUAL TO FRESH AIR. GIVE OXYGEN IF BREATHING IS LABORED. IF BREATHING HAS STOPPED GIVE ARTIFICIAL RESPIRATION. KEEP PERSON WARM, QUIET AND SEEK MEDICAL ATTENTION.

SECTION 5 – FIREFIGHTING MEASURES

Flash Point: N/D°C / N/D°F

Autoignition Temp: N/D°C / N/D°F

Hazardous Products of Combustion: BURNING CAN PRODUCE CARBON MONOXIDE AND/OR CARBON DIOXIDE AND TRACES OF PHOSGENE GAS

Flammable Limits in Air: MATERIAL IS HIGHLY VOLATILE AND READILY GIVES OFF VAPORS WHICH MAY TRAVEL ALONG THE GROUND AND IGNITED BY PILOT LIGHTS, FLAMES, SPARKS, HEATERS, SMOKING, ELECTRIC MOTORS, STATIC DISCHARGES OR OTHER IGNITION SOURCE DISTANT FROM THE HANDLING POINT.

Extinguishing Media: WATER FOG OR FINE SPRAY. CARBON DIOXIDE, DRY CHEMICAL, FOAM, ALCOHOL RESISTANT FOAMS (ATC TYPE) ARE PREFERRED IF AVAILABLE. GENERAL PURPOSE SYNTHETIC FOAMS (INCLUDING AFFF) OR PROTEIN FOAMS MAY FUNCTION , BUT MUCH LESS EFFECTIVELY.

Fire and Explosion Hazards: No Data.

Special Firefighting Procedures: KEEP PEOPLE AWAY. ISOLATE FIRE AREA AND DENY UNNECESSARY ENTRY. BURNING LIQUIDS MAY BE MOVED BY FLUSHING WITH WATER TO PROTECT PERSONNEL AND MINIMIZE PROPERTY DAMAGE. BURNING LIQUIDS MAY BE EXTINGUISHED BY DILUTION WITH WATER. DO NOT USE DIRECT WATER STREAM, MAY SPREAD FIRE. PROTECTIVE EQUIPMENT FOR FIRE FIGHTERS: WEAR POSITIVE-PRESSURE SELF-CONTAINED BREATHING APPARATUS (SCBA) AND PROTECTIVE FIRE FIGHTING CLOTHING. IF PROTECTIVE EQUIPMENT IS NOT AVAILABLE, FIGHT FIRE FROM A PROTECTED LOCATION OR SAFE DISTANCE.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Spill or Leak: EMERGENCY ACTION: ISOLATE SPILL OR LEAK AREA IMMEDIATELY. KEEP UNAUTHORIZED PERSONNEL AWAY. VENTILATE AREA AND ELIMINATE ALL IGNITION SOURCES. SMALL SPILLS: CLEAN UP WITH INERT MATERIALS AND DISPOSE OF IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REGULATIONS. LARGE SPILLS: DIKE AHEAD OF LIQUID SPILL FOR LATER DISPOSAL. DO NOT DISCHARGE EFFLUENT OF THIS PRODUCT INTO LAKES, STREAMS, PONDS OR OTHER WATERS UNLESS IN ACCORDANCE WITH ALL LOCAL, STATE AND FEDERAL REQUIREMENTS.

SECTION 7 – HANDLING AND STORAGE

Handling Procedures and Equipment: KEEP CONTAINERS TIGHTLY CLOSED. ISOLATE FROM HEAT, SPARKS AND OPEN FLAMES. CLOSED CONTAINERS MAY EXPLODE WHEN EXPOSED TO EXTREME HEAT.

Storage Requirements: DO NOT STORE IN DIRECT SUNLIGHT, NEAR OPEN FLAMES/SPARKS OR AT TEMPERATURES EXCEEDING 120F.

SECTION 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Respiratory Protection: MAY BE REQUIRED IF AIRBORNE CONCENTRATIONS CANNOT BE REDUCED TO BELOW THE ESTABLISHED EXPOSURE LIMITS.

Eye Protection: CHEMICAL SPLASH GOGGLES OR FACE SHIELD IS RECOMMENDED.

Protective Clothing: PERSONAL PROTECTIVE EQUIPMENT IS RECOMMENDED FOR PROLONGED OR REPEATED CONTACT. PPROPRIATE CHEMICAL RESISTANT GLOVES SHOULD ALWAYS BE WORN. CLOTHING AND EQUIPMENT AS LISTED IN 29CFR1910.132&133. ALL CONTAMINATED PERSONAL PROTECTIVE EQUIPMENT SHOULD BE COLLECTED AND DISPOSED OF ACCORDING TO ALL LOCAL, STATE AND FEDERAL REGULATIONS.

Exposure Guidelines: GENERAL VENTILATION MAY BE ADEQUATE FOR MAINTAINING AIRBORNE CONCENTRATIONS BELOW ESTABLISHED EXPOSURE LIMITS. IF GENERAL VENTILATION IS INADEQUATE, SUPPLEMENTAL LOCAL EXHAUST MAY BE REQUIRED. WHERE EXPLOSIVE MIXTURE MAY BE PRESENT, SYSTEMS SAFE FOR SUCH LOCATIONS SHOULD BE USED.

Specific Engineering Controls (such as ventilation, enclosed process): PROVIDE GENERAL AND/OR LOCAL EXHAUST VENTILATION TO CONTROL AIRBORNE LEVELS BELOW THE EXPOSURE GUIDELINES.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical Form: AEROSOL SPRAY	**Freezing Point:** No Data.°C/No Data.°F	**% Volatile by Weight:** NOT DETERMINED%
Color: No Data.	**Vapor Density [air =1]:** NOT DETERMINED	**Evaporation Rate:** IS SLOWER THAN ETHER
Odor: AMMONIA CLEANER	**Vapor Pressure:** No Data.	**Specific Gravity:** NOT DETERMINED
Boiling Point: 198 to 205°C/388 to 401°F	**Solubility in Water:** No Data.	**pH (concentrate):** No Data.

SECTION 10 – STABILITY AND REACTIVITY

Chemical Stability: STABLE UNDER NORMAL CONDITIONS. KEEP AWAY FROM HEAT, SPARKS OR OPEN FLAMES.

Hazardous Polymerization: Will not occur.

Incompatibilities: STRONG OXIDIZING AGENTS, STRONG ALKALIES AND STRONG MINERAL ACIDS, HALOGENS, NON-FERROUS METALS, BORON, CHLORITES, CHROMIUM TRIOXIDE, DIMETHYL SULFATE, ETHYLENE OXIDE, GOLD, MERCURY, NITROGEN TETROXIDE AND OLEUM, ZINC, MAGNESIUM, ALUMINUM, AND GALVANIZED METALS.

Reactive Conditions to avoid: BURNING CAN PRODUCE CARBON MONOXIDE AND/OR CARBON DIOXIDE AND TRACES OF PHOSGENE GAS. HEATING FORMS GASEOUS AMMONIA. NORMAL COMBUSTION PRODUCTS ARE NITROGEN AND WATER BUT OXIDES OF NITROGEN MAY BE FORMED UNDER CERTAIN CONDITIONS.

Decomposition Products: INCLUDE AND ARE NOT LIMITED TO FORMALDEHYDE.

SECTION 11 – TOXICOLOGICAL INFORMATION

Hazardous Ingredients	CAS #	EINECS #	LD 50 of Ingredient (Specify Species)	LC50 of Ingredient (Specify Species)
NOT DETERMINED				

SECTION 12 – ECOLOGICAL INFORMATION

Hazardous Ingredients	Aquatic Toxicity Data
NOT DETERMINED	

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal: EMPTY AEROSOL CONTAINERS MAY BE DISPOSED OF THROUGH NORMAL CHANNELS. FULL OR PARTIALLY FULL CONTAINERS ARE CONSIDERED HAZARDOUS WASTE AND MUST BE DISPOSED OF ACCORDINGLY.

SECTION 14 – TRANSPORTATION INFORMATION

Special Shipping Information: FOR DOT REGULATORY INFORMATION, IF REQUIRED, CONSULT TRANSPORTATION REGULATIONS OR PRODUCT SHIPPING PAPERS.

Purview	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT (Land)	CONSUMER COMMODITY	No Data.	No Data.	ORM-D
IMO (Water)	No Data.			
ICAO (Air)	No Data.			

SECTION 15 – REGULATORY INFORMATION

WHMIS Classification: (Workplace Hazardous Material Information System)	A (Compressed Gas), B5 (Flammable), and D2b (T over the period)
SARA Title III: (Superfund Amendments & Reauthorization Act)	No Data.
OSHA: (Occupational Safety & Health Administration)	No Data.
TSCA: (Toxic Substance Control Act)	ALL INGREDIENTS ARE ON THE TSCA INVENTORY OR ARE NOT REQUIRED TO BE LISTED ON THE TSCA INVENTORY
VOC: (volatile Organic Compounds)	No Data.
CPR: (Canadian Controlled Products Regulations)	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations.
EINECS: (European Inventory of Existing Commercial Chemical Substances)	No Data.
DSL / NDSL: (Canadian Domestic Substance List)(Non-Domestic Substance List)	No Data.
CERCLA: (Comprehensive Response Compensation & Liability Act)	No Data.
IDL: (Canadian Ingredient Disclosure List)	No Data.
NFPA (HMIS) Rating: (Hazardous Materials Identification System)	Health Hazard.....: 2 Fire Hazard.....: 1 Reactivity.....: 0 Personal Protection...: X

SECTION 16 – OTHER INFORMATION

INTENTIONAL MISUSE BY DELIBERATELY CONCENTRATING VAPORS AND INHALING CONTENTS CAN BE HARMFUL OR FATAL