

SAFETY DATA SHEET

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/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/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		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Mouse	680 mg/l, 2 Hours
	Rat	276000 ppm, 4 Hours
		658 mg/l/4h
<i>Oral</i>		
LD50	Not available	
Diethylene glycol monoethyl ether (CAS 111-90-0)		
Acute		
<i>Dermal</i>		
LD50	Guinea pig	5900 mg/kg
	Mouse	6000 mg/kg
	Rabbit	6000 mg/kg
	Rat	6000 mg/kg
<i>Inhalation</i>		
LC50	Rat	5240 mg/l/4h
<i>Oral</i>		
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		
<i>Dermal</i>		
LD50	Guinea pig	207 mg/kg
	Rabbit	400 mg/kg
		220 mg/kg
		99 mg/kg
	Rat	99 mg/kg
<i>Inhalation</i>		
LC50	Mouse	700 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
		2.2 mg/l, 4 Hours
<i>Oral</i>		
LD50	Guinea pig	1200 mg/kg
	Mouse	1200 mg/kg
	Rabbit	320 mg/kg
	Rat	470 mg/kg
Propane (CAS 74-98-6)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Rat	> 1442.8 mg/l, 15 Minutes
<i>Oral</i>		
LD50	Not available	

Components	Species	Test Results
Sodium metasilicate (CAS 6834-92-0)		
Acute		
<i>Dermal</i>		
LD50	Not available	
<i>Inhalation</i>		
LC50	Not available	
<i>Oral</i>		
LD50	Mouse	2400 mg/kg
	Rat	1153 mg/kg
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	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 (<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 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
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.

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:

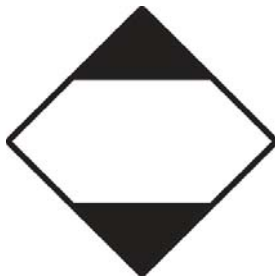
UN number UN1950
Proper shipping name Aerosols, non-flammable
Hazard class Limited Quantity - IATA
ERG code 2L

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.

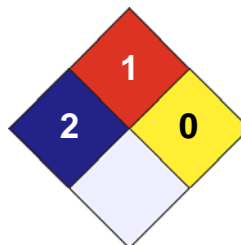
Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*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

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

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

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