



VAPCO PRODUCTS, INC.

Safety Data Sheet Foaminator Cylinder

SECTION 1: Identification

GHS Product identifier

Product name	Foaminator Cylinder
Product number	FM-SC, FM-LC
Brand	Vapco

Recommended use of the chemical and restrictions on use

Non-acid, alkaline-based coil cleaner

Supplier's details

Name	Vapco Products, Inc.
Address	401 Marshall Road Valley Park, Missouri 63088 United States
Telephone	(636) 923-2121
Fax	(636) 923-3002
email	info@VapcoProducts.com

Emergency phone number

(800) 255-3924

SECTION 2: Hazard identification

Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Eye damage/irritation, Cat. 1
- Flammable gases, Cat. 1
- Corrosive to metals, Cat. 1
- Gases under pressure, compressed gas

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- Skin corrosion/irritation, Cat. 1A

GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H220	Extremely flammable gas
H280	Contains gas under pressure; may explode if heated
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P234	Keep only in original container.
P260	Do not breathe dust/fume/gas/mist/vapors/spray.
P264	Wash hands and other exposed areas thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P310	Immediately call a POISON CENTER/doctor if exposed or concerned.
P321	Specific treatment (see First Aid on this label).
P363	Wash contaminated clothing before reuse.
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	Eliminate all ignition sources if safe to do so.
P390	Absorb spillage to prevent material-damage.
P403	Store in a well-ventilated place.
P405	Store locked up.
P406	Store in a corrosive resistant container with a resistant inner liner.
P410+P403	Protect from sunlight. Store in a well-ventilated place.
P501	Dispose of contents/container to the specifications of local, regional, national, and international regulations.

SECTION 3: Composition/information on ingredients

Mixtures

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Hazardous components

1. N-BUTANE

Concentration 1 - 10 % (weight)
EC no. 203-448-7
CAS no. 106-97-8
Index no. 601-004-01-8

2. Propane

Concentration 1 - 10 % (weight)
EC no. 200-827-9
CAS no. 74-98-6
Index no. 601-003-00-5

3. Sodium hydroxide

Concentration 1 - 10 % (weight)
EC no. 215-185-5
CAS no. 1310-73-2
Index no. 011-002-00-6

4. Ammonium hydroxide (28 -30% NH3)

Concentration 0.1 - 1 % (weight)
EC no. 215-647-6
CAS no. 1336-21-6
Index no. 007-001-01-2

5. D-Glucopyranose, oligomeric, decyl octyl glycosides

Concentration 0.1 - 1 % (weight)
EC no. 500-220-1
CAS no. 68515-73-1

6. D-Glucopyranose, oligomeric, C10-16-alkyl glycosides

Concentration 0.1 - 1 % (weight)
EC no. 600-975-8
CAS no. 110615-47-9

SECTION 4: First-aid measures

Description of necessary first-aid measures

General advice	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
If inhaled	First, take proper precautions to ensure your own safety before attempting rescue (e.g. wear appropriate respiratory protective equipment, use the buddy system), then remove the exposed person to fresh air. Keep at rest in a position comfortable for breathing. Get medical advice/attention.
In case of skin contact	Immediately drench affected area with water for at least 15 minutes. Remove contaminated clothing immediately. Obtain medical attention if irritation develops or persists.

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In case of eye contact	Immediately rinse with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if irritation develops or persists.
If swallowed	Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

Most important symptoms/effects, acute and delayed

Acute Health Hazards

Symptoms/Injuries: Harmful if inhaled. May cause severe burns on skin and eyes. May cause drowsiness and dizziness. Asphyxia by lack of oxygen: risk of death.

Indication of immediate medical attention and special treatment needed, if necessary

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand. **Note to Physician:** The absence of visible signs or symptoms of burns does not reliably exclude the presence of actual tissue damage.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Dry chemical, foam, or carbon dioxide (CO₂).

Specific hazards arising from the chemical

Explosion Hazard: Container may explode in heat of fire. Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries. Vapors are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapors. Keep away from heat, sparks, open flames and other sources of ignition. Contact with some metals, particularly magnesium, aluminum, and galvanized zinc can generate hydrogen rapidly, which is explosive.

Incompatibility: Organic materials, concentrated acids, metals. May react with certain food sugars.

Special protective actions for fire-fighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use dry chemical, foam, or carbon dioxide (CO₂). Do not breathe fumes from fire or vapors from decomposition. Do NOT fight fire when fire reaches containers. Evacuate area. Fight fire remotely due to the risk of explosion. Shut off all sources of ignition. Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. Wear NIOSH-approved Self-Contained Breathing Apparatus with a full face piece operated in a positive pressure demand mode with full body protective clothing when fighting fires.

Hazardous Combustion Products: Carbon oxides (CO, CO₂), nitrogen oxides (NO_x).

Further information

Do not allow run-off from fire fighting to enter drain or water courses.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General Measures: Do not get in eyes, on skin, or on clothing. Do not breathe vapors, spray, mist, gas. Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protective equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel. Stop leak if safe to do so.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

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Emergency Procedure: Eliminate ignition source first, then ventilate the area. Evacuate unnecessary personnel, isolate, and ventilate area. Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental precautions

Prevent entry into sewers and public waters. Avoid release to the environment.

Methods and materials for containment and cleaning up

For Containment: Ventilate area. Contain any spills with dikes or absorbents to prevent further migration and entry into sewers or streams. As an immediate precautionary measure, isolate spill or leak area in all directions.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Eliminate all ignition sources. Ventilate area. Stop the ignition source of the release, if safe to do so. Consider the use of water spray to disperse vapors. Isolate the area until gas has dispersed. Ventilate and gas test area before entering. Take up liquid spill into absorbent material. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

Waste Disposal: Dispose of in accordance with local, regional, national, and international regulations. Containers may be hazardous when empty. Do not flame cut, braze, or weld. Check the pH of the waste to be disposed - if it is greater than 12.5, it must be handled as RCRA hazardous waste.

RCRA Status: Waste likely considered hazardous under RCRA, however product should be fully characterized prior to disposal. May be subject to disposal regulations U.S. EPA 40 CFR 261. Hazardous waste number(s): D002.

Reference to other sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: Handling and storage

Precautions for safe handling

Additional Hazards When Processed: Do not pressurize, cut, or weld containers. Ruptured cylinders may rocket. Pressurized container: May burst if heated. Do not pierce or burn, even after use.

Precautions for Safe Handling: Do not handle until all safety precautions have been read and understood. Avoid contact with skin, eyes and clothing. Do not breathe gas, mist, spray, vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Do not spray on open flame or other ignition source.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

Other Precautions: Keep out of reach of children. Follow label instructions. Vapors may collect in low lying area.

Conditions for safe storage, including any incompatibilities

Technical Measures: Comply with applicable regulations. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Store in a dry, cool place. Keep only in the original container in a cool, well-ventilated place away from ignition sources. Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials. Store locked up/in a secure area.

Incompatible Materials: Organic materials, concentrated acids, metals. May react with certain food sugars.

Storage Temperature: <50°C/122°F.

Specific end use(s)

Alkaline-based coil cleaner

SECTION 8: Exposure controls/personal protection

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Control parameters

CAS: 1310-73-2

Sodium hydroxide

ACGIH (USA): (C) 2 mg/m³ TLV® inhalation; Cal/OSHA (USA): (C) 2 mg/m³ PEL inhalation; NIOSH (USA): (C) 2 mg/m³ REL inhalation; OSHA (USA): 2 mg/m³ PEL inhalation

CAS: 74-98-6

Propane

Cal/OSHA: 1000 ppm PEL inhalation; NIOSH: 1000 ppm REL inhalation; OSHA: 1000 ppm PEL inhalation; 1800 mg/m³ PEL inhalation

Appropriate engineering controls

Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Use explosion-proof equipment. Proper grounding procedures to avoid static electricity should be followed. Use only outdoors or in well-ventilated area. Ensure all local, regional, national, and international regulations are observed. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.

Individual protection measures, such as personal protective equipment (PPE)

Pictograms



Eye/face protection

Chemical safety goggles. Insufficient ventilation: wear respiratory protection. Respiratory protection of the dependent type.

Skin protection

Wear protective gloves and clothing.

Body protection

Wear suitable protective clothing. Wear protective gloves. Chemical resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.

Respiratory protection

Use a NIOSH-approved Self-Containing Breathing Apparatus whenever exposure may exceed established Occupational Exposure Limits.

SECTION 9: Physical and chemical properties and safety characteristics

Basic physical and chemical properties

Physical state	Liquid
Appearance	Spray Cylinder
Color	Yellow
Odor	Bland odor
Odor threshold	N/D
Melting point/freezing point	N/D
Boiling point or initial boiling point and boiling range	N/D

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Flammability	Extremely flammable
Lower and upper explosion limit/flammability limit	N/D
Flash point	N/D
Auto-ignition temperature	N/D
Decomposition temperature	N/D
pH	11-14
Kinematic viscosity	N/D
Solubility	Completely soluble in water
Partition coefficient n-octanol/water (log value)	N/D
Vapor pressure	1 at 77°F (25°C)
Evaporation rate	<0.8 Slow
Density and/or relative density	1.12 at 77°F (25°C)
Relative vapor density	N/A

Particle characteristics

Solids: N/D

Supplemental information regarding physical hazard classes

Dielectric Strength (Volts): N/A

Further safety characteristics (supplemental)

Volatile Organic Compounds (VOC): 3%

SECTION 10: Stability and reactivity

Reactivity

Chemically active metals and acids.

Chemical stability

Contains gas under pressure; may explode if heated. Pressurized container; may burst if heated.

Possibility of hazardous reactions

None known.

Conditions to avoid

None known.

Incompatible materials

Organic materials, concentrated acids, metals. May react with certain food sugars.

Hazardous decomposition products

Carbon oxides (CO, CO₂), nitrogen oxides (NO_x).

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Alkyl polyglycoside

LC50 Inhalation - >20 mg/l (vapor) ATE >5 mg/l (mist) ATE

LD50 Skin - Rabbit - >5,000 mg/kg

LD50 Oral - Rat - >5,000 mg/kg

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EC50 - Desmodemus subspicatus (chodat) - 10-100 mg/l - 72 h
EC50 - Daphnia magna (water flea) - 10-100 mg/l - 48 h
LC50 - Fish - 10-100 mg/l - 96 h

D-Glucopyranose, oligomeric, decyl octyl glycosides
LC50 - Fish - 170 mg/L - 96 h

Sodium hydroxide solid or pellets
LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h
LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h
EC50 - Daphnia magna (water flea) - 40.38 mg/l - 48 h
LC50 - Poecilia reticulata (guppy) - 196 mg/l - 96 h

Skin corrosion/irritation

Causes severe burns, prolonged contact will destroy tissue.

Serious eye damage/irritation

Causes severe burns, irritation, redness, tearing, pain, may result in loss of sight.

Respiratory or skin sensitization

May cause irritation (possible severe), chemical burns, upper respiratory damage, and pulmonary edema.

Germ cell mutagenicity

Not classified.

Carcinogenicity

Not classified.

Reproductive toxicity

Not classified.

STOT-single exposure

May cause severe burns. May cause drowsiness or dizziness.

STOT-repeated exposure

Dermatitis may occur due to long-term irritation.

Aspiration hazard

Harmful if inhaled. Causes serious eye irritation. May cause drowsiness and dizziness. Asphyxia by lack of oxygen: risk of death.

SECTION 12: Ecological information

Toxicity

Alkyl polyglycoside
LC50 Inhalation - >20 mg/l (vapor) ATE >5 mg/l (mist) ATE
LD50 Skin - Rabbit - >5,000 mg/kg
LD50 Oral - Rat - >5,000 mg/kg
EC50 - Desmodemus subspicatus (chodat) - 10-100 mg/l - 72 h
EC50 - Daphnia magna (water flea) - 10-100 mg/l - 48 h
LC50 - Fish - 10-100 mg/l - 96 h

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D-Glucopyranose, oligomeric, decyl octyl glycosides
LC50 - Fish - 170 mg/L - 96 h

Sodium hydroxide solid or pellets
LC50 - Gambusia affinis (Mosquito fish) - 125 mg/l - 96 h
LC50 - Oncorhynchus mykiss (rainbow trout) - 45.4 mg/l - 96 h
EC50 - Daphnia magna (water flea) - 40.38 mg/l - 48 h
LC50 - Poecilia reticulata (guppy) - 196 mg/l - 96 h

Persistence and degradability

This product is biodegradable.

Bioaccumulative potential

This product is not expected to bioaccumulate.

Mobility in soil

This product is mobile in soil.

Other adverse effects

Avoid release to the environment. Do not let residue come in contact with waterways.

SECTION 13: Disposal considerations

Disposal methods

Product disposal

Dispose of contents/container in accordance with local, regional, national, and international regulations. Do not pierce or burn, even after use. Check the pH of the waste to be disposed - if it is greater than 12.5, it must be handled as a RCRA hazardous waste. May be subject to disposal regulations U.S. EPA 40 CFR 261. Hazardous waste number(s): D002.

Sewage disposal

Avoid release into the environment. Keep out of sewers and waterways.

Other disposal recommendations

Container may remain hazardous when empty. Continue to observe all precautions. Do not puncture or incinerate container.

SECTION 14: Transport information

DOT (US)

UN Number: UN1956

Class: 2.1

Packing Group: N/A

Proper Shipping Name: Compressed gas, n.o.s.

Marine pollutant: N/A

SECTION 15: Regulatory information

Safety, health and environmental regulations specific for the product in question

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California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

Canadian Domestic Substances List (DSL)

Chemical name: Propane

CAS: 74-98-6

Chemical name: Butane

CAS: 106-97-8

Chemical name: Ammonium hydroxide ((NH₄)(OH))

CAS: 1336-21-6

Chemical name: D-Gluconic acid, monosodium salt

CAS: 527-07-1

Chemical name: D-Glucopyranose, oligomeric, decyl octyl glycosides

CAS: 68515-73-1

Chemical name: C10_16-alkyl, oligomeric, D-glucopyranoside

CAS: 110615-47-9

Chemical name: Sodium hydroxide (Na(OH))

CAS: 1310-73-2

CERCLA (Comprehensive Response Compensation, and Liability Act)

Sodium Hydroxide RQ: 1,000 lbs. Category C

Massachusetts Right To Know Components

Chemical name: Ammonium hydroxide

CAS number: 1336-21-6

Chemical name: Sodium hydroxide

CAS number: 1310-73-2

New Jersey Right To Know Components

Common name: PROPANE

CAS number: 74-98-6

Common name: BUTANE

CAS number: 106-97-8

Common name: AMMONIUM HYDROXIDE

CAS number: 1336-21-6

Common name: SODIUM HYDROXIDE

CAS number: 1310-73-2

Pennsylvania Right To Know Components

Chemical name: Propane

Safety Data Sheet

CAS number: 74-98-6

Chemical name: Butane

CAS number: 106-97-8

Chemical name: Ammonium hydroxide

CAS number: 1336-21-6

Chemical name: Sodium hydroxide

CAS number: 1310-73-2

SARA 302 Components

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 311/312 Hazards

Sudden Release of Pressure Hazard, Acute Health Hazard

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Toxic Substances Control Act (TSCA) Inventory

All chemicals are listed or exempt.

HMIS Rating

Foaminator Cylinder	
HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	1
PERSONAL PROTECTION	B

NFPA Rating



SECTION 16: Other information

N/A = Not applicable; N/D = Not determined

Further information/disclaimer

To the best of our knowledge, information contained herein is accurate. However there is no assumption of liability for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is

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the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazard which exists. The information contained in this SDS was obtained from current and reliable sources; however, the data is provided without warranty, expressed or implied, regarding its correctness or accuracy. Since the conditions of handling, storage and disposal of this product are beyond the control of the manufacturer, the manufacturer will not be responsible for loss, injury, or expense arising out of the products improper use. No warranty, expressed or inferred, regarding the product described in this SDS shall be created or inferred by any statement in this SDS. Various government agencies may have specific regulations regarding the transportation, handling, storage, use, or disposal of this product which may not be covered by this SDS. The user is responsible for full compliance.

Preparation information

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