



MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Material name	Bel-Ray Foam Filter Cleaner & Degreaser
Product Code	99180
MSDS Number	6390
Version #	1.0
Revision date	06-15-2010
Product use	Cleaning Agent
Manufacturer information	Bel-Ray Company, Inc. P.O. Box 526 Farmingdale, NJ 07727 United States of America +1 732 938 2421 CHEMTREC: +1 703-527-3887 (outside USA) CHEMTREC: 800-424-9300 (USA)

2. Hazards Identification

Emergency overview	CAUTION Combustible liquid and vapor. CONTENTS UNDER PRESSURE. Aerosol. Pressurized container may explode when exposed to heat or flame. May be harmful if swallowed. Irritating to skin. Irritating to eyes. This is a consumer care product that is safe for consumers when used according to the label directions. Like many consumer products, a small number of individuals may experience reactions such as redness, rash and / or swelling upon prolonged or repeated skin contact or eye contact.
OSHA regulatory status	This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).
Potential health effects	
Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Causes eye irritation. Avoid contact with eyes.
Skin	May be harmful if absorbed through skin. Irritating to skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis. Do not get this material in contact with skin.
Inhalation	Intentional misuse by concentrating and inhaling the product can be harmful or fatal. May be irritating. Prolonged inhalation may be harmful.
Ingestion	Exposure by ingestion of an aerosol is unlikely. Components of the product may be absorbed into the body by ingestion. Do not ingest. Small amounts of this product, if aspirated into the lungs, may cause mild to severe pulmonary injury.
Target organs	Blood. Skin. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged and may cause blood damage. These effects have not been observed in humans. Central nervous system.
Chronic effects	Unconsciousness. Cyanosis (blue tissue condition, nails, lips, and/or skin). May be harmful if absorbed through skin. May cause central nervous system disorder (e.g., narcosis involving a loss of coordination, weakness, fatigue, mental confusion and blurred vision) and/or damage. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Unconsciousness. Narcosis. Cyanosis (blue tissue condition, nails, lips, and/or skin). Decrease in motor functions. Behavioral changes. Irritation of nose and throat. Irritation of eyes and mucous membranes. Defatting of the skin. Skin irritation. Rash.
Potential environmental effects	May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
2-BUTOXYETHANOL	111-76-2	2.5 - 10
ALCOHOL, C12-16 POLY(ETHOXYLATE)	Proprietary	2.5 - 10
CARBON DIOXIDE	124-38-9	2.5 - 10

4. First Aid Measures

First aid procedures

Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Skin contact	Take off immediately all contaminated clothing. Wash off with warm water and soap. Get medical attention if irritation develops and persists.
Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Ingestion	Rinse mouth thoroughly. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. In the unlikely event of swallowing contact a physician or poison control center. Never give liquid to an unconscious person.

Notes to physician

Symptoms may be delayed.

General advice

Call a physician if symptoms develop or persist. Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire Fighting Measures

Flammable properties

Combustible by OSHA criteria. NFPA Rating Fire = 2. Materials that must be moderately heated or exposed to relative high ambient temperatures before ignition can occur. Heat may cause the containers to explode. Runoff to sewer may cause fire or explosion hazard.

Extinguishing media

Suitable extinguishing media Water. Water spray. Foam. Dry powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media Do not use a solid water stream as it may scatter and spread fire.

Protection of firefighters

Specific hazards arising from the chemical Fire may produce irritating, corrosive and/or toxic gases.

Fire fighting equipment/instructions Not available.

Specific methods In the event of fire and/or explosion do not breathe fumes. Cool containers exposed to flames with water until well after the fire is out.

Hazardous combustion products Carbon monoxide and carbon dioxide.

6. Accidental Release Measures

Personal precautions Keep unnecessary personnel away. Keep upwind. Keep out of low areas. Keep people away from and upwind of spill/leak. Ventilate closed spaces before entering them. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. In case of spills, beware of slippery floors and surfaces.

Environmental precautions Prevent further leakage or spillage if safe to do so. Do not contaminate water.

Methods for containment ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Stop leak if you can do so without risk. Move the cylinder to a safe and open area if the leak is irreparable. Use water spray to reduce vapors or divert vapor cloud drift.

Methods for cleaning up Should not be released into the environment. Wipe up with absorbent material (e.g. cloth, fleece). Following product recovery, flush area with water.

7. Handling and Storage

Handling

Pressurized container: Do not pierce or burn, even after use. 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 handle, store or open near an open flame, sources of heat or sources of ignition. Protect material from direct sunlight. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. All equipment used when handling the product must be grounded. Ground and bond containers when transferring material. Do not use if spray button is missing or defective. Do not re-use empty containers. Do not get this material in contact with skin. Avoid contact with eyes. Do not use in areas without adequate ventilation. Avoid prolonged exposure. Wash thoroughly after handling. Avoid release to the environment.

Storage

Level 1 Aerosol.

Contents under pressure. The pressure in sealed containers can increase under the influence of heat. 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. This material can accumulate static charge which may cause spark and become an ignition source. Avoid exposure to long periods of sunlight. Store in a well-ventilated place. Keep away from food, drink and animal feedings. Keep out of the reach of children. Use care in handling/storage.

8. Exposure Controls / Personal Protection

Occupational exposure limits

ACGIH

Components

Type

Value

2-BUTOXYETHANOL (111-76-2)

TWA

20.0000 ppm

CARBON DIOXIDE (124-38-9)

STEL

30000.0000 ppm

TWA

5000.0000 ppm

U.S. - OSHA

Components

Type

Value

2-BUTOXYETHANOL (111-76-2)

PEL

240.0000 mg/m3

50.0000 ppm

TWA

25.0000 ppm

120.0000 mg/m3

CARBON DIOXIDE (124-38-9)

PEL

5000.0000 ppm

9000.0000

mg/m3

STEL

54000.0000

mg/m3

30000.0000 ppm

TWA

10000.0000 ppm

18000.0000

mg/m3

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.

Personal protective equipment

Eye / face protection

Avoid contact with eyes. Chemical goggles are recommended.

Skin protection

Avoid contact with the skin. Wear appropriate chemical resistant clothing. Chemical resistant gloves.

Respiratory protection

If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator. When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

General hygiene considerations

When using do not smoke. Avoid contact with eyes. Avoid contact with skin. Keep away from food and drink. Handle in accordance with good industrial hygiene and safety practice.

9. Physical & Chemical Properties

Appearance

Aerosol.

Color

Pale yellow

Odor	Hydrocarbon-like.
Odor threshold	Not available.
Physical state	Liquid
Form	Aerosol.
pH	Not available.
Melting point/Freezing point	-94 °F (-70 °C) estimated / -94 °F (-70 °C) estimated
Boiling point	> 339.8 °F (> 171 °C)
Flash point	163.4 °F (73 °C) Pensky-Martens Closed Cup
Evaporation rate	Not available.
Flammability limits in air, upper, % by volume	5 % v/v estimated
Flammability limits in air, lower, % by volume	0.6 % v/v estimated
Vapor pressure	28620.4 hPa estimated
Density	832 kg/m ³
Vapor density	Not available.
Specific gravity	0.853933 estimated
Relative density	Not available.
Solubility (water)	Soluble
Solubility (other)	Oil Partially
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	460.4 °F (238 °C) estimated
Decomposition temperature	Not available.
VOC	5 %
Viscosity	2.5 cSt @ 104 °F (40 °C)
Percent volatile	5 % estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition. Material is stable under normal conditions.
Conditions to avoid	Heat, flames and sparks.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Irritants. At thermal decomposition temperatures, carbon monoxide and carbon dioxide.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product

Bel-Ray Foam Filter Cleaner & Degreaser (Mixture)

Test Results

Acute Dermal LD50 Rabbit: 4168 mg/kg estimated
 Acute Dermal LD50 Rabbit: 24.88 g/kg estimated
 Acute Inhalation LC50 Mouse: 14000 ppm estimated
 Acute Inhalation LC50 Mouse: 7000 mg/l estimated
 Acute Inhalation LC50 Rat: 4500 mg/l estimated
 Acute Oral LD50 Guinea pig: 12000 mg/kg estimated
 Acute Oral LD50 Mouse: 12000 mg/kg estimated
 Acute Oral LD50 Rabbit: 3200 mg/kg estimated
 Acute Oral LD50 Rat: 16020 mg/kg estimated
 Acute Oral LD50 Rat: 12.44 g/kg estimated

Product	Test Results
Bel-Ray Foam Filter Cleaner & Degreaser (Mixture)	Acute Other LD50 Mouse: 11300 mg/kg estimated Acute Other LD50 Rabbit: 2800 mg/kg estimated
Components	Test Results
2-BUTOXYETHANOL (111-76-2)	Acute Dermal LD50 Rabbit: 400 mg/kg Acute Inhalation LC50 Mouse: 700 mg/l 7.00 Hours Acute Inhalation LC50 Rat: 450 mg/l 4.00 Hours Acute Oral LD50 Guinea pig: 1200 mg/kg Acute Oral LD50 Mouse: 1200 mg/kg Acute Oral LD50 Rabbit: 320 mg/kg Acute Oral LD50 Rat: 1480 mg/kg Acute Other LD50 Mouse: 1130 mg/kg Acute Other LD50 Rabbit: 280 mg/kg Acute Other LD50 Rat: 340 mg/kg
ALCOHOL, C12-16 POLY(ETHOXYLATE) (Proprietary)	Acute Dermal LD50 Rabbit: > 2 g/kg Acute Oral LD50 Rat: 1 - 3 g/kg

* Estimates for product may be based on additional component data not shown.

Local effects	Components of the product may be absorbed into the body through the skin. Blood disorder may occur after ingestion. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Irritating to eyes. Irritating to skin.
Chronic effects	Hazardous by OSHA criteria. Prolonged inhalation may be harmful. May be harmful if absorbed through skin. 2-Butoxy ethanol may be absorbed through the skin in toxic amounts if contact is repeated and prolonged. These effects have not been observed in humans. Repeated absorption may cause disorder of central nervous system, liver, kidneys and blood. Prolonged exposure may cause chronic effects.
Subchronic effects	Blood disorder may occur after prolonged inhalation. Blood disorder may occur after ingestion. Blood disorder may occur after prolonged skin contact.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
ACGIH Carcinogens	
2-BUTOXYETHANOL (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
IARC Monographs. Overall Evaluation of Carcinogenicity	
2-BUTOXYETHANOL (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.
Epidemiology	Hazardous by OSHA criteria.
Neurological effects	Hazardous by OSHA criteria.
Further information	Symptoms may be delayed.

12. Ecological Information

Ecotoxicological data

Product	Test Results
Bel-Ray Foam Filter Cleaner & Degreaser (Mixture)	EC50 Daphnia: 5.7214 mg/l 48.00 hours estimated LC50 Fish: 2.8338 mg/l 96.00 hours estimated
Components	Test Results
2-BUTOXYETHANOL (111-76-2)	LC50 Inland silverside (Menidia beryllina): 1250 mg/l 96.00 hours

* Estimates for product may be based on additional component data not shown.

Ecotoxicity	Contains a substance which causes risk of hazardous effects to the environment.
Environmental effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Persistence and degradability	Not available.

13. Disposal Considerations

Disposal instructions	Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. This product, in its present state, when discarded or disposed of, is not a hazardous waste according to Federal regulations (40 CFR 261.4 (b)(4)). Under RCRA, it is the responsibility of the user of the product to determine, at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Dispose in accordance with all applicable regulations.
Waste from residues / unused products	Dispose of in accordance with local regulations.
Contaminated packaging	Do not re-use empty containers.

14. Transport Information

DOT

Basic shipping requirements:

UN number	UN1950
Proper shipping name	Aerosols, non-flammable
Hazard class	2.2
Labels required	2.2
Additional information:	
ERG number	126

IATA

Basic shipping requirements:

UN number	1950
Proper shipping name	Aerosols, non-flammable
Hazard class	2.2

IMDG

Basic shipping requirements:

UN number	1950
Proper shipping name	AEROSOLS, non-flammable
Hazard class	2.2



DOT



IATA



IMDG

15. Regulatory Information

US federal regulations	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. All components are on the U.S. EPA TSCA Inventory List.	
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: De minimis concentration	2-BUTOXYETHANOL (CAS 111-76-2)	1.0 % N230
US EPCRA (SARA Title III) Section 313 - Toxic Chemical: Listed substance	2-BUTOXYETHANOL (CAS 111-76-2)	Listed. N230
CERCLA (Superfund) reportable quantity	None	

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - Yes
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance
No

Section 311 hazardous chemical
No

Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
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)

State regulations
WARNING: This product contains a chemical known to the State of California to cause cancer and birth defects or other reproductive harm.

US - California Proposition 65 - CRT: Listed date/Carcinogenic substance

ETHYLENE OXIDE (CAS 75-21-8) Listed: July 1, 1987 Carcinogenic.

US - California Proposition 65 - CRT: Listed date/Developmental toxin

ETHYLENE OXIDE (CAS 75-21-8) Listed: August 7, 2009 Developmental toxin.

US - California Proposition 65 - CRT: Listed date/Female reproductive toxin

ETHYLENE OXIDE (CAS 75-21-8) Listed: February 27, 1987 Female reproductive toxin.

US - California Proposition 65 - CRT: Listed date/Male reproductive toxin

ETHYLENE OXIDE (CAS 75-21-8) Listed: August 7, 2009 Male reproductive toxin.

US - New Jersey Community RTK (EHS Survey): Reportable threshold

2-BUTOXYETHANOL (CAS 111-76-2) 500 LBS

US - Pennsylvania RTK - Hazardous Substances: Listed substance

2-BUTOXYETHANOL (CAS 111-76-2) Listed.

CARBON DIOXIDE (CAS 124-38-9) Listed.

16. Other Information

Further information
HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings
Health: 2*
Flammability: 2
Physical hazard: 0

NFPA ratings
Health: 2
Flammability: 2
Instability: 0

Disclaimer
Bel-Ray Company cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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