SAFETY DATA SHEET

1. Product and Company Identification

Product number	1000003819
Material name	**10 OZ CARPETAID 10% EB CARPET CLNR FR/EN**
Company information	PLZ Aeroscience Corporation 1000 Integram Drive Pacific, MO 63069 United States
Company phone	General Assistance 1-636-334-9100
Emergency telephone US	1-866-836-8855
Emergency telephone outside US	1-952-852-4646
Version #	01
Expiry Date	29-Jun-2018
Product use	Cleaner

2. Hazards Identification

Emergency overview

WARNING

Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame. Yields a flame projection at full valve opening or a flashback at any degree of valve opening. Will be easily ignited by heat, spark or flames. Harmful if swallowed, in contact with skin or if inhaled. Irritating to eyes and skin.

Potential health effects

Routes of exposure	Inhalation. Ingestion. Skin contact. Eye contact.
Eyes	Irritating to eyes.
Skin	Harmful if absorbed through skin. Irritating to skin.
Inhalation	Harmful by inhalation. Intentional misuse by concentrating and inhaling the product can be harmful or fatal. May cause irritation of respiratory tract. Prolonged inhalation may be harmful.
Ingestion	Exposure by ingestion of an aerosol is unlikely. Harmful if swallowed. Irritating. May cause nausea, stomach pain and vomiting.
Target organs	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.
Chronic effects	Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.
Signs and symptoms	Irritating to eyes and skin. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.
Potential environmental effects	May cause long-term adverse effects in the environment.

3. Composition / Information on Ingredients

Components	CAS #	Percent
Ethylene Glycol Monobutyl Ether	111-76-2	7 - 13
Diethylene Glycol Monobutyl Ether	112-34-5	5 - 10
Butane	106-97-8	1 - 5
Propane	74-98-6	1 - 5
Sodium Tetraborate	1303-96-4	0.1 - 1
Other components below reportable levels		60 - 100

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	Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention if irritation develops and persists. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.
Ingestion	In the unlikely event of swallowing contact a physician or poison control center. Rinse mouth thoroughly. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Never give anything by mouth to a victim who is unconscious or is having convulsions.
Notes to physician	Provide general supportive measures and treat symptomatically. Symptoms may be delayed.
General advice	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire Fighting Measures

Flammable properties	Pressurized container may explode when exposed to heat or flame. Ruptured cylinders may rocket. Vapors may travel considerable distance to a source of ignition and flash back.
Extinguishing media	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Protection of firefighters	
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Fire fighting equipment/instructions	Firefighters must use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA. Move containers from fire area if you can do so without risk. Containers should be cooled with water to prevent vapor pressure build up. Withdraw immediately in case of rising sound from venting safety device or any discoloration of tanks due to fire. For massive fire in cargo area, use unmanned hose holder or monitor nozzles, if possible. If not, withdraw and let fire burn out. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also consider initial evacuation for 800 meters (1/2 mile) in all directions. ALWAYS stay away from tanks engulfed in flame. Some of these materials, if spilled, may evaporate leaving a flammable residue.
Specific methods	In the event of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials. Cool containers exposed to flames with water until well after the fire is out.
Explosion data	
Sensitivity to static discharge	Not available.
Sensitivity to mechanical impact	Not available.
Hazardous combustion products	Carbon oxides.

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. For personal protection, see section 8 of the MSDS.
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. Dike the spilled material, where this is possible. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Ventilate the contaminated area. Use a non-combustible material like vermiculite, sand or earth to soak up the product and place into a container for later disposal. Following product recovery, flush area with water. Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. Clean up in accordance with all applicable regulations. For waste disposal, see section 13 of the MSDS.
Other information	Clean up in accordance with all applicable regulations.

7. Handling and Storage

Handling

Do not handle or store near an open flame, heat or other sources of ignition. 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. Pressurized container: Do not pierce or burn, even after use. 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. Do not re-use empty containers. Avoid contact with eyes, skin, and clothing. Do not breathe mist or vapor. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment.

Storage

Level 1 Aerosol.

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. This material can accumulate static charge which may cause spark and become an ignition source. Prevent electrostatic charge build-up by using common bonding and grounding techniques. Store in a well-ventilated place. Keep away from food, drink and animal feedingstuffs. Keep out of the reach of children. Keep in an area equipped with sprinklers. Store away from incompatible materials (see Section 10 of the MSDS).

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Components	Type	Value	Form
Butane (CAS 106-97-8)	STEL	1000 ppm	
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm	
Sodium Tetraborate (CAS 1303-96-4)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Components	Type	Value
Butane (CAS 106-97-8)	TWA	1000 ppm
Ethylene Glycol Monobutyl Ether (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	Form
Butane (CAS 106-97-8)	STEL	750 ppm	
	TWA	600 ppm	
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm	
Sodium Tetraborate (CAS 1303-96-4)	STEL	6 mg/m3	Inhalable
	TWA	2 mg/m3	Inhalable

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Components	Type	Value	Form
Butane (CAS 106-97-8)	STEL	1000 ppm	
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)	TWA	10 ppm	Inhalable fraction and vapor.
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm	
Sodium Tetraborate (CAS 1303-96-4)	STEL	6 mg/m3	Inhalable fraction.
	TWA	2 mg/m3	Inhalable fraction.

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Components	Type	Value
Butane (CAS 106-97-8)	TWA	800 ppm
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 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
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	97 mg/m3 20 ppm
Propane (CAS 74-98-6)	TWA	1800 mg/m3 1000 ppm
Sodium Tetraborate (CAS 1303-96-4)	TWA	5 mg/m3

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	PEL	240 mg/m3 50 ppm
Propane (CAS 74-98-6)	PEL	1800 mg/m3 1000 ppm

Biological limit values

ACGIH Biological Exposure Indices

Components	Value	Determinant	Specimen	Sampling Time
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*

* - For sampling details, please see the source document.

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. Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Skin protection Wear chemical protective equipment that is specifically recommended by the manufacturer. It may provide little or no thermal protection.

Respiratory protection If permissible levels are exceeded use NIOSH mechanical filter / organic vapor cartridge or an air-supplied respirator.

Hand protection Wear protective gloves.

9. Physical & Chemical Properties

Appearance

Physical state Liquid.

Form Aerosol.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Vapor pressure 55 psig @20C estimated

Vapor density Not available.

Boiling point 232.87 °F (111.59 °C) estimated

Melting point/Freezing point Not available.

Solubility (water)	Not available.
Specific gravity	0.957 estimated
Relative density	Not available.
Flash point	-156.0 °F (-104.4 °C) Propellant estimated
Flammability limits in air, upper, % by volume	9.5 % estimated
Flammability limits in air, lower, % by volume	1.9 % estimated
Auto-ignition temperature	446 °F (230 °C) estimated
Evaporation rate	Not available.
Percent volatile	98.96 % estimated
Partition coefficient (n-octanol/water)	Not available.
Other data	
Heat of combustion (NFPA 30B)	7.45 kJ/g estimated

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Avoid temperatures exceeding the flash point. Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents. Do not mix with other chemicals.
Hazardous decomposition products	No hazardous decomposition products are known.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	**Species**	**Test Results**
10 OZ CARPETAID 10% EB CARPET CLNR FR/EN (CAS Mixture)		
Acute		
Dermal		
LD50	Rat	2316 mg/kg
Inhalation		
LC50	Rat	21 mg/l/4h
Components	**Species**	**Test Results**
Butane (CAS 106-97-8)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)		
Acute		
Dermal		
LD50	Guinea pig	2 ml/kg, 2 Days
	Rabbit	2764 mg/kg, 24 Hours
Oral		
LD100	Rabbit	4000 mg/kg
LD50	Guinea pig	2000 mg/kg
	Mouse	2410 mg/kg
	Rabbit	2500 - 3000 mg/kg

Components	Species	Test Results
	Rat	3306 mg/kg
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)		
Acute		
Dermal		
LD50	Guinea pig	230 ml/kg, 24 Hours
		7.3 ml/kg, 4 Days
	Rabbit	450 ml/kg, 24 Hours
		435 mg/kg, 24 Hours
		0.63 ml/kg
	Rat	> 2000 mg/kg, 24 Hours
Inhalation		
LC50	Rabbit	400 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
Oral		
LD100	Rabbit	695 mg/kg
LD50	Dog	> 695 mg/kg
	Guinea pig	1200 mg/kg
	Rat	530 - 2800 mg/kg
Propane (CAS 74-98-6)		
Acute		
Inhalation		
LC50	Mouse	1237 mg/l, 120 Minutes
		52 %, 120 Minutes
	Rat	1355 mg/l
		658 mg/l/4h

Acute effects Harmful if swallowed, in contact with skin or if inhaled.

Sensitization This product is not expected to cause skin sensitization. Not a respiratory sensitizer.

Chronic effects 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.

Carcinogenicity Not expected to be hazardous by WHMIS criteria.

ACGIH Carcinogens

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
Sodium Tetraborate (CAS 1303-96-4)	A4 Not classifiable as a human carcinogen.

IARC Monographs. Overall Evaluation of Carcinogenicity

Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	3 Not classifiable as to carcinogenicity to humans.

Skin corrosion/irritation Irritating to skin.

Serious eye damage/irritation Irritating to eyes.

Mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive effects This product is not expected to cause reproductive or developmental effects.

Teratogenicity No data available to indicate product or any components present at greater than 0.1% may cause birth defects.

Synergistic materials Not available.

12. Ecological Information

Ecotoxicological data

Product		Species	Test Results
10 OZ CARPETAID 10% EB CARPET CLNR FR/EN (CAS Mixture)			
Aquatic			
Crustacea	EC50	Daphnia	17895 mg/L, 48 Hours
Fish	LC50	Fish	1880 mg/L, 96 Hours

Components		Species	Test Results
Diethylene Glycol Monobutyl Ether (CAS 112-34-5)			
Aquatic			
Fish	LC50	Bluegill (Lepomis macrochirus)	1300 mg/l, 96 hours
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)			
Aquatic			
Fish	LC50	Inland silverside (Menidia beryllina)	1250 mg/l, 96 hours

Ecotoxicity Not expected to be harmful to aquatic organisms.

Environmental effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Aquatic toxicity The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability Not available.

Partition coefficient

Butane	2.89
Diethylene Glycol Monobutyl Ether	0.56
Ethylene Glycol Monobutyl Ether	0.83
Propane	2.36

13. Disposal Considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Contents under pressure. Do not puncture, incinerate or crush. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

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

TDG

UN number UN1950
UN proper shipping name AEROSOLS, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Packing group Not applicable.
Environmental hazards D
Special precautions for user Read safety instructions, MSDS and emergency procedures before handling.

IATA

UN number UN1950
UN proper shipping name Aerosols, flammable
Transport hazard class(es)
Class 2.1
Subsidiary risk -
Label(s) 2.1
Packing group Not applicable.
Environmental hazards No.
ERG Code 10L

Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, MSDS and emergency procedures before handling.
Other information	
Passenger and cargo aircraft	Allowed.
Cargo aircraft only	Allowed.

IMDG

UN number	UN1950
UN proper shipping name	AEROSOLS
Transport hazard class(es)	
Class	2.1
Subsidiary risk	-
Label(s)	None
Packing group	Not applicable.
Environmental hazards	
Marine pollutant	No.
EmS	F-D, S-U
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, MSDS and emergency procedures before handling.

IATA; IMDG; TDG

15. Regulatory Information

Canadian regulations	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS status	Controlled
WHMIS classification	A - Compressed Gas B3 - Combustible Liquids D1A - Immediate/Serious-VERY TOXIC D2B - Other Toxic Effects-TOXIC

WHMIS labeling

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	No
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	No
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	No

Country(s) or region	Inventory name	On inventory (yes/no)*
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	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)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

Disclaimer

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. Plaze 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 in the sheet was written based on the best knowledge and experience currently available.

Prepared by

Not available.

This data sheet contains changes from the previous version in section(s):

Product and Company Identification: Product Review
Composition / Information on Ingredients: Ingredients
Physical & Chemical Properties: Multiple Properties
Transport Information: Proper Shipping Name/Packing Group
Regulatory Information: United States
HazReg Data: North America
GHS: Classification