

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number RA009C
Material name Disinfectant Surface Cleaner
Company information PRO-LINK, INC
421 RICHMOND RD.
OTTAWA, ON K1Z 1E9 Canada
Company phone General Assistance 613-722-0798
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 1-952-852-4646
Version # 01
Expiry Date 17-Aug-2018
Product use PESTICIDE

2. Hazards Identification

Emergency overview WARNING

Flammable aerosol. Contents under pressure. Pressurized container may explode when exposed to heat or flame. Will be easily ignited by heat, spark or flames. Harmful if swallowed, in contact with skin or if inhaled. Causes skin irritation. Causes serious eye damage. Prolonged exposure may cause chronic effects.

Potential health effects

Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.

Eyes Can cause severe eye irritation. Risk of serious damage to eyes.

Skin Harmful if absorbed through skin. Causes skin irritation.

Inhalation Harmful by inhalation. Intentional misuse by concentrating and inhaling the product can be harmful or fatal. May cause irritation of respiratory tract.

Ingestion Exposure by ingestion of an aerosol is unlikely. Harmful if swallowed. Irritating. May cause nausea, stomach pain and vomiting.

Target organs Eyes. Skin. Respiratory system.

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 May be harmful if absorbed through skin. Frequent or prolonged contact may defat and dry the skin, leading to discomfort and dermatitis.

Signs and symptoms Skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin. Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. 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	3 - 7
Butane	106-97-8	1 - 5
EDTA Tetrasodium Salt	64-02-8	1 - 5
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 immediately.
Skin contact	Immediately flush skin with plenty of water. 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. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Notes to physician Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

General advice Immediate medical attention is required. 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.

5. Fire Fighting Measures

Flammable properties Flammable by WHMIS criteria. Ruptured cylinders may rocket.

Extinguishing media

Suitable extinguishing media Water.

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 Contents under pressure. Pressurized container may explode when exposed to heat or flame. Fire may produce irritating, corrosive and/or toxic gases.

Protective equipment for firefighters Firefighters should wear full protective clothing including self contained breathing apparatus. Structural firefighters protective clothing will only provide limited protection.

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. Do not direct water at source of leak or safety devices as icing may occur. 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. Some of these materials, if spilled, may evaporate leaving a flammable residue. Containers should be cooled with water to prevent vapor pressure build up. ALWAYS stay away from tanks engulfed in flame.

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. Use standard firefighting procedures and consider the hazards of other involved materials.

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. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). 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 Avoid discharge into drains, water courses or onto the ground.

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. If possible, turn leaking containers so that gas escapes rather than liquid. Move the cylinder to a safe and open area if the leak is irreparable. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks). Keep out of low areas. Prevent entry into waterways, sewer, basements or confined areas.
Methods for cleaning up	Ventilate the area. Isolate area until gas has dispersed. 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. 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 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. Ground and bond containers when transferring material. Do not re-use empty containers. Do not use in areas without adequate ventilation. Do not breathe mist or vapor. Avoid contact with eyes, skin, and clothing. Wear appropriate personal protective equipment. When using do not eat or drink. Use only in well-ventilated areas. Observe good industrial hygiene practices. Wash thoroughly after handling. Avoid release to the environment. Avoid prolonged exposure.
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. 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
Butane (CAS 106-97-8)	STEL	1000 ppm
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm

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

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
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm

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

Components	Type	Value
Butane (CAS 106-97-8)	STEL	1000 ppm
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	20 ppm

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

Components	Type	Value
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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
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Butane (CAS 106-97-8)	TWA	1900 mg/m3
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	TWA	800 ppm
		97 mg/m3
		20 ppm

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

Components	Type	Value
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Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	PEL	240 mg/m3
		50 ppm

Biological limit values**ACGIH Biological Exposure Indices**

Components	Value	Determinant	Specimen	Sampling Time
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Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	200 mg/g	Butoxyacetic acid (BAA), with hydrolysis	Creatinine in urine	*
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* - For sampling details, please see the source document.

Engineering controls Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

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

Skin protection Wear appropriate chemical resistant clothing.

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 Gas.

Form Aerosol. Compressed gas.

Color Not available.

Odor Not available.

Odor threshold Not available.

pH Not available.

Vapor pressure 55 - 75 psig @70F estimated

Vapor density Not available.

Boiling point 212 °F (100 °C) estimated

Melting point/Freezing point Not available.

Solubility (water) Not available.

Specific gravity 0.979 estimated

Relative density Not available.

Flash point -156.0 °F (-104.4 °C) Propellant estimated

Flammability limits in air, upper, % by volume Not available.

Flammability limits in air, lower, % by volume Not available.

Auto-ignition temperature Not available.

Evaporation rate	Not available.
Partition coefficient (n-octanol/water)	Not available.
Other data	
Flammability (solid, gas)	Flammable gas.

10. Chemical Stability & Reactivity Information

Reactivity	Reacts violently with strong acids. This product may react with oxidizing agents.
Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Aerosol containers are unstable at temperatures above 49°C. Avoid temperatures exceeding the flash point. Do not mix with other chemicals. Contact with incompatible materials.
Incompatible materials	Acids. 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

Components	Species	Test Results
Butane (CAS 106-97-8)		
Acute		
<i>Inhalation</i>		
LC50	Mouse	1237 mg/l, 120 Minutes
	Rat	52 %, 120 Minutes
		1355 mg/l
EDTA Tetrasodium Salt (CAS 64-02-8)		
Acute		
<i>Oral</i>		
LD50	Rat	1658 mg/kg
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)		
Acute		
<i>Dermal</i>		
LD50	Guinea pig	230 ml/kg, 24 Hours
	Rabbit	7.3 ml/kg, 4 Days
		450 ml/kg, 24 Hours
		435 mg/kg, 24 Hours
		0.63 ml/kg
	Rat	> 2000 mg/kg, 24 Hours
<i>Inhalation</i>		
LC50	Rabbit	400 ppm, 7 Hours
	Rat	450 ppm, 4 Hours
<i>Oral</i>		
LD100	Rabbit	695 mg/kg
LD50	Dog	> 695 mg/kg
	Guinea pig	1200 mg/kg
	Rat	530 - 2800 mg/kg

Acute effects	Harmful if swallowed. Harmful in contact with skin. Harmful if inhaled.
Sensitization	This product is not expected to cause skin sensitization. Not a respiratory sensitizer.
Local effects	May produce corrosive solutions on contact with water.

Chronic effects	May be harmful if absorbed through skin. Prolonged exposure may cause 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	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
ACGIH Carcinogens	
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)	A3 Confirmed animal carcinogen with unknown relevance to humans.
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	Causes serious eye irritation. Risk of serious damage 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

Components		Species	Test Results
EDTA Tetrasodium Salt (CAS 64-02-8)			
Aquatic			
Algae	IC50	Algae	1.01 mg/L, 72 Hours
Fish	LC50	Bluegill (<i>Lepomis macrochirus</i>)	472 - 500 mg/l, 96 hours
Ethylene Glycol Monobutyl Ether (CAS 111-76-2)			
Aquatic			
Fish	LC50	Inland silverside (<i>Menidia beryllina</i>)	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	No data is available on the degradability of this product.		
Partition coefficient			
Butane			2.89
Ethylene Glycol Monobutyl Ether			0.83

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) 2.1
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
B1 - Flammable Gases
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)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	No
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	No
New Zealand	New Zealand Inventory	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. We 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: Alternate Trade Names