

MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product number RA009C
Product name Germicidal Cleaner
Effective date 01-Jul-2010
Company information Pro-Link, Inc.
Ottawa, Canada K1Z 1E9 Canada
Company phone General Assistance 1-800-74-LINKS
Emergency telephone US 1-866-836-8855
Emergency telephone outside US 703-527-3887
Version # 08
Supersedes date 04-Aug-2009
Expiry Date 30-Jun-2013

2. Hazards Identification

Emergency overview CAUTION
Aerosol. Will be easily ignited by heat, spark or flames.

Potential health effects
Routes of exposure Inhalation. Ingestion. Skin contact. Eye contact.
Eyes Moderately irritating to the eyes.
Skin Harmful if absorbed through the skin.
Inhalation Intentional misuse by concentrating and inhaling the product can be harmful or fatal. Harmful if inhaled.
Ingestion Exposure by ingestion of an aerosol is unlikely. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea.

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.
Kidney. Blood. Central nervous system. Liver. Respiratory system.

Chronic effects This product may be harmful if it is absorbed through the skin.

3. Composition / Information on Ingredients

Components	CAS #	Percent
2-Butoxyethanol	111-76-2	3 - 7
n-Butane	106-97-8	1 - 5
Tetrasodium Salt of EDTA	64-02-8	0.5 - 1.5
Non-hazardous and 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. If a contact lens is present, DO NOT delay irrigation or attempt to remove the lens. Get medical attention immediately.
Skin contact Immediately flush skin with plenty of water. Remove and isolate contaminated clothing and shoes. Get medical attention immediately. For minor skin contact, avoid spreading material on unaffected skin. Wash clothing separately before reuse.
Inhalation Move to fresh air. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Ingestion

Never give anything by mouth to a victim who is unconscious or is having convulsions. Do not induce vomiting without medical advice. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Do not use mouth-to-mouth method if victim ingested the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

5. Fire Fighting Measures

Flammable properties

Ruptured cylinders may rocket.

Extinguishing media**Suitable extinguishing media**

Large Fires: Water spray, fog or regular foam.

Small Fires: Dry chemical, CO₂, water spray or regular foam.

Unsuitable extinguishing media

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

Protection of firefighters**Protective equipment and precautions for firefighters**

Wear full protective clothing, including helmet, self-contained positive pressure or pressure demand breathing apparatus, protective clothing and face mask. Containers should be cooled with water to prevent vapor pressure build up. For massive fire, use unmanned hose holders or monitor nozzles; if this is impossible, withdraw from area and let fire burn. Cool containers with flooding quantities of water until well after fire is out.

Unusual fire & explosion hazards

Ruptured cylinders may rocket.

6. Accidental Release Measures

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. Many gases are heavier than air and will spread along ground and collect in low or confined areas (sewers, basements, tanks).

Methods for cleaning up

Clean up in accordance with all applicable regulations.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean contaminated surface thoroughly.

7. Handling and Storage

Handling

Pressurized container: Do not pierce or burn, even after use. Do not handle or store near an open flame, heat or other sources of ignition. When using do not smoke. Do not cut, weld, solder, drill, grind, or expose containers to heat, flame, sparks, or other sources of ignition. Do not use if spray button is missing or defective. Use only with adequate ventilation. Do not get this material in contact with eyes. Do not get this material in contact with skin. Do not breathe gas/fumes/vapor/spray. Do not get this material on clothing.

Storage

Level 1 Aerosol.

Contents under pressure. Do not puncture, incinerate or crush. The pressure in sealed containers can increase under the influence of heat. Avoid exposure to long periods of sunlight. Keep the container dry. Keep in an area equipped with sprinklers. Keep out of the reach of children. Level 1 Aerosol (NFPA 30B)

8. Exposure Controls / Personal Protection

Exposure limits**ACGIH****Components****CAS #****TWA****STEL****Ceiling**

2-Butoxyethanol

111-76-2

20 ppm

Not established

Not established

n-Butane

106-97-8

1000 ppm

Not established

Not established

Personal protective equipment**Eye / face protection**

Wear chemical goggles and face shield.

Skin protection

Wear appropriate chemical resistant gloves. Wear chemical protective equipment that is specifically recommended by the manufacturer.

Respiratory protection

Wear positive pressure self-contained breathing apparatus (SCBA).

9. Physical & Chemical Properties
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Appearance

Compressed liquefied gas.

Boiling point	212 °F (100 °C) estimated
Color	Pale yellow
Evaporation rate	Not available
Flammability (HOC)	3.4133 kJ/g estimated
Flammability limits in air, lower, % by volume	Not available
Flammability limits in air, upper, % by volume	Not available
Flash back	No
Flash point	-156 °F (-104.4 °C)
Form	Aerosol.
Freezing point	Not available
Odor	fruity
Odor threshold	Not available
pH	11.76 - 12.76
Physical state	Liquid.
Pressure	46 - 56 psig @70F
Specific gravity	0.9789

10. Chemical Stability & Reactivity Information

Chemical stability	Risk of ignition. Stable at normal conditions.
Conditions to avoid	Avoid high temperatures.
Incompatible materials	None known.
Hazardous decomposition products	May include oxides of oxides of carbon.

11. Toxicological Information

Acute effects	Acute LD50: 4536 mg/kg estimated, Rat, Dermal Acute LC50: 44 mg/l/4h estimated, Rat, Inhalation
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Component analysis - LD50

Toxicology Data - Selected LD50s and LC50s

2-Butoxyethanol	111-76-2	Inhalation LC50 Rat 2.21 mg/L 4 h; Inhalation LC50 Rat 450 ppm 4 h; Oral LD50 Rat 470 mg/kg; Dermal LD50 Rat 2270 mg/kg; Dermal LD50 Rabbit 220 mg/kg
n-Butane	106-97-8	Inhalation LC50 Rat 658 mg/L 4 h
Tetrasodium Salt of EDTA	64-02-8	Oral LD50 Rat 10 g/kg

Sensitization	Not expected to be hazardous by WHMIS criteria.
Carcinogenicity	Not expected to be hazardous by WHMIS criteria.

ACGIH - Threshold Limit Values - Carcinogens

2-Butoxyethanol	111-76-2	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans
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Mutagenicity	Not expected to be hazardous by WHMIS criteria.
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Teratogenicity	Not expected to be hazardous by WHMIS criteria.
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Chronic toxicity	This product may be harmful if it is absorbed through the skin.
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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.

12. Ecological Information

Ecotoxicity	LC50 1165 mg/L estimated, Fish, 96.00 Hours, EC50 17731 mg/L estimated, Daphnia, 48.00 Hours, IC50 86.05 mg/L estimated, Algae, 72.00 Hours, Components of this product have been identified as having potential environmental concerns.
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13. Disposal Considerations

Disposal instructions	Contents under pressure. Do not allow this material to drain into sewers/water supplies. If discarded, this product is considered a RCRA ignitable waste, D001. Dispose in accordance with all applicable regulations.
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14. Transport Information

Canadian Transportation of Dangerous Goods (TDG) Requirements

Proper shipping name	AEROSOLS, flammable
Hazard class	2.1
UN number	UN1950
Marine pollutant	.
Special provisions	80 SOR/2002-306
Packaging exceptions	If <1L: Consumer Commodity



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.

Canada - WHMIS - Ingredient Disclosure List

2-Butoxyethanol	111-76-2	1 %
n-Butane	106-97-8	1 %

WHMIS status Controlled

WHMIS classification A - Compressed Gas
D2B - Other Toxic Effects-TOXIC

WHMIS labeling



Inventory status

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

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.

Prepared by Regulatory Compliance