

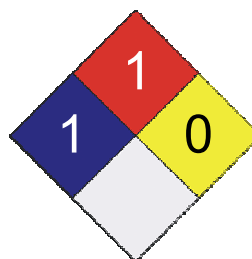
# MATERIAL SAFETY DATA SHEET

## 1. Product and Company Identification

**Product Name** 050 – RA001C Pro Link Glass Cleaner  
**CAS #** Mixture  
**Product Use** Glass Cleaner  
**Manufacturer** Pro-Link, Inc.  
Ottawa, ON K1Z 1E9  
Canada  
Phone: 1-800-74-LINKS  
Emergency Phone: 1-866-836-8855

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	* 1
Flammability	1
Physical Hazard	0
Personal Protection	X



## 2. Hazards Identification

**Emergency Overview** DANGER  
EYE AND SKIN IRRITANT.  
Contains a potential teratogen.  
Contains a potential mutagen.  
May be ignited by heat, sparks or flames. Contents under pressure. Containers may explode when heated.

**Potential short term health effects**

**Routes of exposure** Eye, Skin contact, Skin absorption, Inhalation, Ingestion.

**Eyes** May cause irritation.

**Skin** May cause irritation. May be absorbed through the skin.

**NIOSH - Pocket Guide - Skin Notations**  
Ethylene glycol monobutyl ether 111-76-2 Potential for dermal absorption

**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion** Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

**Target organs** Blood. Eyes. Kidney. Liver. Respiratory system. Skin.

**Chronic effects** Prolonged or repeated exposure can cause drying, defatting and dermatitis.

**Signs and symptoms** Symptoms may include redness, oedema, drying, defatting and cracking of the skin. Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.

## 3. Composition/Information on Ingredients

Ingredient(s)	CAS #	Percent
Methyl alcohol	67-56-1	0.1 - 1
Propane	74-98-6	1 - 5
Ethylene glycol monobutyl ether	111-76-2	1 - 5
Ethanol	64-17-5	1 - 5
Butane	106-97-8	1 - 5

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## 4. First Aid Measures

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### First aid procedures

<b>Eye contact</b>	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
<b>Skin contact</b>	Flush with cool water. Wash with soap and water. Obtain medical attention if irritation persists.
<b>Inhalation</b>	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
<b>Ingestion</b>	Do not induce vomiting. Rinse mouth with water, then drink one or two glasses of water. Obtain medical attention. Never give anything by mouth if victim is unconscious, or is convulsing.

### Notes to physician

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.

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## 5. Fire-fighting Measures

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<b>Flammable properties</b>	Non-flammable aerosol by flame projection test. Containers may explode when heated.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical. Carbon dioxide. Foam.
<b>Unsuitable extinguishing media</b>	Do not use a solid water stream as it may scatter and spread fire.
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Contents under pressure. Pressurized container may explode when exposed to heat or flame. Cool containers with flooding quantities of water until well after fire is out.
<b>Protective equipment for firefighters</b>	Firefighters should wear full protective clothing including self contained breathing apparatus.
<b>Hazardous combustion products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

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## 6. Accidental Release Measures

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<b>Personal precautions</b>	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
<b>Methods for containment</b>	Eliminate all ignition sources (no smoking, flares, sparks, or flames in immediate area). Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Before attempting clean up, refer to hazard data given above. Remove sources of ignition. Although the chance of a significant spill or leak is unlikely in aerosol containers, in the event of such an occurrence, absorb spilled material with a non-flammable absorbent such as sand or vermiculite.

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## 7. Handling and Storage

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<b>Handling</b>	Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Do not store at temperatures above 49°C (120.2°F). Keep away from heat, open flames or other sources of ignition.

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## 8. Exposure Controls / Personal Protection

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### Exposure limits

Ingredient(s)	Exposure limits
Butane	<b>ACGIH-TLV</b> TWA: 1000 ppm
Ethanol	<b>ACGIH-TLV</b> TWA: 1000 ppm
Ethylene glycol monobutyl ether	<b>ACGIH-TLV</b> TWA: 20 ppm
Methyl alcohol	<b>ACGIH-TLV</b> TWA: 200 ppm STEL: 250 ppm
Propane	<b>ACGIH-TLV</b> TWA: 1000 ppm

### Engineering controls

General ventilation normally adequate.

### Personal protective equipment

#### Eye/Face protection

Wear safety glasses with side shields.

#### Hand protection

Rubber gloves. Confirm with a reputable supplier first.

#### Skin and body protection

As required by employer code.

#### Respiratory protection

Where exposure guideline levels may be exceeded, use an approved NIOSH respirator. Avoid breathing mists or vapours.

#### General hygiene considerations

Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink. Wash hands and face before breaks and immediately after handling the product.

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## 9. Physical & Chemical Properties

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Appearance	Compressed liquefied gas
Colour	Clear Colourless - Light Yellow
Form	Misty spray
Odour	butyl
Odour threshold	Not available
Physical state	Gas
pH	10
Freezing point	Not available
Boiling point	96.00 °C (204.8 °F) (estimated)
Flash point	< -17.77 °C (< 0 °F) (Concentrate)
Evaporation Rate	Not available
Flammability limits in air, lower, % by volume	Not available
Flammability Limits in Air, Upper, % by Volume	Not available
Vapour pressure	591 kPa
Vapour density	Not available
Specific gravity	0.9854 (Concentrate)
Octanol/water coefficient	Not available
Solubility (H <sub>2</sub> O)	Complete
Auto-ignition temperature	Not available
VOC (Weight %)	Not available
Viscosity	Slightly viscous

## 10. Chemical Stability & Reactivity Information

<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Aerosol containers are unstable at temperatures above 49°C (120.2°F). Do not mix with other chemicals.
<b>Incompatible materials</b>	Caustics. Acids. Oxidizers.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon. Oxides of nitrogen.
<b>Possibility of hazardous reactions</b>	Hazardous polymerisation does not occur.

## 11. Toxicological Information

### Component analysis - LC50

Ingredient(s)	LC50
Butane	Not available
Ethanol	31623 ppm rat
Ethylene glycol monobutyl ether	2.21 mg/l/4h rat
Methyl alcohol	83.2 mg/l/4h rat
Propane	Not available

### Component analysis - Oral LD50

Ingredient(s)	LD50
Butane	Not available
Ethanol	3450 mg/kg mouse; 1501 mg/kg rat
Ethylene glycol monobutyl ether	470 mg/kg rat; 320 mg/kg rabbit
Methyl alcohol	5628 mg/kg rat; 7300 mg/kg mouse; 14200 mg/kg rabbit; 7600 mg/kg Monkey
Propane	Not available

### Effects of acute exposure

<b>Eye</b>	May cause irritation.
<b>Skin</b>	May cause irritation. May be absorbed through the skin.

#### NIOSH - Pocket Guide - Skin Notations

Ethylene glycol monobutyl ether	111-76-2	Potential for dermal absorption
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**Inhalation** Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).

**Ingestion** Not a normal route of exposure. May cause stomach distress, nausea or vomiting.

**Sensitisation** Non-hazardous by WHMIS criteria.

**Chronic effects** Non-hazardous by WHMIS criteria.

**Carcinogenicity** Non-hazardous by WHMIS criteria.

#### ACGIH - Threshold Limits Values - Carcinogens

Ethanol	64-17-5	A4 - Not Classifiable as a Human Carcinogen
Ethylene glycol monobutyl ether	111-76-2	A3 - Confirmed animal carcinogen with unknown relevance to humans.

#### IARC - Group 3 (Not Classifiable)

Ethylene glycol monobutyl ether	111-76-2	Monograph 88 [2006]
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**Mutagenicity** Mutagenic effects were observed in somatic and reproductive cells of live animals (rats and mice) exposed to high oral doses of ethanol.

**Reproductive effects** Non-hazardous by WHMIS criteria.

**Teratogenicity** Methanol has produced teratogenic effects in mice exposed by inhalation to high concentrations that did not produce significant maternal toxicity.

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## 12. Ecological Information

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<b>Ecotoxicity effects</b>	Components of this product have been identified as having potential environmental concerns.	
<b>Ecotoxicity - Freshwater Fish Species Data</b>		
Ethanol	64-17-5	96 Hr LC50 Oncorhynchus mykiss: 12900 mg/L [flow-through] (30 days old); 96 Hr LC50 Pimephales promelas: 14.2 mg/L
Ethylene glycol monobutyl ether	111-76-2	96 Hr LC50 Lepomis macrochirus: 1490 mg/L [static]
<b>Ecotoxicity - Microtox Data</b>		
Ethanol	64-17-5	5 min EC50 Photobacterium phosphoreum: 35470 mg/L; 30 min EC50 Photobacterium phosphoreum: 34634 mg/L
<b>Ecotoxicity - Water Flea Data</b>		
Ethanol	64-17-5	48 Hr EC50 Daphnia magna: 9268 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L
Ethylene glycol monobutyl ether	111-76-2	24 Hr EC50 water flea: 1720 mg/L; 24 Hr LC50 Daphnia magna: 1698-1940 mg/L
<b>Environmental effects</b>	Not available	
<b>Aquatic toxicity</b>	Not available	
<b>Persistence and degradability</b>	Not available	
<b>Bioaccumulation/accumulation</b>	Not available	
<b>Partition coefficient</b>	Not available	
<b>Mobility in environmental media</b>	Not available	
<b>Chemical fate information</b>	Not available	

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## 13. Disposal Considerations

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<b>Waste codes</b>	Not available
<b>Disposal instructions</b>	Dispose in accordance with all applicable regulations.
<b>Waste from residues / unused products</b>	Not available
<b>Contaminated packaging</b>	Not available

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## 14. Transport Information

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<b>Transportation of Dangerous Goods (TDG)</b>	
<b>Basic shipping requirements:</b>	
<b>Proper shipping name</b>	AEROSOLS, non-flammable
<b>Hazard class</b>	2.2
<b>UN number</b>	UN1950
<b>Additional information:</b>	
<b>Special provisions</b>	80
<b>Packaging exceptions</b>	<1L - Consumer Commodity



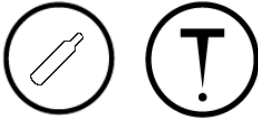
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## 15. Regulatory Information

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<b>Canadian federal regulations</b>	This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.	
<b>Canada - WHMIS - Ingredient Disclosure List</b>		
Butane	106-97-8	1 %
Ethanol	64-17-5	0.1 %
Ethylene glycol monobutyl ether	111-76-2	1 %
<b>WHMIS classification</b>	Class A - Compressed Gas, Class D - Division 2A, 2B	
<b>WHMIS status</b>	Controlled	

**WHMIS labeling**



**Inventory Status**

<b>Country(s) or region</b>	<b>Inventory Name</b>	<b>On Inventory (Yes/No)*</b>
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

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## 16. Other Information

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**Disclaimer**

Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.

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