



## MATERIAL SAFETY DATA SHEET

### 1. Product And Company Identification

**Product Name:** CaviCide®  
**Manufacturer:** METREX® RESEARCH  
28210 Wick Rd  
Romulus, MI 48174  
U.S.A.

**Information Phone Number:** 1-800-841-1428 (Customer Service)

**Chemical Emergency Phone Number (Chemical Spills, Leaks, Fire, Exposure or Accident only):**  
CHEMTREC 1-800-424-9300 (in the US) 1-703-527-3887 (Outside the US)

**MSDS Date Of Preparation/Revision:** 7/9/2012  
**Product Use:** Hard surface cleaner and disinfectant.  
**EPA Registration No:** 46781-6

### 2. Hazards Identification

Clear liquid with an alcohol odor.

### EMERGENCY OVERVIEW

Flammable liquid and vapor. Causes moderate eye irritation. May cause mild skin irritation. Harmful if absorbed through the skin. Inhalation of concentrated vapors may cause irritation of the eyes, nose and throat and dizziness and drowsiness. Prolonged overexposure to ethylene glycol monobutyl ether may affect liver, kidneys, blood, lymphatic system or central nervous system.

### 3. Composition/Information On Ingredients

Component	CAS No.	Amount
Isopropanol	67-63-0	17.2%
Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)	111-76-2	1-5%
Diisobutylphenoxyethoxyethyl dimethylbenzyl ammonium chloride	121-54-0	0.28%
Water	7732-18-5	70-80%

### 4. First Aid Measures

**Inhalation:** Move to fresh air if effects occur and seek medical attention if effects persist.

**Skin Contact:** Remove contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for further treatment advice.



**Eye Contact:** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing. Call a poison control center or doctor for treatment advice.

**Ingestion:** If swallowed, get medical advice by calling a Poison Control Center or hospital emergency room. If advice is not available, take victim and product container to the nearest emergency treatment center or hospital. Do not attempt to give anything by mouth to an unconscious person.

## 5. Fire Fighting Measures

**Extinguishing Media:** Use water spray or fog, alcohol-resistant foam, carbon dioxide or dry chemical. Cool fire exposed containers with water.

**Special Fire Fighting Procedures:** Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

**Unusual Fire Hazards:** Flammable liquid and vapor. May form explosive mixtures in air at temperatures at or above the flashpoint. Flammable vapors may collect in confined areas. Vapors are heavier than air and may travel along surfaces to remote ignition sources and flashback. Fire exposed containers may rupture explosively.

**Hazardous Combustion Products:** Burning may produce carbon monoxide, carbon dioxide, nitrogen oxides, amines, chlorine and hydrogen chloride.

## 6: Accidental Release Measures

Eliminate all ignition sources. Ventilate area. Use explosion-proof equipment if large amounts are released. Stop leak if it is safe to do so and move containers from the spill area. Wear appropriate protective clothing and equipment (See Section 8). Collect material with an inert absorbent material and place in appropriate, labeled container for disposal. Refer to Section 13 for disposal advice.

## 7. Handling and Storage

Do not get in eyes or on clothing. Wear appropriate eye protection when handling (see Section 8). Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing before reuse.

Flammable liquid and vapor. Keep away from heat, sparks, open flames and all other sources of ignition. Do not smoke in storage or use areas. Keep containers closed when not in use. Do not reuse empty containers.

Store in a cool, well-ventilated area away from heat, oxidizers and all sources of ignition. Do not contaminate water, food or feed by storage. Empty containers retain product residues and may be hazardous. Do not flame cut, drill, weld, etc. on or near empty containers, even empty.

<b>8. Exposure Controls / Personal Protection</b>
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**Exposure Limits**

Chemical	Exposure Limit
Isopropanol	200 ppm TWA, 400 ppm STEL ACGIH TLV 400 ppm TWA OSHA PEL
Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)	20 ppm TWA ACGIH TLV 50 ppm skin TWA OSHA PEL
Diisobutylphenoxyethoxyethyl dimethyl benzylammonium chloride	None Established

**Ventilation:** General ventilation should be adequate for normal use. For operations where the exposure limits may be exceeded, mechanical ventilation such as local exhaust may be needed to minimize exposure.

**Respiratory Protection:** None under normal use conditions with adequate ventilation. For operations where the occupational exposure limits are exceeded, a NIOSH/MSHA approved respirator with an organic vapor cartridges or supplied air respirator is recommended. Equipment selection depends on contaminant type and concentration. Select in accordance with 29 CFR 1910.134 and good industrial hygiene practice. For firefighting, use self-contained breathing apparatus.

**Gloves:** Impervious gloves such as butyl rubber or nitrile are recommended for operations which may result in prolonged or repeated skin contact.

**Eye Protection:** Splash proof goggles, face shield, or safety glasses are recommended to prevent eye contact.

**Other Protective Equipment/Clothing:** Wear protective clothing if needed to avoid prolonged/repeated skin contact. Suitable washing and eye flushing facilities should be available in the work area. Contaminated clothing should be removed and laundered before re-use.

<b>9. Physical and Chemical Properties</b>
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**Appearance And Odor:** Clear liquid with an alcohol odor.

Boiling Point:	Not Determined	Specific Gravity:	0.972
Solubility in Water:	Complete	pH:	11.0 -12.49
Vapor Pressure:	43.3 mmHg @ 20°C (isopropanol)	Vapor Density:	2.1 (isopropanol)
Percent Volatile:	>95%	Melting/Freezing Point:	Not Determined
Coefficient of Water/Oil Distribution:	Not Determined		
Flash Point:	28.3°C (83°F)	Flammable Limits:	LEL: 2% UEL: 12.7%

<b>10. Stability and Reactivity</b>
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**Stability:** Stable

**Conditions To Avoid:** Heat, sparks, flames and all other sources of ignition.



**Incompatibility:** Strong oxidizing agents, acids and strong reducing agents.

**Hazardous Decomposition Products:** Thermal decomposition will produce carbon monoxide, carbon dioxide, nitrogen oxides, amines, chlorine and hydrogen chloride.

**Hazardous Polymerization:** Will not occur.

## 11. Toxicological Information

### Potential Health Effects:

#### Acute Hazards:

**Inhalation:** May cause irritation of the nose, throat and upper respiratory tract. High vapor concentrations may produce nausea, vomiting, headache, dizziness, drowsiness, weakness, fatigue, narcosis and possible unconsciousness. Not acutely toxic in rats.

**Skin Contact:** Prolonged or repeated exposure may cause mild irritation. No signs of toxicity or irritation were observed in a dermal toxicity study in rabbits. Non-irritating in a primary irritation study with rabbits. Negative in a skin sensitization study with guinea pigs.

**Eye Contact:** May cause irritation with tearing, redness and pain. Moderate irritant in an eye irritation study with rabbits. Effects reversed in 7 days.

**Ingestion:** Ingestion may cause gastrointestinal disturbances and central nervous system effects such as headache, dizziness, drowsiness and nausea. Not acutely toxic in rats.

**Chronic Hazards:** Prolonged overexposure to ethylene glycol monobutyl ether may affect liver, kidneys, blood, lymphatic system or central nervous system.

**Medical Conditions Aggravated By Exposure:** Due to its defatting properties, isopropyl alcohol may aggravate an existing skin condition.

**Carcinogen:** None of the components is listed as a carcinogen or potential carcinogen by IARC, NTP, ACGIH, or OSHA.

#### Acute Toxicity Values for CaviCide:

LD50 Oral Rat >5000 mg/kg

LD50 Dermal Rabbit >2000 mg/kg

LC50 inhalation LC50 rat >2.08 mg/L

## 12. Ecological Information

This product is not classified as aquatically toxic based on the GHS criteria for aquatic toxicity.

### Toxicity:

Isopropanol: LC50 fathead minnows 11,130 mg/L/48 hr; LC50 brown shrimp 1400 mg/L/48 hr  
Diisobutylphenoxyethoxyethyl dimethylbenzylammonium chloride: LC50 pimephales promelas 1.6 mg/L/96 hr, LC50 lepomis macrochirus 1.4 mg/L/96 hr.

**Persistence and degradability:** Isopropanol and 2-butoxyethanol are readily biodegradable in screening tests. Diisobutylphenoxyethoxyethyl dimethylbenzylammonium chloride is not readily



biodegradable.

**Bioaccumulative Potential:** Isopropanol has an estimated BCF of 3 suggesting that the potential for bioaccumulation is low.

**Mobility in Soil:** Isopropanol is expected to have very high mobility in soil.

### 13. Disposal Considerations

Do not contaminate water, food, or feed by storage and disposal.

**Pesticide Disposal:** Unused product or wastes resulting from the use of this product may be disposed of according to applicable Federal, State, or local procedures.

**Container Disposal:** Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available.

### 14. Transport Information

#### U.S. DOT Hazard Classification

Proper Shipping Name: Not Regulated per alcohol exception (49CFR 173.150(e))

Technical Name: N/A

UN Number: N/A

Hazard Class/Packing Group: N/A

Labels Required: N/A

DOT MARINE POLLUTANTS: This product does not contain Marine Pollutants as defined in 49 CFR 171.8.

#### IMDG Code Shipping Classification

Proper Shipping Name: Alcohols, n.o.s. (Isopropanol)

UN Number: UN1987

Hazard Class: 3

Packing Group: III

Labels Required: Flammable Liquid (Class 3)

Placards Required: Class 3

Not classified as a marine pollutant

#### ICAO Air Transport Classification

Proper Shipping Name: Alcohols, n.o.s. (Isopropanol)

ID Number: UN1987

Hazard Class: 3

Packing Group: III

Labels Required: Class 3

### 15. Regulatory Information

**EPA SARA 311/312 Hazard Classification:** Fire Hazard, Acute Health, Chronic Health

**EPA SARA 313:** This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372):

Ethylene Glycol Monobutyl Ether (Glycol Ether) 1-5%



**Protection Of Stratospheric Ozone:** This product is not known to contain or to have been manufactured with ozone depleting substances as defined in 40 CFR Part 82, Appendix A to Subpart A.

**CERCLA SECTION 103:** This product is not subject to CERCLA reporting requirements; however, many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**EPA TSCA Inventory:** All of the components of this material are listed on the Toxic Substances Control Act (TSCA) Chemical Substances Inventory or exempt.

<b>16. Other Information</b>
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NFPA Rating: Fire: 3                      Health: 2                      Instability: 0

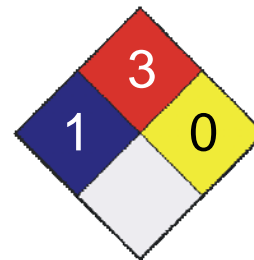
The information and recommendations set forth herein are taken from sources believed to be accurate as of the date of preparation, however, METREX® RESEARCH makes no warranty with respect to the accuracy or suitability of the recommendations, and assumes no liability to any use thereof.

## 1. Product and Company Identification

**Product Name** Sani-Hands ALC Antimicrobial Alcohol Gel Hand Wipes **MSDS0027**  
**CAS #** Mixture  
**Product use** Antimicrobial  
**Manufacturer** Professional Disposables International, Inc.  
 Two Nice-Pak Park  
 Orangeburg, NY 10962-1376  
 or Distributed by:  
 Professional Disposables International Ltd. Ontario CA  
 Phone (USA) 1-845-365-1700 (M-F 8am - 5pm)  
 Phone (CANADA) 1-800-263-7067

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

Health	* 1
Flammability	3
Physical Hazard	0
Personal Protection	



## 2. Hazards Identification

**Emergency overview** For external use only. Avoid contact with eyes.  
 WARNING  
 FLAMMABLE SOLID. Keep away from fire or flame.  
 Irritating to eyes.  
 Contains a potential mutagen.

**Potential short term health effects**

- Routes of exposure** Eye, Skin contact, Inhalation, Ingestion.
- Eyes** May cause irritation.
- Skin** Non-irritating based on test data. Not a skin sensitizer based on test data.
- 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. Liver. Respiratory system.

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

**Signs and symptoms** Symptoms may include redness, edema, 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
Alcohol	64-17-5	60 - 80
<b>Composition comments</b>	Active ingredients are listed above.	

## 4. First Aid Measures

**First aid procedures**

- Eye contact** Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
- Skin contact** Discontinue use if irritation and redness develop. If condition persists for more than 72 hours, consult a physician.

<b>Inhalation</b>	If symptoms develop move victim to fresh air. If symptoms persist, obtain medical attention.
<b>Ingestion</b>	If swallowed, get medical help or contact a Poison Control Center immediately.
<b>Notes to physician</b>	Symptoms may be delayed.
<b>General advice</b>	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. Keep out of reach of children.

## 5. Fire Fighting Measures

<b>Flammable properties</b>	Flammable solid.
<b>Extinguishing media</b>	
<b>Suitable extinguishing media</b>	Dry chemical. Alcohol foam. Carbon dioxide.
<b>Unsuitable extinguishing media</b>	Not available
<b>Protection of firefighters</b>	
<b>Specific hazards arising from the chemical</b>	Not available
<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.
<b>Explosion data</b>	
<b>Sensitivity to mechanical impact</b>	Not available
<b>Sensitivity to static discharge</b>	Not available

## 6. Accidental Release Measures

<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>	Prevent entry into waterways, sewers, basements or confined areas.
<b>Methods for cleaning up</b>	Remove sources of ignition. Pick up and discard towel.
<b>Other information</b>	Pick up and discard towel.

## 7. Handling and Storage

<b>Handling</b>	Use according to package label instructions. Use good industrial hygiene practices in handling this material.
<b>Storage</b>	Keep out of reach of children. Store at room temperature in the original container.

## 8. Exposure Controls / Personal Protection

<b>Exposure limits</b>	
<b>Ingredient(s)</b>	<b>Exposure Limits</b>
Alcohol	<b>ACGIH-TLV</b> TWA: 1000 ppm <b>OSHA-PEL</b> TWA: 1000 ppm
<b>Engineering controls</b>	General ventilation normally adequate.
<b>Personal protective equipment</b>	
<b>Eye / face protection</b>	Not normally required. Avoid contact with eyes.
<b>Hand protection</b>	Not required.
<b>Skin and body protection</b>	As required by employer code.
<b>Respiratory protection</b>	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
<b>General hygiene considerations</b>	Handle in accordance with good industrial hygiene and safety practice. When using do not eat or drink.



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## 9. Physical & Chemical Properties

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<b>Appearance</b>	Liquid saturated on wipe
<b>Color</b>	Clear, colorless on a wipe
<b>Form</b>	Pre-moistened towelette.
<b>Odor</b>	Alcohol
<b>Odor threshold</b>	Not available
<b>Physical state</b>	Pre-moistened towelette
<b>pH</b>	Not available
<b>Freezing point</b>	Not available
<b>Boiling point</b>	Not available
<b>Flash point</b>	23.33 °C (74 °F) (Liquid)
<b>Evaporation rate</b>	Not available
<b>Flammability limits in air, lower, % by volume</b>	Not available
<b>Flammability limits in air, upper, % by volume</b>	Not available
<b>Vapor pressure</b>	Not available
<b>Vapor density</b>	Not available
<b>Specific gravity</b>	0.893 (Liquid)
<b>Octanol/water coefficient</b>	Not available
<b>Solubility (H2O)</b>	Pad is not soluble in water
<b>Auto-ignition temperature</b>	Not available
<b>VOC (Weight %)</b>	The liquid is a volatile.
<b>Viscosity</b>	Not available
<b>Percent volatile</b>	Not available

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## 10. Chemical Stability & Reactivity Information

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<b>Chemical stability</b>	Stable under recommended storage conditions.
<b>Conditions to avoid</b>	Avoid high temperatures. Do not mix with other chemicals.
<b>Incompatible materials</b>	Acids. Oxidizers. Caustics.
<b>Hazardous decomposition products</b>	May include and are not limited to: Oxides of carbon.
<b>Possibility of hazardous reactions</b>	Hazardous polymerization does not occur.

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## 11. Toxicological Information

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### Component analysis - LC50

Ingredient(s)	LC50
Alcohol	31623 ppm rat

### Component analysis - Oral LD50

Ingredient(s)	LD50
Alcohol	3450 mg/kg mouse; 1501 mg/kg rat

### Effects of acute exposure

<b>Eye</b>	May cause irritation.
<b>Skin</b>	Non-irritating based on test data. Not a skin sensitizer based on test data.
<b>Inhalation</b>	Excessive intentional inhalation may cause respiratory tract irritation and central nervous system effects (headache, dizziness).
<b>Ingestion</b>	Not a normal route of exposure. May cause stomach distress, nausea or vomiting.
<b>Sensitization</b>	Non-hazardous by OSHA criteria.
<b>Chronic effects</b>	Non-hazardous by OSHA criteria.
<b>Carcinogenicity</b>	Non-hazardous by OSHA criteria.

### ACGIH - Threshold Limits Values - Carcinogens

Alcohol	64-17-5	A4 - Not Classifiable as a Human Carcinogen
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<b>Mutagenicity</b>	Mutagenic effects were observed in somatic and reproductive cells of live animals (rats and mice) exposed to high oral doses of ethanol.
<b>Reproductive effects</b>	Non-hazardous by OSHA criteria.
<b>Teratogenicity</b>	Non-hazardous by OSHA criteria.

## 12. Ecological Information

<b>Ecotoxicity</b>	Components of this product have been identified as having potential environmental concerns.	
<b>Ecotoxicity - Freshwater Fish Species Data</b>		
Alcohol	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
<b>Ecotoxicity - Microtox Data</b>		
Alcohol	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>		
Alcohol	64-17-5	48 Hr EC50 Daphnia magna: 9268 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L
<b>Environmental effects</b>	Not available	
<b>Aquatic toxicity</b>	Not available	
<b>Persistence / degradability</b>	This product is not readily biodegradable.	
<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	

## 13. Disposal Considerations

<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

## 14. Transport Information

<b>Department of Transportation (DOT)</b>	
<b>Basic shipping requirements:</b>	
<b>Proper shipping name</b>	Solids containing flammable liquid, n.o.s. (ETHANOL)
<b>Hazard class</b>	4.1
<b>UN number</b>	UN3175
<b>Packing group</b>	II
<b>Additional information:</b>	
<b>Special provisions</b>	47, IB6, IP2, T3, TP33
<b>Packaging exceptions</b>	<1Kg-Consumer Commodity ORM-D
<b>ERG number</b>	133



## 15. Regulatory Information

<b>US Federal regulations</b>	This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. CERCLA/SARA Hazardous Substances - Not applicable.	
<b>Occupational Safety and Health Administration (OSHA)</b>		
<b>29 CFR 1910.1200 hazardous chemical</b>	Yes	
<b>CERCLA (Superfund) reportable quantity</b>		
	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** Yes

**Clean Air Act (CAA)** Not available

**Clean Water Act (CWA)** Not available

**Safe Drinking Water Act (SDWA)** Not available

**Drug Enforcement Agency (DEA)** Not available

**Food and Drug Administration (FDA)** Not available

### Inventory status

Country(s) or region	Inventory name	On inventory (yes/no)*
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

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

### State regulations

This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

#### U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Alcohol 64-17-5 Present (refers to solutions greater than or equal to 25% which are not beverage alcohols)

#### U.S. - California - Proposition 65 - Developmental Toxicity

Alcohol 64-17-5 developmental toxicity, initial date 10/1/87 (when in alcoholic beverages)

#### U.S. - Massachusetts - Right To Know List

Alcohol 64-17-5 Teratogen

#### U.S. - Minnesota - Hazardous Substance List

Alcohol 64-17-5 Present

#### U.S. - New Jersey - Right to Know Hazardous Substance List

Alcohol 64-17-5 sn 0844

#### U.S. - Pennsylvania - RTK (Right to Know) List

Alcohol 64-17-5 Present

#### U.S. - Rhode Island - Hazardous Substance List

Alcohol 64-17-5 Toxic; Flammable

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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.

### Recommended use

For external use only. Keep away from children, unless under adult supervision.

### Issue date

29-Nov-2007

### Effective date

30-Nov-2007

### Prepared by

Dell Tech Laboratories Ltd. (519) 858-5021