



MATERIAL SAFETY DATA SHEET

1. Product And Company Identification

Product Name: CaviWipes1™

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: 6/1/2012

Product Use: Hard surface cleaner and disinfectant wipe.

EPA Registration No: 46781-13

2. Hazards Identification

Hazy to clear liquid with an alcohol odor on a white towelette.

EMERGENCY OVERVIEW

Liquid saturant is a flammable liquid and vapor. Causes substantial but temporary eye injury. May cause mild skin irritation. 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

The following composition refers to the liquid saturant

| Component | CAS No. | Amount |
|---|-----------|--------|
| Isopropanol | 67-63-0 | 15% |
| Ethanol | 64-17-5 | 7.5% |
| Ethylene Glycol Monobutyl Ether (2-Butoxyethanol) | 111-76-2 | 1-5% |
| Didecyldimethylammonium chloride | 7173-51-5 | 0.76% |
| 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. Flush thoroughly with water. If skin irritation or redness develops and persists, seek medical attention.



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 liquid is 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 induce vomiting. 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: Liquid saturant is a flammable liquid and vapor. Flammable vapors may collect in confined areas if large amounts are used.

Hazardous Combustion Products: Burning may produce carbon monoxide, carbon dioxide, ammonia, chlorine and hydrogen chloride.

6: Accidental Release Measures

Eliminate all ignition sources. Ventilate area. Use explosion-proof equipment if large amounts are released. Wear appropriate protective clothing and equipment (See Section 8). Collect spilled liquid material with an inert absorbent material and collect spilled wipes and place in appropriate, labeled container for disposal. Do not reuse towelette. Refer to Section 13 for disposal advice.

7. Handling and Storage

Avoid contact with eyes. 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.

Liquid saturant is a flammable liquid and vapor. Keep away from heat, sparks, open flames and all other sources of ignition. Keep containers closed when not in use. Do not reuse towelette.

Store in a cool, well ventilated area away from heat, oxidizers and all sources of ignition.



8. Exposure Controls / Personal Protection

Exposure Limits

| Chemical | Exposure Limit |
|---|---|
| Isopropanol | 200 ppm TWA, 400 ppm STEL ACGIH TLV 400 ppm TWA OSHA PEL |
| Ethanol | 1000 ppm STEL ACGIH TLV 1000 ppm TWA OSHA PEL |
| Ethylene Glycol Monobutyl Ether (2-Butoxyethanol) | 20 ppm TWA ACGIH TLV 50 ppm skin TWA OSHA PEL |
| Didecyldimethylammonium 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: None required for normal use. If liquid splashing is possible, wear splash proof goggles to prevent eye contact.

Other Protective Equipment/Clothing: None required for normal use. 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.

9. Physical and Chemical Properties

Appearance And Odor: Hazy to clear liquid with an alcohol odor on a white towelette. The following data applies to the liquid saturant.

| | | | |
|--|-------------------------|-------------------------|--------------------|
| Boiling Point: | Not Determined | Specific Gravity: | 0.964 |
| Solubility in Water: | Complete | pH: | 8.5 -12.49 |
| Vapor Pressure: | 19 kPa @ 20°C (ethanol) | Vapor Density: | 5.87 (ethanol) |
| Percent Volatile: | >95% | Melting/Freezing Point: | Not Determined |
| Coefficient of Water/Oil Distribution: | Not Determined | | |
| Flash Point: | 34.4°C (93.4°F) | Flammable Limits: | LEL: 2.5% UEL: 19% |



10. Stability and Reactivity

Stability: Stable

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

Incompatibility: Strong oxidizing agents, acids and strong alkalis.

Hazardous Decomposition Products: Thermal decomposition will produce carbon monoxide, carbon dioxide, ammonia, chlorine and hydrogen chloride.

Hazardous Polymerization: Will not occur.

11. Toxicological Information

Potential Health Effects:

The following applies to the liquid saturant. The towelette is not hazardous.

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 rats. Slightly 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 10 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. Prolonged or repeated exposure to ethanol may cause liver and kidney effects. Consumption of ethyl alcohol during pregnancy may cause mental retardation and other birth defects.

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

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

Acute Toxicity Values for CaviWipes1:

LD50 Oral Rat >5050 mg/kg

LD50 Dermal Rat >5000 mg/kg

LC50 inhalation LC50 rat >2.16 mg/L



12. Ecological Information

This product is classified as Acute and Chronic Aquatic Toxicity Category 3 based on the GHS criteria for aquatic toxicity. Harmful to aquatic life with long lasting effects.

Toxicity:

Ethanol: LC50 rainbow trout 13000 mg/L/96 hr; LC50 daphnia magna 9268-14221 mg/L/48 hr; EC50 Chlorella pyrenoidosa (Green algae; growth inhibition) 9310 mg/L/48 hr

Isopropanol: LC50 fathead minnows 11,130 mg/L/48 hr; LC50 brown shrimp 1400 mg/L/48 hr

Didecyldimethylammonium chloride: LC50 bluegill sunfish 0.32 mg/L/96 hr, EC50 daphnia magna 0.94 mg/L/48 hr.

Persistence and degradability: Ethanol, isopropanol and didecyldimethylammonium chloride are readily biodegradable in screening tests.

Bioaccumulative Potential: Ethanol and isopropanol have an estimated BCF of 3 suggesting that the potential for bioaccumulation is low. A BCF of 81 for didecyldimethylammonium chloride suggests bioconcentration in aquatic organisms is moderate.

Mobility in Soil: Ethanol and isopropanol are expected to have very high mobility in soil. If released to soil, didecyldimethylammonium chloride is expected to have no mobility based upon Koc values greater than 4.4×10^5 .

13. Disposal Considerations

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

Solution Disposal: Dilute with water. Dispose in accordance with local regulations.

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in trash.

Towelette Disposal: Do not reuse towelette. Dispose of used towelette in trash. Do not flush wipes down toilet.

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, ethanol)

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, ethanol)
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.

16. Other Information

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.