SAFETY DATA SHEET

Section 1. Product And Company Identification

Product Names: CaviWipes™
KavoWipes

1: Note: KavoWipes is an export product primarily marketed in REACH zones, this SDS applies to shipping routes which include transportation segments and/or shippers which require the Globally Harmonized Format SDS standard when shipping KavoWipes. KavoWipes users must contact the Manufacturer’s European Union representative for the current revision of the REACH SDS standard sheet for KavoWipes.

Product Use: Hard surface cleaner and disinfectant wipe

Manufacturer: METREX® RESEARCH
28210 Wick Road
Romulus, Michigan 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)

SDS Date Of Preparation/Revision: 9/5/18

Section 2. Hazards Identification

GHS / HAZCOM 2012 Classification:
Flammable Liquid Category 3
Eye Irritation Category 2B

Warning!

Hazard Phrases
Flammable liquid and vapor.
Causes eye irritation.

Prevention:
Keep away from heat, sparks, open flames, hot surfaces – No smoking.
Keep container tightly closed.
Use explosion-proof electrical, ventilating and light equipment.
Take precautionary measures against static discharge.
Wash thoroughly after handling.
Wear eye protection.

Response:
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing. If eye irritation persists get medical attention.
In case of fire: Use water spray or fog, alcohol-resistant foam, carbon dioxide or dry chemical to extinguish.

Storage
Store in a well ventilated place. Keep cool.

Disposal
Dispose of contents and container in accordance with local and national regulations.

Other hazards: None

### Section 3. Composition/Information On Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>7732-18-5</td>
<td>70-80%</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>67-63-0</td>
<td>17.2%</td>
</tr>
<tr>
<td>Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)</td>
<td>111-76-2</td>
<td>1-5%</td>
</tr>
<tr>
<td>Diisobutylphenoxyethoxyethyldimethylbenzylammonium chloride</td>
<td>121-54-0</td>
<td>0.28%</td>
</tr>
</tbody>
</table>

### Section 4. First Aid Measures

**Inhalation:** Remove to fresh air. If breathing is difficult, get medical attention.

**Skin Contact:** Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for 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:** Not a normal route of exposure for a wipe. Rinse mouth with water. Never give anything by mouth to an unconscious person. Get medical attention.

**Most Important symptoms and effects, both acute and delayed:** Causes eye irritation. Prolonged skin contact may cause irritation. Ingestion may cause may cause gastric upset and nausea.

**Indication of any immediate medical attention and special treatment needed:** Immediate medical attention is not required.

### Section 5. Fire Fighting Measures

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

**Specific Hazards Arising from the Chemical:** Liquid saturant is a flammable liquid and vapor. Flammable vapors may collect in confined areas if large amounts are used.
Special Protective Equipment and Precautions for Fire-fighters: Firefighters should wear positive pressure self-contained breathing apparatus and full protective clothing for fires in areas where chemicals are used or stored.

Section 6: Accidental Release Measures

Personal precautions, Protective equipment, and Emergency procedures: Wear appropriate protective clothing and equipment.

Environmental Precautions: Avoid release to the environment.

Methods and Materials for Containment and Cleaning up: Pick up wipe and place into a container for disposal. Do not flush to the sewer. Dispose of container in trash. Do not reuse or refill the canister.

Section 7. Handling and Storage

Precautions for Safe Handling: 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.

Conditions for Safe Storage, Including any Incompatibilities: Store in a cool, well ventilated area away from heat, oxidizers and all sources of ignition.

Section 8. Exposure Controls / Personal Protection

Exposure Limits

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Exposure Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>None Established</td>
</tr>
<tr>
<td>Isopropanol</td>
<td>200 ppm TWA, 400 ppm STEL ACGIH TLV</td>
</tr>
<tr>
<td></td>
<td>400 ppm TWA OSHA PEL</td>
</tr>
<tr>
<td>Ethylene Glycol Monobutyl Ether (2-Butoxyethanol)</td>
<td>20 ppm TWA ACGIH TLV</td>
</tr>
<tr>
<td></td>
<td>50 ppm TWA OSHA PEL (skin)</td>
</tr>
<tr>
<td>Diisobutylphenoxyethoxyethyldimethyl benzylammonium chloride</td>
<td>None Established</td>
</tr>
</tbody>
</table>

Appropriate Engineering Controls: Use with adequate general or local exhaust ventilation to maintain exposures below the occupational exposure limits.

Respiratory Protection: None normally required.

Hand protection: 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.
Skin Protection: None required for normal use. Wear protective clothing if needed to avoid prolonged/repeated skin contact. Contaminated clothing should be removed and laundered before re-use.

Hygiene measures: Suitable eye wash and washing facilities should be available in the work area.

Other: None required under normal conditions of use.

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Section 9. Physical and Chemical Properties

The following data applies to the liquid saturant.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Clear liquid on a white towelette</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>0.001 ppm (ethylene glycol monobutyl ether)</td>
</tr>
<tr>
<td>Odor</td>
<td>Alcohol</td>
</tr>
<tr>
<td>pH</td>
<td>11.0-12.49</td>
</tr>
<tr>
<td>Melting/Freezing Point</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flash Point (Solid, Gas)</td>
<td>28.3°C (83°F)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>43.3 mmHg @ 20°C (isopropanol)</td>
</tr>
<tr>
<td>Relative Density</td>
<td>0.972</td>
</tr>
<tr>
<td>Boiling Point/Range</td>
<td>Not determined</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not determined</td>
</tr>
<tr>
<td>Flammability Limits</td>
<td>Not determined</td>
</tr>
<tr>
<td>Vapor Density</td>
<td>2.1 (isopropanol)</td>
</tr>
<tr>
<td>Solubilities</td>
<td>Completely soluble in water</td>
</tr>
<tr>
<td>Partition Coefficient (N-Octanol/Water)</td>
<td>Not determined</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Autoignition Temperature</td>
<td>Not determined</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

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Section 10. Stability and Reactivity

Reactivity: Not reactive at ambient temperatures.
Chemical Stability: Stable.
Possibility of Hazardous Reactions: Not reactive.
Conditions to avoid: Heat, sparks, flames and all other sources of ignition.
Incompatible Materials: Strong oxidizing agents, acids and strong alkalis.
Hazardous decomposition products: Thermal decomposition will produce carbon monoxide, carbon dioxide, nitrogen oxides, amines, chlorine and hydrogen chloride.

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Section 11. Toxicological Information

Potential Health Effects:

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

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

Acute Toxicity Values for Caviwipe 1:
LD50 Oral Rat >5000 mg/kg, LD50 Dermal Rat >2000 mg/kg, LC50 inhalation LC50 rat >2.08 mg/L

Section 12. Ecological Information

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

Toxicity: No toxicity data available for product.
Isopropanol: LC50 fathead minnows 11,130 mg/L/48 hr; LC50 brown shrimp 1400 mg/L/48 hr
Diisobutylphenoxyethoxyethyldimethylbenzylammonium 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. Diisobutylphenoxyethoxyethyldimethylbenzylammonium 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.

Other Adverse Effects: None known

Section 13. Disposal Considerations

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

Container Disposal: Nonrefillable container. Do not reuse or refill this container. Offer for recycling, if available. If recycling is not available, discard in trash.
Section 14. Transport Information

<table>
<thead>
<tr>
<th></th>
<th>UN Number</th>
<th>UN Proper Shipping Name</th>
<th>Hazard Class(s)</th>
<th>Packing Group</th>
<th>Environmental Hazards</th>
</tr>
</thead>
<tbody>
<tr>
<td>US DOT</td>
<td>None</td>
<td>Not Regulated per alcohol exception (49CFR 173.150(e))</td>
<td>None</td>
<td>None</td>
<td>None</td>
</tr>
<tr>
<td>EU ADR/RID</td>
<td>UN1987</td>
<td>Alcohols, n.o.s. (Isopropanol)</td>
<td>3</td>
<td>III</td>
<td>None</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN1987</td>
<td>Alcohols, n.o.s. (Isopropanol)</td>
<td>3</td>
<td>III</td>
<td>None</td>
</tr>
<tr>
<td>IATA/ICAO</td>
<td>UN1987</td>
<td>Alcohols, n.o.s. (Isopropanol)</td>
<td>3</td>
<td>III</td>
<td>None</td>
</tr>
</tbody>
</table>

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None identified

Section 15. Regulatory Information

U.S. Federal Regulations:

EPA SARA 311/312 Hazard Classification: Refer to Section 2 for OSHA Hazard Classification.

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) 111-76-2 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.

US EPA Registered Pesticide: This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The hazard information required on the pesticide label is reproduced below. The pesticide label also includes other important information, including directions for use.

CAUTION!
Harmful if absorbed through the skin.
Causes moderate eye irritation.
Keep out of reach of children.
International Inventories

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

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL) or exempt.

Australia: All of the components in this product are listed on the Australian Inventory of Chemical Substances (AICS) or exempt.

China: All of the components in this product are listed on the Inventory of Existing Chemical Substances in China (IECSC) or exempt.

European Union: All the components in this product are listed on the EINECS inventory or exempt.

Japan: All of the components in this product are listed on the Japanese Existing and New Chemical Substances (ENCS) inventory or exempt.

Korea: All of the components in this product are listed on the Korean Existing Chemicals List (KECL) or exempt.

Philippines: All of the components of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS) or exempt.

Section 16. Other Information

Effective Date: September 5, 2018

Supersedes Date: March 23, 2016

Revision Summary: Section 2 Classification, Hazard phrases, Precautionary phrases, Section 4 Skin contact, Most Important symptoms and effects, both acute and delayed, Section 6 Personal precautions, Protective, equipment, and Emergency procedures, Section 7 Precautions for Safe Handling, Section 8 Other, Section 12 Acute Toxicity Classification

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