Section 1: Identification

Product Name: Flex-a-Chill Coolant Additive

Other name(s): None

Product Numbers: 50016

Supplier: CFM Consolidated
Address: 7009 45th St Ct E, Fife
Washington 98424 United States

Telephone Number: (253) 922-2700
Facsimile: (253) 922-0226

Transportation Emergency Response: INFOTRAC Emergency Chemical Response
(800) 535-5053 USA and Canada
(800) 323-3500 International

Product Use: Automotive antifreeze additive - consumer product

Restrictions on Use: None identified

Section 2: Hazards Identification

GHS/HAZCOM 2012 Classification: Not classified as hazardous.

Label Elements: None required

Section 3: Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dihydrogen oxide</td>
<td>7732-18-5</td>
<td>60 – 100%</td>
</tr>
<tr>
<td>Propylene Glycol</td>
<td>57-55-6</td>
<td>20 – 40 %</td>
</tr>
<tr>
<td>Sodium Nitrite</td>
<td>7632-000</td>
<td>&lt;0.5%</td>
</tr>
</tbody>
</table>

Section 4: First Aid Measures

INHALATION: No adverse effects are expected, however, if irritation or other symptoms develop, remove to fresh air. Seek medical attention if symptoms persist.

SKIN CONTACT: Remove contaminated clothing and wash skin with soap and water. Seek medical attention if irritation develops.

EYE CONTACT: Immediately flush with water, holding open eyelids, for 15 minutes. Seek medical attention if irritation persists.

INGESTION: If swallowed, get immediate medical advice by calling a poison control center or emergency department. If advice is not available and a significant quantity has been swallowed, give 1 glass of water or milk and induce vomiting. Take the victim and the
product container to the nearest emergency treatment center or hospital. Do not attempt to induce vomiting or give anything by mouth to an unconscious person.

MOST IMPORTANT SYMPTOMS: Direct eye contact may cause transient discomfort.

INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT, IF NEEDED: Seek immediate medical attention for large ingestions.

NOTES TO PHYSICIAN: Following acute ingestion signs of toxicity are unlikely. Ethanol treatment as in ethylene glycol poisoning is inappropriate. There is no specific antidote. Treatment should be directed at the control of symptoms and the clinical condition. Monitor for acidosis and central nervous system effects.

The principal toxic effects of sodium nitrite poisoning are vasodilation and/or methemoglobinemia. Hypotension with syncope and tachycardia are common findings. Coronary vasospasm due to acute withdrawal may be seen. Paradoxical bradycardia may occur rarely. Coronary ischemia and cerebrovascular disease can occur due to severe hypotension. Immediate life support measures should be provided because of associated hypotension, seizures, and methemoglobinemia-induced anoxia. Immediately contact a poison center or hospital emergency department for treatment advice.

Section 5: Fire-Fighting Measures

SUITABLE EXTINGUISHING MEDIA: For large fires, use alcohol type or all-purpose foam. For small fires, use water spray, carbon dioxide or dry chemical.

SPECIFIC HAZARDS ARISING FROM THE CHEMICAL: A solid stream of water or foam directed into hot, burning liquid can cause frothing. Heat from fire may generate flammable vapor. Fine sprays or mists may be combustible at temperatures below the normal flash point.

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. Cool exposed container with water spray or fog. Burning may produce carbon monoxide, carbon dioxide and aldehydes.

Section 6: Accidental Release Measures

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES: Wear appropriate protective clothing and equipment (See Section 8).

METHODS AND MATERIALS FOR CONTAINMENT/CLEANUP: Collect with absorbent material and place in appropriate, labeled container for disposal or, if permitted flush spill area with water.

Section 7: Handling and Storage

PRECAUTIONS FOR SAFE HANDLING:

Avoid eye and prolonged or repeated skin contact. Avoid breathing vapors or mists. Wash exposed skin thoroughly with soap and water after use. Keep container away from open flames and excessive heat. Do not reuse empty containers unless properly cleaned. Empty containers retain product residue and may be dangerous. Do not cut, weld, drill, etc. containers, even empty.

Sudden release of hot organic chemical vapors or mists from process equipment operating at elevated temperature and pressure, or sudden ingress of air into vacuum equipment, may result in ignitions without any obvious ignition sources. Published "autoignition" or "ignition" temperatures cannot be treated as safe operating temperatures in chemical processes without analysis of the actual
process conditions. Use of this product in elevated temperature applications should be thoroughly evaluated to assure safe operating conditions.

CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES: Store away from excessive heat and oxidizers. NFPA CLASSIFICATION: III B

**Section 8: Exposure Controls / Personal Protection**

**CHEMICAL**

<table>
<thead>
<tr>
<th>CHEMICAL</th>
<th>EXPOSURE LIMIT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Propylene Glycol</td>
<td>50 ppm AIHA WEEL</td>
</tr>
<tr>
<td>Sodium Nitrite</td>
<td>None Established</td>
</tr>
</tbody>
</table>

APPROPRIATE ENGINEERING CONTROLS: Use general ventilation or local exhaust as required to minimize exposures.

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION: None normally needed.

GLOVES: None normally needed. For prolonged contact nitrile gloves can be worn.

EYE PROTECTION: Safety glasses or goggles recommended if splashing is possible.

OTHER PROTECTIVE EQUIPMENT/CLOTHING: Appropriate protective clothing as needed to minimize skin contact.

**Section 9: Physical and Chemical Properties**

<table>
<thead>
<tr>
<th>PROPERTY</th>
<th>VALUE</th>
</tr>
</thead>
<tbody>
<tr>
<td>APPEARANCE:</td>
<td>Red liquid</td>
</tr>
<tr>
<td>ODOR THRESHOLD:</td>
<td>Not determined</td>
</tr>
<tr>
<td>ODOR:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>pH:</td>
<td>10.6</td>
</tr>
<tr>
<td>MELTING/FREEZING POINT:</td>
<td>Not determined</td>
</tr>
<tr>
<td>BOILING POINT/RANGE:</td>
<td>&gt; 212°F (100°C)</td>
</tr>
<tr>
<td>FLASH POINT:</td>
<td>Not determined</td>
</tr>
<tr>
<td>EVAPORATION RATE:</td>
<td>Not determined</td>
</tr>
<tr>
<td>FLAMMABILITY (SOLID, GAS):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>FLAMMABILITY LIMITS:</td>
<td>LEL: 2.6% (propylene glycol) UEL: 12.5% (propylene glycol)</td>
</tr>
<tr>
<td>VAPOUR PRESSURE:</td>
<td>&lt;0.1 mmHg @ 68°F</td>
</tr>
<tr>
<td>VAPOUR DENSITY:</td>
<td>2.6</td>
</tr>
<tr>
<td>RELATIVE DENSITY:</td>
<td>1.03</td>
</tr>
<tr>
<td>SOLUBILITIES</td>
<td>Water: 100 %</td>
</tr>
<tr>
<td>PARTITION COEFFICIENT</td>
<td>Not determined</td>
</tr>
<tr>
<td>(n-octanol/water)</td>
<td>AUTOIGNITION TEMPERATURE:</td>
</tr>
<tr>
<td>DECOMPOSITION TEMPERATURE:</td>
<td>Not determined</td>
</tr>
<tr>
<td>VISCOSITY:</td>
<td>Not determined</td>
</tr>
</tbody>
</table>

**Section 10: Stability and Reactivity**

REACTIVITY: Normally unreactive

CHEMICAL STABILITY: Stable
POSSIBILITY OF HAZARDOUS REACTIONS: Reaction with strong oxidizers will generate heat.

CONDITIONS TO AVOID: None known

INCOMPATIBLE MATERIALS: Avoid strong bases at high temperatures, strong acids, strong oxidizing agents, and materials reactive with hydroxyl compounds.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide and aldehydes.

### Section 11: Toxicological Information

**POTENTIAL HEALTH EFFECTS:**

**ACUTE HAZARDS:**

INHALATION: Mists may cause upper respiratory irritation with coughing.

SKIN CONTACT: No significant irritation is expected.

EYE CONTACT: Direct contact may cause stinging and tearing but no residual injury or discomfort.

INGESTION: Swallowing may cause gastrointestinal irritation, nausea, vomiting or diarrhea. Lactic acidosis, stupor and seizures have been reported following chronic ingestion of propylene glycol and in individuals overexposure to propylene glycol that have underlying kidney disease. This product contains less than 0.5% sodium nitrite. Swallowing sodium nitrite causes the formation of methemoglobin in the blood which may result in cyanosis, lowering of blood pressure, rapid heartbeat and severe headache. Doses as low as 14 mg/kg have been reported to cause toxic effects.

CHRONIC EFFECTS: Repeated excessive ingestions may cause central nervous system effects. Prolonged or repeated skin contact may cause skin sensitization and an associated dermatitis in some individuals.

CARCINOGENICITY LISTING: None of the components of this product are listed as a carcinogen or suspected carcinogen by IARC, NTP, ACGIH, or OSHA.

**ACUTE TOXICITY VALUES:**

- **Propylene Glycol:**
  - LD50 Oral Rat: 20,000 mg/kg
  - LD50 Skin Rabbit: 20,800 mg/kg

- **Sodium Nitrite:**
  - LD50 Oral Rat: 180 mg/kg
  - LC50 Inhalation Rat: 5.5 mg/m3/4 hr.

This product contains less than 2% tolyltriazole which has demonstrated mutagenic activity in a bacterial test system. A correlation has been established between mutagenic activity and carcinogenic activity for many chemicals. Tolyltriazole has not been identified as a carcinogen or probable carcinogen by NTP, IARC, ACGIH, or OSHA.

### Section 12: Ecological Information

**ECOTOXICITY:**

- **Propylene Glycol:**
  - LC50 Fathead Minnow <10,000 mg/L/96 hr.
  - EC50 Daphnia Magna 100,000 mg/L/48 hr.
Sodium Nitrite: LC50: Western mosquitofish, female 1.5 mg/L/ 96 hr LC50: Daphnia magna 8.3 mg/L /96 hr

PERSISTENCE AND DEGRADABILITY:
Propylene Glycol: Propylene glycol achieved 64% of its theoretical BOD using a sewage inoculum and a 5 day incubation period.
Sodium Nitrite: Does not volatilize, and is likely to remain in water until consumed by plants or other organisms.

BIOACCUMULATIVE POTENTIAL:
Propylene Glycol: BCF 3 suggests the potential for bio-concentration in aquatic organisms is low.

MOBILITY IN SOIL:
Propylene Glycol: Is highly mobile in soil.

OTHER ADVERSE EFFECTS:
None known

Section 13: Disposal Considerations
Dispose of product in accordance with all local, state/provincial and federal regulations.

Section 14: Transport Information

U.S. DOT HAZARD CLASSIFICATION: Not regulated

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

IMDG CODE SHIPPING CLASSIFICATION: Not regulated

CANADIAN TDG CLASSIFICATION: Not Regulated

Section 15: Regulatory Information

EPA SARA 311/312 HAZARD CLASSIFICATION: Not hazardous

EPA SARA 313: This Product Contains the Following Chemicals Subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): None

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.

CALIFORNIA PROPOSITION 65: This product does not contain substances known to the State of California to cause Cancer and/or Reproductive Harm.

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

CANADIAN ENVIRONMENTAL PROTECTION ACT: All of the ingredients are listed on the Canadian Domestic Substances List.
CANADIAN WHMIS CLASSIFICATION: Not a controlled product. CANADIAN WHMIS HAZARD SYMBOLS: Not applicable
This SDS has been prepared according to the criteria of the Controlled Products Regulation (CPR) and the SDS contains all of the information required by the CPR.

AUSTRALIA: All of the ingredients of this product are listed on the Australian Inventory of Chemical Substances. KOREA: All of the ingredients of this product are listed on the Korean Existing Chemical List (KECL).

CHINA: All of the ingredients of this product are listed on the Inventory of Existing Chemical Substance in China (IECSC).

PHILIPPINES All of the ingredients of this product are listed on the Philippines Inventory of Chemicals and Chemical Substances (PICCS).

Section 16: Other Information

NFPA Rating: Fire: 1 Health: 1 Instability: 0

Guide to Abbreviations:
ACGIH = American Conference of Governmental Industrial Hygienists
AIHA = American Industrial Hygiene Association
CASRN = Chemical Abstracts Service Registry Number
CEILING = Ceiling Limit (15 minutes)
CERCLA = The Comprehensive Environmental Response, Compensation, and Liability Act
EPA = Environmental Protection Agency
GHS = Globally Harmonized System
IARC = International Agency for Research on Cancer
INSHT = National Institute for Health and Safety at Work
IOPC = International Oil Pollution Compensation
LEL = Lower Explosive Limit
NE = Not Established
NFPA = National Fire Protection Association
NTP = National Toxicology Program
OSHA = Occupational Safety and Health Administration
PEL = Permissible Exposure Limit (OSHA)
SARA = Superfund Amendments and Reauthorization Act
STEL = Short Term Exposure Limit (15 minutes)
TLV = Threshold Limit Value (ACGIH)
TWA = Time Weighted Average (8 hours)
UEL = Upper Explosive Limit
WEEL = Workplace Environmental Exposure Levels
WHMIS = Worker Hazardous Materials Information System (Canada)

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