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SECTION V - REACTIVITY DATA

Unstable  Conditions to Avoid: N/A  
Stable

Incompatibility (Materials to Avoid): Reacts with active metals like sodium and potassium, amines (including additives), liquid fluorine and liquid chlorine trifluoride. Caution should be used with aluminum and magnesium under conditions of large shear forces such as those found in threaded connections.

Hazardous Decomposition or By-products: The decomposition to toxic, non-sludge forming volatiles occurs rapidly at 325C, noticeably at 300C and in lesser amounts at lower temperatures. Therefore, the maximum safe operating temperature recommended is 200C and maximum short-term temperature recommended is 260C in scrupulously clean systems.

Hazardous Polymerization  May Occur  Will Not Occur  
Conditions To Avoid: N/A

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SECTION VI - HEALTH HAZARD DATA

These products contain a complex mixture of polymers of chlorotrifluoroethylene (CTFE) which will vary from batch to batch.

Halocarbon 27 oil caused no deaths in rats dosed daily for 21 days with 2.5 g/kg orally. Symptoms attributed to fluoride poisoning by metabolism in the liver were noted. Enlargement of the livers and kidneys in the treated animal support this conclusion.

Extensive studies have been conducted on lighter, more volatile Halocarbon oils. Based on all the available data in three species of animals, limited exposure to Halocarbon oil should not be harmful to any portion of the human anatomy. Studies conducted by the Air Force have demonstrated liver toxicity in rodents but not in primates. The observed liver toxicity is believed to be specific for rodents and not relevant to humans. All mutagenicity studies were negative.

Halocarbon oils are not irritating to skin but skin protection should be used to prevent repeated exposure and the possibility of sensitization.

In the absence of chronic toxicity data on these products, exposure to these products and their vapors should be avoided since the potential for human toxicity cannot be ruled out. Proper ventilation and work practices should be employed.

Primary routes of entry:  Inhalation  Skin  Eyes  Oral

Acute Effects of Overexposure: From the animal studies, signs of fluoride poisoning may be expected. These include nausea, shortness of breath and loss of appetite.

Chronic Effects of Overexposure: Unknown

Carcinogenicity listing:  NTP  IARC  OSHA  
 Other:

First Aid

Inhalation: Remove to fresh air. Apply artificial respiration if needed. Seek medical help.

Skin: Wash with soap and water.

Eye: Flush eyes with water for at least 15 minutes. Seek medical help.

Oral: Try to induce vomiting. Seek medical help.

Medical Conditions Generally Aggravated by Exposure: None known.

Other Health Hazards: None known.

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SECTION VII - PROTECTION INFORMATION

Respiratory: None normally required. For large spills wear SCBA.

Ventilation: Adequate general ventilation plus local exhaust at point of emission.

Eye and Face: Safety glasses/goggles or face shield.

Gloves: Impervious gloves.

Other equipment: None normally required.

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SECTION VIII - SPILL, LEAK AND DISPOSAL PROCEDURES

Spill, Leak or Release: Spills may be picked up with an absorbent such as vermiculite and held in covered container for disposal.

Waste Disposal: May be incinerated by licensed waste disposal company. Observe all federal, state and local regulations.

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SECTION IX - OTHER INFORMATION

1. Hazardous Materials/Dangerous Goods Shipping Regulations

U.S. (49 CFR): Proper Shipping Name: Non-Hazardous Material

IATA: Proper Shipping Name: Non-Dangerous Goods

IMDG: Proper Shipping Name: Non-Dangerous Goods

2. Other Information: HMIS Labeling: H 1; F 0; R 0; P B

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REVISED: February 25, 2010