ITW CHEMTRONICS MSDS #0310

SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Company Address:

8125 Cobb Center Drive Kennesaw, GA 30152

> Product Information: 800-TECH-401 Emergency: (Chemtrec) 800-424-9300 Customer Service: 800-645-5244 Revision Date: February 10, 2010

Product Identification

FLUX-OFF® HEAVY DUTY

Product Code: ES1631, ES831B, ES1631C, ES831BC

SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS					
Chemical Name	CAS#	Wt. % Range			
Fluorinated Hydrocarbon (HFE)	163702-07-6/163702-08-7	30.0-50.0			
trans-1,2-Dichloroethylene	156-60-5	30.0-50.0			
Ethanol	64-17-5	1.0-5.0			
1,1,1,2-Tetrafluoroethane	811-97-2	10.0-40.0			
Carbon Dioxide	124-38-9	1.0-5.0			

SECTION 3: HAZARD IDENTIFICATION

Emergency Overview: Clear, colorless liquid with faint ethereal odor. This product is nonflammable. Liquid may irritate eyes and skin under repeated or prolonged exposure. Breathing high concentrations of product vapor may produce dizziness and nausea.

Potential Health Effects:

Liquid, aerosols and vapors of this product may be irritating and can cause pain, tearing, reddening and swelling accompanied by a stinging sensation. Eyes:

Skin: Prolonged contact can cause skin irritation, including redness, burning, drying and/or cracking of skin...

Ingestion: May be harmful if swallowed. Swallowing this material may result in nausea, vomiting and weakness followed by central nervous system depression.

Inhalation: Can be harmful if inhaled. High concentrations of vapors in immediate area can cause dizziness, nausea, vomiting, unconsciousness and death.

SECTION 4: FIRST AID MEASURES

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Have eyes examined and tested by medical personnel if irritation develops or persists.

Wash skin with soap and water. Remove contaminated clothing. Get medical attention if irritation develops or persist. Wash clothing before reuse.

Ingestion: If swallowed, do not induce vomiting. If conscious, give 2 glasses of water. Never give anything by mouth to an unconscious person. Keep head below knees to minimize chance of aspirating material into the lungs. Get medical attention immediately.

Inhalation: Remove to fresh air. If breathing is difficult, give oxygen. Get medical attention.

SECTION 5: FIRE FIGHTING MEASURES

Flash Point: None to boiling(TCC)

Extinguishing Media: Use water spray or fog, CO2, dry chemical or water stream when fighting fires involving this material.

Fire Fighting Instructions: As in any fire, wear self-contained breathing apparatus (pressure-demand, MSHA/NIOSH approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Spills: Shut off leak if possible and safe to do so. Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container for proper disposal. Do not flush to sewer. Avoid runoff into storm sewers and ditches which lead to waterways.

SECTION 7: HANDLING AND STORAGE

Avoid prolonged or repeated contact with eyes, skin, and clothing. Wash hands before eating. Use with adequate ventilation. Avoid breathing product vapor or mist. Do not reuse this container. Store in a cool dry place away from heat, sparks and flame. Keep container closed when not in use. Do not store in direct sunlight.

KEEP OUT OF REACH OF CHILDREN.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

CHEMICAL NAME	ACGIH TLV	OSHA PEL	OTHER
Fluorinated Hydrocarbon(HFE)	NE	NE	750 ppm (3M)
trans-1,2-Dichloroethylene	200 ppm	200 ppm	
1,1,1,2-Tetrafluoroethane	NE	NE	1000 ppm (Dupont)
Ethanol	1,000ppm	1000ppm	
NE = Not Established			
NFPA and HMIS Codes:	NFPA	HM	IS
Health	1		1
Flammability	1		1
Reactivity	1		1
Personal Protection	-	j	В

Work/Hygienic Practices: Good general ventilation should be sufficient to control airborne levels. If vapor concentration exceeds TLV, use NIOSH approved organic Wear safety glasses with side shields (or goggles) and rubber or other chemically resistant gloves. vapor cartridge respirator.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Clear, colorless liquid Solubility in Water: Negligible

Odor: Ethereal Odor Specific Gravity: 1.32

(Water = 1)

Evaporation Rate: >1 (Butyl acetate=1) Vapor Pressure: 450 mmHg@ 70F Boiling Point: 106°F (41C)

SECTION 10: STABILITY AND REACTIVITY

Stability - This product is stable.

Conditions to Avoid: Steam, oxidizers, elevated temperatures. Do not spray near open flames, red hot surfaces or other sources of ignition.

Incompatibility: Do not mix with alkali metals, pure oxygen, strong base, open flames, and welding arcs.

Products of Decomposition: Thermal decomposition may release hydrogen chloride, hydrogen fluoride, perfluoroisobutylene and small amounts of phosgene and chlorine. Solvent decomposition occurs when catalyzed by metal chlorides which can be produced by reaction of HCl and metals in the system. In the presence of aluminum and excessive water, the decomposition can proceed rapidly with production of large amounts of heat and HCl fumes.

Percent Volatile: 100%

Hazardous Polymerization: Will not occur

Conditions to Avoid: Finely divided active metals, alkali and alkaline earth metals

SECTION 11: TOXICOLOGICAL INFORMATION

Inhalation: Ingestion: Fluorinated Hydrocarbons (HFE) > 100 000 ppm (4hr)* LC50 rats

LD50/rats >5000 mg/kg* Fluorinated Hydrocarbon(HFE) trans-1,2-Dichloroethylene LC50 rats 24,100 ppm (4hr)* trans-1,2-Dichloroethylene LD50/rats >5 000 mg/kg* Rats ALC 567,000ppm/4hrs Tetrafluoroethane Ethanol LD50 rat 7060mg/kg

Ethanol LC50 rats 20,000ppm/10hr Carbon Dioxide LCLo/Human 9pph/5min

Skin Eye:

Fluorinated Hydrocarbon(HFE) Fluorinated Hydrocarbon(HFE) 500 mg/rats MLD* 150 mg/rats/24H MLD*

trans-1,2-Dichloroethylene LD50 rabbit >5,000 mg/kg trans-1,2-Dichloroethylene MOD-SEV*

Ethanol rabbit 400 mg open MLD Ethanol rabbit 500 mg SEV

*Information provided by manufacturer.

Cancer Information: No ingredients in this product are listed as human carcinogens by IARC or NTP.

Reproductive effects: none Teratogenic effects: none Mutagenic effects: none

SECTION 12: ECOLOGICAL INFORMATION

Avoid runoff into storm sewers and ditches which lead to waterways. Water runoff can cause environmental damage.

REPORTING

US regulations require reporting spills of this material that could reach any surface waters.

The toll free number for the US Coast Guard National Response Center is: 1-800-424-8802

SECTION 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with all federal, state and local regulations. Water runoff can cause environmental damage.

SECTION 14: TRANSPORTATION INFORMATION

	Proper			Sub.	Pkg.	Hazard	Pkg.	Max.
	Shipping Name	UN Number	Class	Risk	Group	Label	Instr.	Quantity
Air:	Aerosols non-flammable	UN 1950	2.2	NA	NA.	Non-flammable	203	75 kg; 150 kg
Ground:	Consumer Commodity	NA	ORM-D	NA	NA	ORM-D	Pkg.	173.306
	ORM-D						Auth.	

SECTION 15: REGULATORY INFORMATION

SECTION 313 SUPPLIER NOTIFICATION

This product contains no chemicals subject to the reporting requirements of Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986 (40 CFR 372).

This information should be included on all MSDSs copied and distributed for this material.

TOXIC SUBSTANCES CONTROL ACT (TSCA).

All ingredients of this product are listed on the TSCA Inventory.

WHMIS: Class A; Class D2B

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

SECTION 16: OTHER INFORMATION

This product is a Level 1 aerosol. Do not puncture or incinerate containers. Normal ventilation for standard manufacturing practices is usually adequate. Local exhaust should be used when large amounts are released.

To the best of our knowledge, the information contained herein is accurate. However, all materials may present unknown hazards and should be used with caution. In particular, improper use of our products and their inappropriate combination with other products and substances may produce harmful results which cannot be anticipated. Final determination of the suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that may exist.