

MATERIAL SAFETY DATA SHEET

SECTION I: PRODUCT IDENTIFICATION AND USE

Product name	FLUX CLEAN (CH 800)
Chemical family	Chlorinated solvent/alcohol
Supplier	DEK Canada Inc. 1928 St-Regis Blvd Dorval, QC H9P 1H6
Product use	Static free flux remover and cleaner

SECTION IA: FIRST AID MEASURES

Eye contact	Immediately flush with water for at least 15 minutes, lifting upper and lower lids, occasionally. Contact physician.
Skin contact	Wash thoroughly with soap and water. If irritation persists, get medical attention. Remove contaminated clothing and wash before reuse.
Inhalation	Remove affected person to fresh air. If breathing is difficult, administer oxygen. If breathing stops give artificial respiration. Keep person warm, quiet and get medical attention.
Ingestion	If swallowed, DO NOT induce vomiting. Call physician or poison control centre immediately. Have conscious person drink 1 to 2 glasses of water or milk. NEVER give an unconscious or convulsing person anything to ingest.

SECTION II: HAZARDOUS INGREDIENTS

Name	CAS#	%	Exposure limits
			LD/50 LC/50
Methylene chloride	75-09-2	60-100	ORAL (LD50) mg/kg: Acute 1987 (Mouse) 2388 (Rat). 4368 (Rat)
Isopropyl alcohol	67-63-0	10-30	ORAL (LD50) mg/kg: Acute: 3600 (Mouse) 5045 (Rat) VAPOR (LC50) ppm: Acute: 16000 (Rat) (4 hours)
Carbon dioxide	124-38-9	1-5	Not available

SECTION III: PHYSICAL DATA

Physical state and appearance	Liquid (Aerosol concentrate)
Odour	Ethereal
Specific gravity (Water = 1)	1.12 – 1.16 @ 20°C
Odour threshold	214 ppm based on data for: Methylene chloride. Weighted average: 171 ppm
Vapour pressure (mm Hg)	Weighted average: 304.58 mm of Hg @ 20 °C
Vapour density (AIR = 1)	Weighted average: 2.69
Evaporation rate	14.5 based on data for: Methylene chloride. Weighted average: 11.38 (Butyl acetate)
Boiling point	39.75 °C based on data for: Methylene chloride. Weighted average: 50.99 °C
pH	Not available
Solubility in water	Miscible in water
Water/ oil dist. Coeff	Not available
Distribution	
Volatility %	Approximately 97% (w/w)
Melting point	Not available
Molecular weight	Not applicable

SECTION IV: FIRE AND EXPLOSION DATA

Special procedures	Flammable in presence of open flames, sparks and heat. The flashpoint of an aerosol by WHMIS definition is determined by its flame-extension or its flashback. The flame-extension of this product is greater than 45 cm. Canadian NFC, Level 1. Risks of explosion of the product in presence of mechanical impact: DO NOT subject aerosol cans to impact. Risks of explosion of the product in presence of static discharge.: Vapours of this product may form a flammable/explosive mixture with air in enclosed areas when vapours present are between the lower (2%) and upper (19%) flammable limits and come into contact with open flames, sparks or static discharge. DO NOT expose aerosol containers to open flames, heat, sparks or other sources of ignition
Auto-ignition temperature	399°C based on data for: Isopropyl alcohol
Hazardous combustion products	These products are carbon oxides (CO, CO ₂), hydrogen chloride, phosgene and other irritating gases.
Flash point (°C Method)	CLOSED CUP: (TAG) 11.67°C (Isopropyl
Auto-ignition temperature	399 °C based on data for: Isopropyl alcohol.

Hazardous combustion products	These products are carbon oxides (CO, CO ₂) hydrogen chloride, phosgene and other irritating gases.
Flash point (°C method)	CLOSED CUP: (TAG) 11.67 °C (Isopropyl alcohol)
Upper flammable limit (% vol)	19%
Lower flammable limit (% vol)	2%
Extinguishing media	Small fire: Use DRY chemicals, CO ₂ , alcohol foam or water spray. Large fire: Use alcohol foam, water spray or fog. Cool containing vessels with water spray in order to prevent pressure build-up, auto-ignition or explosion. Self-contained respiratory protection should be provided for fire fighters.

SECTION V: REACTIVITY DATA

Hazardous decomposition	These products are carbon oxides (CO, CO ₂), hydrogen chloride, traces of phosgene and chlorine and other irritating gases.
Corrosivity	Not considered to be corrosive for metals and glass according to our database.
Reactivity	Avoid contact with strong oxidizing agents, strong acids and strong alkalis. Keep away from heat, sparks, open flame and all possible ignition sources.

SECTION VI: TOXICOLOGICAL PROPERTIES

Route of entry	Ingestion. Inhalation. Skin contact. Eye contact.
TLV	Methylene chloride TWA: 100 CEIL: 250 (ppm) TWA: 700 CEIL: 870 (mg/m ³) Isopropyl alcohol TWA: 400 CEIL: 500 (ppm) from ACGIH (1993) TWA: 980 CEIL: 1225 (mg/m ³) Carbon dioxide TWA: 5000 (ppm)
Skin contact	May cause irritation, defatting, drying and cracking of skin. Prolonged and repeated contact may lead to dermatitis
Inhalation	Vapours may be irritating to nose, throat and respiratory tract. Excessive inhalation of vapours may cause Central Nervous System effects including dizziness, weakness, fatigue, nausea, headache and possible unconsciousness.

Ingestion	May cause gastrointestinal irritation, nausea, vomiting and diarrhea. Aspiration of material into the lungs may cause chemical pneumonitis, which can be fatal. Can be fatal if inhaled or ingested. This product may irritate eyes and skin upon contact.
Eye contact	May cause moderate irritation, redness, conjunctivitis, tearing and possible corneal damage. This product is an eye irritant.
Carcinogenicity	Methylene chloride is classified by IARC (International Agency for Research on Cancer) as possible carcinogenic to humans
Teratogenicity	Not available.
Mutagenicity	Not available.
Reproductive effects	Not available.
Synergistic materials	Not available.

SECTION VII: PREVENTIVE AND CORRECTIVE MEASURES

Ventilation requirements	Use under well-ventilated conditions only.
Waste disposal	Recycle to process, if possible. Consult your local or regional authorities. Do not dispose in sewers. When container is empty, press button to release all pressure, then dispose of in garbage can.
Precautions	Contents under pressure. Container may explode if heated. DO NOT use in the presence of open flame or spark. Keep away from heat. Avoid breathing vapours or mist spray. Vapours are harmful. Direct inhalation of spray may be harmful. Harmful or fatal if swallowed. Avoid contact with skin and eyes. After handling, always wash hands thoroughly with soap and water. If ingested, seek medical advice immediately and show the container or the label. Use under well-ventilated conditions. Keep out of reach of children.
Storage requirements	Keep in a cool, well-ventilated place. Keep away from open flame or spark. Do not place in hot water or near radiator, stove or other sources of heat. Do not puncture, incinerate or store the container at temperatures above 50°C or in direct sunlight.
Leak and spill procedures	Ventilate and eliminate all sources of ignition, open flames, sparks etc. Small spills may be wiped. Large spills should be collected for

	disposal. Absorb with an inert DRY material.
	Prevent runoff into drains, sewers, and other waterways.

SECTION VIII: CLASSIFICATION

T.D.G. road / rail

CONSUMER COMMODITY

24 HOUR EMERGENCY : PLEASE CONTACT YOUR ANTIPOISON CENTRE

SECTION IX: REGULATORY INFORMATION

CPR compliance	This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.
WHMIS classification	CLASS A, B-5, D-1B, D-2A, D-2B

SECTION X: PERSONAL PROTECTIVE EQUIPMENT

Protective equipment	
Gloves	Chemical resistant gloves
Footwear	Not required
Eyes	Safety glasses are recommended
Respiratory	Use under well-ventilated conditions only
Clothing	Not required

SECTION XI: PREPARATION DATA OF MSDS

Prepared by	DEK Canada Inc.
Verified by	DEK Canada Inc.
Date	February 27/09

CAUTION: The information contained herein is accurate to the best of our knowledge. However, the above supplier will not assume any liability whatsoever for the accuracy or completeness of the information. Final determination of suitability of any material is the sole responsibility of the user. Although certain hazards are described herein, all materials may present unknown hazards and should be used with caution.