

## SECTION 1: CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

COMPANY ADDRESS: 8125 COBB CENTER DRIVE  
KENESAW, GA 30152

PRODUCT INFORMATION: 800-TECH-401  
CUSTOMER SERVICE: 800-645-5244

EMERGENCY: (CHEMTREC) 800-424-9300  
REVISION DATE: JULY 15, 1996  
PREPARED BY: GWEN COTTRELL

PRODUCT IDENTIFICATION: CFC FREE FLUX OFF 2000  
PRODUCT CODE: ES1035, ES1035CB, ES835B

## SECTION 2: COMPOSITION/INFORMATION ON INGREDIENTS

CHEMICAL NAME	CAS NO.	WT. % RANGE
ISOHEXANE, A MIXTURE OF:		
N-HEXANE	110-54-3	0.1-25.0
2-METHYLPENTANE	107-83-5	1.0-46.0
3-METHYLPENTANE	96-14-0	1.0-25.0
2,3-DIMETHYLBUTANE	79-29-8	1.0-25.0
2,2-DIMETHYLBUTANE	75-83-2	1.0-25.0
DENATURED ALCOHOL A MIXTURE OF:		
ETHANOL	64-17-5	1.0-25.0
METHANOL	67-56-1	0.1-10.0
ETHYL ACETATE	141-78-6	0.1-10.0
ISOPROPANOL	67-63-0	1.0-20.0
CARBON DIOXIDE	124-38-9	1.0-20.0

## SECTION 3: HAZARD IDENTIFICATION

EMERGENCY OVERVIEW: CLEAR, COLORLESS LIQUID WITH MILD HYDROCARBON SOLVENT. THIS PRODUCT IS EXTREMELY FLAMMABLE. LIQUID WILL IRRITATE EYES AND SKIN UNDER REPEATED OR PROLONGED EXPOSURE. BREATHING HIGH CONCENTRATIONS OF PRODUCT MAY PRODUCE DROWSINESS AND A HEADACHE.

## POTENTIAL HEALTH EFFECTS:

EYES: LIQUID, AEROSOLS AND VAPORS OF THIS PRODUCT ARE IRRITATING AND CAN CAUSE PAIN, TEARING, REDDENING AND SWELLING ACCOMPANIED BY A STINGING SENSATION.

SKIN: CONTACT CAUSES SKIN IRRITATION.

INGESTION: HARMFUL IF SWALLOWED. IRRITATING TO THE MOUTH, THROAT AND STOMACH. MAY CAUSE VOMITING.

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INHALATION: HARMFUL IF INHALED. HIGH CONCENTRATIONS IN IMMEDIATE AREA CAN DISPLACE OXYGEN AND CAUSE DIZZINESS, UNCONSCIOUSNESS AND EVEN DEATH WITH LONGER EXPOSURE. KEEP PEOPLE AWAY FROM SUCH VAPORS WITHOUT SELF-CONTAINED BREATHING APPARATUS.

PRE-EXISTING CONDITIONS AGGRAVATED BY EXPOSURE: HEART, LUNG, SKIN, EYE.

## SECTION 4: FIRST AID MEASURES

EYES: 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.

SKIN: WASH SKIN WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. GET

MEDICAL ATTENTION IF IRRITATION DEVELOPS OR PERSISTS. WASH CLOTHING SEPARATELY BEFORE REUSE.

INGESTION: IF SWALLOWED, DO NOT INDUCE VOMITING. KEEP HEAD BELOW KNEES TO MINIMIZE CHANCE OF ASPIRATING MATERIAL INTO THE LUNGS. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. GET MEDICAL ATTENTION IMMEDIATELY.

INHALATION: REMOVE TO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. GET MEDICAL ATTENTION.

SECTION 5: FIREFIGHTING MEASURES

FLASH POINT: -20F (ISOHEXANE)  
LEL/UEL: 1.2/7.7 (% BY VOLUME IN AIR)

EXTINGUISHING MEDIA: USE ALCOHOL FOAM, CARBON DIOXIDE OR WATER SPRAY 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

LARGE SPILLS: SHUT OFF LEAK IF POSSIBLE AND SAFE TO DO SO. WEAR SELF-CONTAINED BREATHING APPARATUS AND APPROPRIATE PERSONAL PROTECTIVE EQUIPMENT. ABSORB SPILL WITH INERT MATERIAL (I.E., 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 THAT LEAD TO WATERWAYS.

SMALL SPILLS: ABSORB SPILL WITH INERT MATERIAL (I.E., DRY SAND OR EARTH), THEN PLACE IN A CHEMICAL WASTE CONTAINER FOR PROPER DISPOSAL.

SECTION 7: HANDLING AND STORAGE

AVOID PROLONGED OR REPEATED CONTACT WITH SKIN, EYES OR CLOTHING. WASH HANDS BEFORE EATING. USE WITH ADEQUATE VENTILATION. AVOID BREATHING PRODUCT VAPOR. DO NOT REUSE THIS CONTAINER. STORE IN A COOL DRY PLACE, AWAY FROM HEAT, SPARKS OR FLAMES. KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE. DO NOT STORE IN DIRECT SUNLIGHT. KEEP OUT OF REACH OF CHILDREN.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

(ALL VALUES LISTED ARE FROM THE ACGIH GUIDE TO OCCUPATIONAL EXPOSURE VALUES - 1994).

EXPOSURE GUIDELINES:

CHEMICAL NAME	ACGIH TWA	OSHA PEL	OSHA STEL
N-HEXANE	50 PPM	50 PPM	NA
2-METHYLPENTANE	NA	NA	NA
3-METHYLPENTANE	NA	NA	NA
2,3-DIMETHYLBUTANE	NA	NA	NA
2,2-DIMETHYLBUTANE	NA	NA	NA
DENATURED ALCOHOL, A MIXTURE OF:			
ETHANOL	1000 PPM	1000 PPM	NA
METHANOL	200 PPM	200 PPM	250 PPM
ETHYL ACETATE	400 PPM	400 PPM	NA
ISOPROPANOL	400 PPM	400 PPM	500 PPM
CARBON DIOXIDE	5000 PPM	10,000 PPM	30,000 PPM

WORK/HYGIENIC PRACTICES: GOOD GENERAL VENTILATION SHOULD BE SUFFICIENT TO CONTROL AIRBORNE LEVELS. LOCAL EXHAUST VENTILATION MAY BE NECESSARY TO CONTROL ANY AIR CONTAMINANTS TO WITHIN THEIR TLVS DURING THE USE OF THIS PRODUCT. THIS MATERIAL DOES NOT HAVE ESTABLISHED EXPOSURE LIMITS. WEAR A POSITIVE PRESSURE, AIR-SUPPLIED RESPIRATOR IN SITUATIONS WHERE THERE MAY BE A POTENTIAL FOR AIRBORNE EXPOSURE. WEAR SAFETY GLASSES WITH SIDE SHIELDS, GOGGLES OR A FULL FACE SHIELD. WEAR RUBBER OR OTHER CHEMICALLY RESISTANT GLOVES WHEN HANDLING THIS MATERIAL.

NFPA AND HMIS CODES:	NFPA	HMIS
HEALTH	1	1
FLAMMABILITY	3	3
REACTIVITY	1	1
PERSONAL PROTECTION	-	B

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: CLEAR, COLORLESS LIQUID	SOLUBILITY IN WATER: NEGLIGIBLE
ODOR: MILD HYDROCARBON SOLVENT	SPECIFIC GRAVITY: 0.70 @ 68F
PH: NA	EVAPORATION RATE: LT 1 (BUTYL ACETATE=1)
VAPOR PRESSURE: 6.8 PSIA @ 100F (ISO-HEXANES) (AIR 1)	VISCOSITY: NOT ESTABLISHED (WATER=1)
VAPOR DENSITY: 3 (ISOHEXANES) (AIR 1)	
PERCENT VOLATILE: 100	

SECTION 10: STABILITY AND REACTIVITY

STABILITY: THIS PRODUCT IS STABLE.  
 CONDITIONS TO AVOID: DO NOT SPRAY NEAR OPEN FLAMES, RED HOT SURFACES OR OTHER SOURCES OF IGNITION.

INCOMPATIBILITY: DO NOT MIX POWDERED ALKALI AND ALKALINE EARTH METALS OR STRONG OXIDIZING AGENTS.

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PRODUCTS OF DECOMPOSITION: THERMAL DECOMPOSITION MAY RELEASE CARBON MONOXIDE, CARBON DIOXIDE AND INCOMPLETELY BURNED HYDROCARBONS.

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR.  
 CONDITIONS TO AVOID: NA

SECTION 11: TOXICOLOGICAL INFORMATION (NIOSH RTECS THROUGH OCTOBER 1995)

INHALATION:

ETHANOL	LC50 RATS	20,000 PPM/1 HR
ETHYL ACETATE	LC50 RATS	1600 PPM/8HRS
ISOPROPANOL	LC50 RATS	16,000 PPM/4 HRS

SKIN:

ISOPROPANOL	LD50 RABBITS	12,900 MG/KG
ETHANOL RABBIT	400 MG OPEN	MLD
ISOPROPANOL RABBIT	100 MG	SEV

INGESTION:

ETHANOL	LD50 RATS	7060 MG/KG
ETHYL ACETATE	LD50 RATS	5620 MG/KG
ISOPROPANOL	LD50 RATS	5045 MG/KG

EYE: ETHANOL RABBIT 500 MG SEV

CANCER INFORMATION: NO INGREDIENTS LISTED AS HUMAN CARCINOGENS BY NTP OR IARC.

SECTION 12: ECOLOGICAL INFORMATION

ENVIRONMENTAL IMPACT 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

ENVIRONMENTAL IMPACT DATA: (PERCENT BY WEIGHT)

CFC	0.0%	VOC	95.7%
HCFC	0.0%	HFC	0.0%
CL. SOLV.	0.0%	ODP	0.00

FOR MORE INFORMATION CALL: 1-800-645-5244

SECTION 13: DISPOSAL CONSIDERATIONS

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DISPOSE OF IN ACCORDANCE WITH ALL FEDERAL, STATE AND LOCAL REGULATIONS.

SECTION 14: TRANSPORTATION INFORMATION

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SECTION 313 SUPPLIER NOTIFICATION: THIS PRODUCT CONTAINS THE FOLLOWING TOXIC CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OF THE EMERGENCY PLANNING AND COMMUNITY RIGHT-TO-KNOW ACT OF 1986 (40CFR372). THIS INFORMATION SHOULD BE INCLUDED ON ALL MSDSS COPIED AND DISTRIBUTED FOR THIS MATERIAL.

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CHEMICAL NAME	CAS NO.	WT. % RANGE
METHANOL	67-56-1	1.0-3.8

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TOXIC SUBSTANCES CONTROL ACT (TSCA). ALL INGREDIENTS OF THIS PRODUCT ARE LISTED ON THE TSCA INVENTORY.

SECTION 16: OTHER INFORMATION

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PRODUCT IS A LEVEL 3 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. NOTE: THIS MSDS IS APPLICABLE TO ALL PRODUCT CONTAINERS WITH DATE CODES OF 01175 OR LATER.

REFERENCES: 29 CFR 1910.1200 40 CFR 300-700 ANSI Z400.1-1993  
NIOSH RTECS PROVIDED BY CHEM-BANK BY SILVERPLATTER  
GUIDE TO OCCUPATIONAL EXPOSURE VALUES 1994

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.

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