

**MATERIAL SAFETY DATA SHEET**

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FORANE® 22**PRODUCT IDENTIFICATION AND USE**

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PRODUCT IDENTIFIER: FORANE® 22

PRODUCT CODE: AP9166

PRODUCT USE: REFRIGERANT OR EXTINGUISHING AGENT

WHMIS CLASSIFICATION: A - COMPRESSED GAS.
D2B - TOXIC MATERIAL CAUSING OTHER TOXIC EFFECTS.

HAZARDOUS INGREDIENTS

	%W/W	CAS #	TLV
CHLORODIFLUOROMETHANE (HCFC-22) LC50: 300,000 PPM (2 HR INHALATION -RAT)	100	75-45-6	ACGIH TWA = 1000 PPM

ADDITIONAL INGREDIENT INFORMATION (WHMIS NOT CONTROLLED):
NA

PHYSICAL DATA

PHYSICAL STATE: LIQUID AND GAS.

ODOUR AND APPEARANCE: COLOURLESS LIQUIFIED GAS WITH FAINT ETHER ODOUR.

ODOUR THRESHOLD: NE

SPECIFIC GRAVITY/DENSITY (G/ML): 1.19 @ 25°C

VAPOUR PRESSURE: 136 PSIA @ 21.1°C / 70°F

VAPOUR DENSITY (AIR=1): 3.00

VOLATILITY/VOL(%): NE

SOLUBILITY IN H2O: SLIGHT

EVAPORATION RATE: NE

BOILING POINT: -40.8°C (-41.4°F)

FREEZING POINT: -160°C (-256°F)

PH: NA

LOG KOW: 1.08 (LOG POW)

SHIPPING INFORMATION

UN 1018, 2.2, CHLORODIFLUOROMETHANE

FIRE AND EXPLOSION HAZARD

FLAMMABILITY: NOT FLAMMABLE.

CONDITIONS: NA

MEANS OF EXTINCTION: USE EXTINGUISHING MEDIA APPROPRIATE TO
SURROUNDING FIRE CONDITIONS.

FLASHPOINT: NA - GAS

UPPER EXPLOSION LIMIT (% V): NA

LOWER EXPLOSION LIMIT (%V): NA

AUTO-IGNITION TEMPERATURE: 632°C (1,170°F)

HAZARDOUS COMBUSTION PRODUCTS: HALOGENS, HALOGEN ACIDS, CARBON HALIDES.

NA - NOT APPLICABLE

NE - NOT ESTABLISHED

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EXPLOSION DATA: CONTAINER MAY EXPLODE IF HEATED DUE TO RESULTING PRESSURE RISE.
SENSITIVITY TO IMPACT: NO
SENSITIVITY TO STATIC DISCHARGE: NO

REACTIVITY

CHEMICAL STABILITY: STABLE
INCOMPATIBLE MATERIALS: STRONG ALKALINE, ALKALINE EARTH METALS, POWDERED ALUMINUM, MAGNESIUM, ZINC, STRONG OXIDIZERS.
CONDITIONS OF REACTIVITY: NE
HAZARDOUS DECOMPOSITION PRODUCTS: MAY DECOMPOSE ON CONTACT WITH FLAME OR EXTREMELY HOT METAL SURFACE TO PRODUCE TOXIC AND CORROSIVE PRODUCTS.

HEALTH HAZARD INFORMATION

ROUTE OF ENTRY
SKIN CONTACT: CONTACT WITH LIQUID MAY CAUSE TISSUE TO FREEZE (FROST BITE).
SKIN ABSORPTION: NE
EYE: VAPOUR MAY BE IRRITATING TO EYES.
INGESTION: NE
INHALATION: MAY BE HARMFUL. IN HIGH CONCENTRATIONS
ACUTE OVER EXPOSURE EFFECTS: MAY CAUSE AN INCREASE IN THE SENSITIVITY OF THE HEART TO ADRENALINE WHICH COULD RESULT IN IRREGULAR HEART BEATS AND REDUCED HEART FUNCTION.
CHRONIC OVER EXPOSURE EFFECTS: NE
SENSITIZATION: DOES NOT MEET WHMIS CRITERIA.
CARCINOGENICITY: DOES NOT MEET WHMIS CRITERIA.
TERATOGENICITY: DOES NOT MEET WHMIS CRITERIA.
MUTAGENICITY: DOES NOT MEET WHMIS CRITERIA.
REPRODUCTIVE TOXICITY: DOES NOT MEET WHMIS CRITERIA.

PREVENTIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT: WEAR SAFETY GLASSES AND USE IMPERVIOUS GLOVES.
SPECIFIC ENGINEERING CONTROLS: LOCAL EXHAUST IS RECOMMENDED.
LEAK AND SPILL PROCEDURES: REMOVE OR EXTINGUISH IGNITION OR COMBUSTION SOURCES. EVACUATE SPACES UNTIL GAS IS DISPERSED. KEEP UPWIND. STOP LEAK IF POSSIBLE WITH-OUT RISK. DISPERSE GAS WITH FLOOR-LEVEL FORCED-AIR VENTILATION. EXHAUST VAPOURS OUTSIDE.
WASTE DISPOSAL: HAZARDOUS WASTE. DO NOT ALLOW PRODUCT TO ENTER THE ENVIRONMENT. CONSULT FEDERAL OR LOCAL AUTHORITIES FOR APPROVED DISPOSAL METHODS.
HANDLING PROCEDURES AND EQUIPMENT: DO NOT ENTER CONFINED SPACES UNLESS ADEQUATELY VENTILATED. WASH BEFORE EATING, DRINKING, USING TOBACCO PRODUCTS OR REST ROOMS.
STORAGE REQUIREMENTS: KEEP IN A CLOSED, LABELED CONTAINER IN A VENTILATED AREA. KEEP AWAY FROM HEAT, SPARKS

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AND OPEN FLAMES. DO NOT STORE CYLINDER IN
DIRECT SUN OR EXPOSE IT TO HEAT ABOVE 120°F.

FIRST AID MEASURES

EYE	FLUSH EYES WITH LARGE AMOUNT OF WATER FOR 15 MINUTES WHILE HOLDING EYELIDS OPEN. SEEK MEDICAL ATTENTION IF IRRITATION OCCURS OR PERSISTS.
SKIN	WASH SKIN WITH WATER AND SOAP. SEEK MEDICAL ATTENTION IF IRRITATION OCCURS OR PERSISTS.
INGESTION	NA – GAS
INHALATION	REMOVE PERSON TO FRESH AIR IMMEDIATELY. IF BREATHING HAS STOPPED, APPLY ARTIFICIAL RESPIRATION AND ADMINISTER OXYGEN IF NECESSARY. SEEK MEDICAL ATTENTION.

PREPARATION DATE

PREPARED BY:	TECHNICAL DEPARTMENT.
PHONE NUMBER OF PREPARER:	905-827-9841
DATE PREPARED (MM/DD/YY):	07/26/93
DATE REVISED (MM/DD/YY):	10/04/06

MINIMUM CONTACT WITH THIS AND ALL CHEMICALS IS RECOMMENDED AS A GOOD GENERAL POLICY TO FOLLOW.

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