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MSDS Safety Information
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FSC: 6830
NIIN: 01-370-6209
MSDS Date: 08/15/1994
MSDS Num: CCCJK
Product ID: HFC-134 A,R-134 A
MFN: 01
Responsible Party
Cage: 0YFW2
Name: LAROCHE CHEMICALS INC
Address: 1134 JEFFERSON HWY
Box: 5500
City: GRAMERCY LA 70052
Info Phone Number: 504-869-2365/800-248-6336
Emergency Phon
e Number: 800-528-4963/800-424-9300(CHEMTREC)
Preparer's Name: UNKNOWN
Review Ind: Y
Published: Y

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Contractor Summary
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Cage: 0YFW2
Name: LAROCHE CHEMICALS INC
Address: 1134 JEFFERSON HWY
Box: 5500
City: GRAMERCY LA 70052
Phone: 800-528-4963

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Item Description Information
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Item N
ame: TETRAFLUOROETHANE, TECHNICAL
Specification Number: NONE
Type/Grade/Class: NONE
Unit of Issue: LB
UI Container Qty: 0
Type of Container: UNKNOWN

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Ingredients
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Cas: 811-97-2
Name: 1,1,1,2-TETRAFLUOROETHANE (HFC-134A)
% Wt: 99.9
Other REC Limits: NONE RECOMMENDED
OSHA PEL: NOT ESTABLISHED
ACGIH TLV: NOT ESTABLISHED

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Health Hazards

Data

LD50 LC50 Mixture: LD50 (ORAL, RAT) IS NOT KNOWN.

Route Of Entry Inds - Inhalation: YES

Skin: NO

Ingestion: NO

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: TARGET ORGANS:EYE, SKIN, RESPIRATORY TRACT, HEART. ACUTE-
OVEREXPOSURE BY INHALATION TO VERY HIGH CONCENTRATIONS MAY CAUSE HEART
IRREGULARITIES, UNCONSCIOUSNESS OR DEATH. LIQUID CONTACT/ESCAPING VAPOR S CAN
CAUSE EYE AND SKIN FROSTBITE. INGESTION IS N
OT CONSIDERED A POTENTIAL ROUTE
OF EXPOSURE. CHRONIC- UNKNOWN.

Explanation Of Carcinogenicity: NONE

Signs And Symptoms Of Overexposure: FROSTBITE, ASPHYXIATION, IRRITATION, HEART
IRREGULARITIES, UNCONSCIOUSNESS, DEATH

Medical Cond Aggravated By Exposure: INDIVIDUALS WITH PRE-EXISTING DISEASES OF
THE CENTRAL NERVOUS SYSTEM OR CARDIOVASCULAR SYSTEM MAY HAVE INCREASED
SUSCEPTIBILITY TO THE TOXICITY OF EXCESSIVE EXPOSURES.

First Aid: EYE:FLUSH WITH WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. G
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IMMEDIATE MEDICAL ATTENTION. SKIN:FLUSH WITH WATER FOR 15 MINUTES. TREAT FOR
FROSTBITE BY SLOWLY WARMING UP THE EXPOSED AREA. CALL PHYSICIAN .
INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NECESSARY. CALL A
PHYSICIAN. ORAL:INGESTION IS NOT CONSIDERED A POTENTIAL ROUTE OF EXPOSURE.

Handling and Disposal

Spill Release Procedures: WEAR PROTECTIVE EQUIPMENT. VENTILATE AREA
ESPECIALLY

LOW OR ENCLOSED PLACES WHERE HEAVY VAPORS MIGHT COLLECT. REMOVE OPEN FLAMES.
STOP DISCHARGE IF POSSIBLE.

Neutralizing Agent: NOT RELEVANT

Waste Disposal Methods: THIS IS NOT A LISTED HAZARDOUS WASTE. DISPOSAL MUST BE
IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS. RECYCLE IF POSSIBLE.
IF NOT, SEND TO AN EPA APPROVED INCINERATOR.

Handling And Storage Precautions: STORE IN COOL, VENTILATED, DRY AREA AWAY FROM
FLAMES AND INCOMPATIBLE MATERIALS. AVOID TEMPERATURES ABOVE

125 F (52C).

Other Precautions: AVOID BREATHING VAPORS. AVOID EYE OR SKIN CONTACT. WASH WITH SOAP AND WATER BEFORE EATING OR DRINKING. USE WITH ADEQUATE VENTILATION. DO NOT MIX WITH AIR FOR LEAK TESTING ABOVE ATMOSPHERIC PRESSURE. KEEP OUT OF REACH OF CHILDREN.

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Fire and Explosion Hazard Information
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Flash Point Text: NONE

Extinguishing Media: WATER SPRAY, CARBON DIOXIDE, FOAM OR DRY CHEMICAL FOR

SURROUNDING FIRE. USE WATER SPRAY TO COOL FIRE EXPOSED CONTAINERS.

Fire Fighting Procedures: WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.

Unusual Fire/Explosion Hazard: CYLINDERS MAY RUPTURE. DECOMPOSITION MAY OCCUR FORMING TOXIC GASES. COMBUSTIBLE AT PRESSURE AS LOW AS 5.5 PSIG AT 351F (177C) WHEN MIXED WITH AIR >60%.

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Control Measures
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Respiratory Protection: NOT NORMALLY REQUIRED. WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN POSITIVE PRESSURE MODE OR SUPPLIED-AIR RESPIRATOR IF A LARGE RELEASE OCCURS.

Ventilation: NORMAL VENTILATION. LOCAL EXHAUST NEEDED WHEN LARGE AMOUNTS ARE RELEASED.

Protective Gloves: LINED BUTYL WHEN HANDLING LIQUID

Eye Protection: CHEMICAL SPLASH GOGGLES WHEN HANDLE LIQ.

Other Protective Equipmen

t: EYEBATH, SAFETY SHOWER, PROTECTIVE CLOTHING

Work Hygienic Practices: OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health: THIS NSN IS A NONSUPPLY NSN. USE 6830-01-370-8756 WITH UNIT OF ISSUE: CY AND NET WEIGHT: 125 POUNDS IN A CYLINDER (PER TIR).

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Physical/Chemical Properties
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HCC: G3

NRC/State LIC No: NOT RELEVANT

B.P. Text: -16F,

-27C
M.P/F.P Text: UNKNOWN
Decomp Text: UNKNOWN
Vapor Pres: 4963 @ 77F
Vapor Density: 3.2
Spec Gravity: 1.21 (LIQUID)
Viscosity: NOT RELEVANT
Evaporation Rate & Reference: NOT RELEVANT
Solubility in Water: 0.15%
Appearance and Odor: COLORLESS LIQUEFIED GAS - FAINT ETHEREAL ODOR
Percent Volatiles by Volume: 100
Corrosion Rate: UNKNOWN

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Reactivity Data
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Stability Indicator: YES

Stabil

ity Condition To Avoid: OPEN FLAME, HIGH TEMPERATURES, GLOWING METAL SURFACES

Materials To Avoid: ALKALI OR ALKALINE EARTH METALS, POWDERED ALUMINUM, ZINC, BERYLLIUM (BE)

Hazardous Decomposition Products: MAY FORM HYDROGEN FLUORIDE AND POSSIBLY CARBONYL FLUORIDE.

Hazardous Polymerization Indicator: NO

Conditions To Avoid Polymerization: NOT RELEVANT

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Toxicological Information
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Ecological Information
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MSDS Transport Information
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Regulatory Information
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Other Information
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Transportation Information
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Responsible Party Cage: 0YFW2

Trans ID NO: 130073

Product ID: HFC-134 A,R-134 A

MSDS Prepared Date: 08/15/1994

Review Date: 11/06/1996

MFN: 1

Radioactivity: NOT RELEVANT

Net Unit Weight: UNKNOWN

Multiple KIT Number: 0

Review IND: Y

Unit Of Issue: LB

Container QTY: 0

Type Of Container: UNKNOWN

Additional Data: PER MSDS,

DOMESTIC SHIPMENTS OF R-134A, PROPER SHIPPING

NAME:REFRIGERANT GAS, N.O.S. (1,1,1,2-TETRAFLUOROETHANE), HAZARD CLASS:2.2,

UN ID NUMBER: UN1078. INTERNATIONAL, PROPER SHIPPING

NAME:1,1,1,2-TETRAFLUOROETHANE AND UN ID NUMBER: UN3159. THIS IS NONSUPPLY
NSN

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Detail DOT Information
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DOT PSN Code: OAB

DOT Proper Shipping Name: 1, 1, 1, 2-\$TETRAFLUOROETHANE OR REFRIGERANT GAS R
134A

Hazard Class: 2.2

UN ID Num: UN3159

Label: NON-FLAMMABLE GAS

Packaging Exception: 306

Non Bulk Pack: 304

Bulk Pack: 314,315

Max Qty Pass: 75 KG

Max Qty Cargo: 150 KG

Vessel Stow Req: A

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Detail IMO Information
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IMO PSN Code: OKL

IMO Proper Shipping Name: 1,1,1,2-\$TETRAFLUOROETHANE

IMDG Page Number: 2181

UN Number: 3159

UN Hazard Class: 2(2.2)

IMO Packaging Group: -

Subsidiary Risk Label

: -

EMS Number: 2-09

MED First Aid Guide NUM: 350

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Detail IATA Information
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IATA PSN Code: XRL

IATA UN ID Num: 3159

IATA Proper Shipping Name: 1,1,1,2-\$TETRAFLUOROETHANE

IATA PSN Modifier: (R134A)

IATA UN Class: 2.2

IATA Label: NON-FLAMMABLE GAS

Packing Note Passenger: 200

Max Quant Pass: 75 KG

Max Quant Cargo: 150 KG

Packaging Note Cargo: 200
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Detail AFI Information
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AFI PSN Code: XRL

AFI Proper Shipping Name: 1,1,1,2-\$TETRAFLUOROETHANE

AFI PSN Modifier: (R134A)

AFI Hazard Class: 2.2

AFI UN ID NUM: UN3159

Special Provisions: P5

Back Pack Reference: A6.3, A6.5
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HAZCOM Label
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Product ID: HFC-134 A,R-134 A

Cage: 0YFW2

Company Name: LAROCHE CHEMICALS INC

Street:

1134 JEFFERSON HWY

PO Box: 5500

City: GRAMERCY LA

Zipcode: 70052

Health Emergency Phone: 800-528-4963/800-424-9300(CHEMTREC)

Label Required IND: Y

Date Of Label Review: 11/06/1996

Status Code: C

MFG Label NO: UNKNOWN

Label Date: 11/06/1996

Origination Code: F

Eye Protection IND: YES

Skin Protection IND: YES

Signal Word: WARNING

Health Hazard: Moderate

Contact Hazard: Moderate

Fire Hazard: None

Reactivity Hazard: None

Hazard And Precautions: TARGET ORGANS:EYE, SKIN, RESPIRATORY TRACT, HEART.

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CUTE- OVEREXPOSURE BY INHALATION TO VERY HIGH CONCENTRATIONS MAY CAUSE HEART IRREGULARITIES, UNCONSCIOUSNESS/DEATH. LIQUID CONTACT/ESCAPING VAPORS CAN CAUSE EYE & SKIN FROSTBITE. INGESTION IS NOT CONSIDERED A POTENTIAL ROUTE OF EXPOSURE. CHRONIC- UNKNOWN. STORE IN VENTILATED AREA. IF LEAKING, VENTILATE AREA ESPECIALLY LOW/ENCLOSED PLACES. FIRST AID- EYE:FLUSH WITH WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. CALL PHYSICIAN. SKIN:FLUSH WITH WATER. TREAT FOR FROSTBITE BY SLOWLY WARMING UP EXPOSED AREA. CALL PHYSICIAN.

INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NECESSARY. ORAL:UNLIKELY.

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