

NATIONAL REFRIGERANTS INC -- DICHLOROTETRAFLUOROETHANE REFRIGERANT 114 --  
6830-00-000-0197

===== Product Identification =====

Product ID:DICHLOROTETRAFLUOROETHANE REFRIGERANT 114

MSDS Date:09/01/1995

FSC:6830

NIIN:00-000-0197

MSDS Number: BZQVH

=== Responsible Party ===

Company Name:NATIONAL REFRIGERANTS INC

Address:11401 ROOSEVELT BLVD

City:PHILADELPHIA

State:PA

ZIP:19154

Country:US

Info Phone N

um:609-455-4555

Emergency Phone Num:609-455-4555(CHEMTREC 800-424-9300)

Preparer's Name:M. BEATTY/G. WILSON

CAGE:7Y146

=== Contractor Identification ===

Company Name:NATIONAL REFRIGERANTS INC

Address:11401 ROOSEVELT BLVD

Box:City:PHILADELPHIA

State:PA

ZIP:19154

Country:US

Phone:215-834-0200

CAGE:7Y146

===== Composition/Information on Ingredients =====

Ingred Name:DICHLOROTETRAFLUOROETHANE (SARA 313)

CAS:76-14-2

RTECS #:KI1101000

Fraction by Wt: 100%

Other REC Limits:NONE RECO

MMENDED  
OSHA PEL:1000 PPM  
ACGIH TLV:1000 PPM; 9596  
Ozone Depleting Chemical:1

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===== Hazards Identification =====

LD50 LC50 Mixture:ORAL LD50 (RAT) IS 2250 MG/KG  
Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:ACUTE: INHALATION OR INGESTION MAY BE  
HARMFUL CAUSING TEMPORARY CNS DEPRESSION, HEART IRREGULARITIES;  
GROSS OVEREXPOSURE MAY CAUSE ABNORMAL LIVER FUNCTI  
ON. EXPOSURE MAY  
CAUSE SKIN & EYE IRRITATION. CH RONIC: NONE SPECIFIED BY  
MANUFACTURER.  
Explanation of Carcinogenicity:THIS PRODUCT IS NOT LISTED BY IARC, NTP  
OR OSHA AS A CARCINOGEN, MUTAGEN, TERATOGEN OR NEUROTOXIN.  
Effects of Overexposure:INHALED/INGESTED-DIZZINESS, HEADACHE,  
CONFUSION, INCOORDINATION, LOSS OF CONSCIOUSNESS, IRREGULAR  
PULSE/PALPITATIONS/INADEQUATE CIRCULATION. EYES-IRRITATION.  
SKIN-IRRITATION.  
Medical Cond Aggravated by Exposure:INDIVIDUALS WITH PREEXI  
STING  
DISEASES OF THE CENTRAL NERVOUS SYSTEM OR CARDIOVASCULAR SYSTEM MAY  
HAVE INCREASED SUSCEPTIBILITY TO THE TOXICITY OF EXCESSIVE  
EXPOSURES.

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===== First Aid Measures =====

First Aid:EYES-FLUSH WITH WATER FOR 15 MINUTES. SEE A PHYSICIAN.  
SKIN-REMOVE CONTAMINATED CLOTHES. FLUSH WITH WATER. SEE A PHYSICIAN  
IF IRRITATION PERSISTS. INHALED-REMOVE TO FRESH AIR. ADMINISTER  
OXYGEN OR ART IFICIAL RESPIRATION AS NEEDED. CALL A PHYSICIAN.  
  
INGESTED-DO NOT INDUCE VOMITING! CALL A PHYSICIAN.

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===== Fire Fighting Measures =====

Flash Point:NONE  
Extinguishing Media:USE MEDIA APPROPRIATE FOR SURROUNDING FIRE.  
Fire Fighting Procedures:IF CYLINDERS RUPTURE, WEAR SELF-CONTAINED  
BREATHING APPARATUS AND FULL FIRE FIGHTER'S PROTECTIVE GEAR. USE  
WATER TO COOL FIRE EXPOSED CONTAINERS.  
Unusual Fire/Explosion Hazard:CYLINDERS MAY RUPTURE UNDER FIRE  
CONDITIONS. DECOMPOSITION MAY OCCUR.

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===== Accidental Release Measures =====

Spill Release Procedures: VENTILATE AREA. USE SELF-CONTAINED BREATHING APPARATUS IN CASE OF LARGE SPILLS. COMPLY WITH LOCAL, STATE AND FEDERAL REGULATIONS ON REPORTING RELEASES.

Neutralizing Agent: NONE SPECIFIED BY MANUFACTURER.

===== Handling and Storage =====

Handling and Storage Precautions: NONE SPECIFIED BY MANUFACTURER.

DLA-HMIS: STORE IN A COOL, DRY PLACE AWAY FROM INCOMPATIBLE MA

TERIALS AND OPEN FLAME.

Other Precautions: OZONE DEPLETING POTENTIAL: 0.05. SARA 311/312:

IMMEDIATE YES. CERCLA-NONE. SARA 313-DICHLOROTETRAFLUOROETHANE, CAS# 76-14-2, 100%. SARA EHS (40CFR355)-NONE.

===== Exposure Controls/Personal Protection =====

Respiratory Protection: NONE NORMALLY REQUIRED. IF ENGINEERING CONTROLS FAIL OR NON-ROUTINE USE OR AN EMERGENCY OCCURS; WEAR AN MSHA/NIOSH APPROVED AIR-SUPPLIED RESPIRATOR OR SCBA, AS REQUIRED. USE IAW 29 CFR 191

0.134.

Ventilation: USE ADEQUATE MECHANICAL VENTILATION OR LOCAL EXHAUST TO MAINTAIN EXPOSURE BELOW TLV(S).

Protective Gloves: BUTYL.

Eye Protection: CHEMICAL SPLASH GOGGLES.

Other Protective Equipment: NONE SPECIFIED BY MANUFACTURER.

Work Hygienic Practices: WASH HANDS AFTER HANDLING AND BEFORE EATING, DRINKING, OR SMOKING. LAUNDRY CONTAMINATED CLOTHES BEFORE REUSE.

Supplemental Safety and Health

NOTE TO PHYSICIANS: BECAUSE OF POSSIBLE DISTURBANCES OF CARDIAC RHYTHM, CATECHOLAMINE DRUGS,

SUCH AS EPINEPHRINE, SHOULD ONLY BE USED WITH

SPECIAL CAUTION IN SITUATIONS OF EMERGENCY LIFE SUPPORT.

===== Physical/Chemical Properties =====

HCC: G3

Boiling Pt: B.P. Text: 39.0F, 3.9C

Decomp Temp: Decomp Text: >1100F, >593

Vapor Pres: 1573

Vapor Density: 0.987186

Spec Gravity: 90.9 LB/FT<sup>3</sup>-LIQ

pH: NEUTRL

Evaporation Rate & Reference: >1 (CCL<sub>4</sub>=1)

Solubility in Water: NEGLIGIBLE

Appearance and Odor: CLEAR, COLORLESS, LIQUIFIED GAS; SLIGHTLY ETHEREAL ODOR.

Percent Vol

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid: YES

ALKALI OR ALKALINE EARTH METALS (POWDERED ALUMINUM, ZINC, BERYLLIUM, ETC.)

Stability Condition to Avoid: AVOID OPEN FLAMES AND HIGH TEMPERATURES.

Hazardous Decomposition Products: THIS MATERIAL MAY DECOMPOSE AT HIGH TEMPERATURES FORMING HYDROFLUORIC ACIDS AND POSSIBLY CARBONYL HALIDES.

Conditions to Avoid Polymerization: WILL NOT OCCUR.

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=== Disposal Considerations =====

Waste Disposal Methods: REMOVE TO A PERMITTED WASTE DISPOSAL FACILITY. DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND FEDERAL ENVIRONMENTAL REGULATIONS. CONTAINS HCFC22, A SUBSTANCE WHICH HARMS PUBLIC HEALTH AND ENVIRONMENT BY DESTROYING OZONE IN THE UPPER ATMOSPHERE.

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