

NATIONAL REFRIGERANTS INC -- 1,1,1,2-TETRAFLUOROETHANE -- 6830-01-412-6362

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

Product ID:1,1,1,2-TETRAFLUOROETHANE

MSDS Date:09/01/1995

FSC:6830

NIIN:01-412-6362

MSDS Number: CDYKG

=== Responsible Party ===

Company Name:NATIONAL REFRIGERANTS INC

Address:89 WATER ST

City:BRIDGETON

State:NJ

ZIP:08302-2545

Country:US

Info Phone Num:609-455-4555

Emergency Phone Num:609

-455-4555, CHEMTREC 800-424-9300

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

CAGE:4J994

=== Contractor Identification ===

Company Name:NATIONAL REFRIGERANTS INC

Address:661 KENYON AVE

Box:City:BRIDGETON

State:NJ

ZIP:08302

Country:US

Phone:800-262-0012/215-698-6620

CAGE:4J994

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

:1,1,1,2-TETRAFLUOROETHANE

CAS:811-97-2

Fraction by Wt: 100%

Other REC Limits:NONE RECOMMENDED

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

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

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:TARGET ORGANS:EYE, SKIN, RESPIRATORY TRACT, HEART. ACUTE- OVEREXPOSURE BY INHALATION TO VERY HIGH CONCENTRATIONS MAY CAUSE HEART IRRE

GULARITIES, UNCONSCIOUSNESS OR

DEATH. LIQUID CONTACT/ESCAPING VAPOR S CAN CAUSE EYE AND SKIN FROSTBITE. INGESTION IS NOT CONSIDERED A POTENTIAL ROUTE OF EXPOSURE. CHRONIC- UNKNOWN.

Explanation of Carcinogenicity:NONE

Effects 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 SUSC

EPTIBILITY TO THE TOXICITY OF EXCESSIVE EXPOSURES.

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

First Aid:EYE:IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES. HOLD EYELIDS OPEN. GET MEDICAL ATTENTION. SKIN:FLUSH WITH WATER FOR 15 MINUTES.

TREAT FOR FROSTBITE BY SLOWLY WARMING UP THE EXPOSED AREA. CALL PHYSICI AN. INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NECESSARY. CALL A PHYSICIAN. ORAL:INGESTION IS NOT CONSIDERED A POTENTIAL ROUTE OF EXPOS

URE. NOTE TO PHYSICIAN:CATECHOLAMINES SHOULD NOT BE USED.

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

Flash Point:NONE

Autoignition Temp:Autoignition Temp Text:>1382F

Lower Limits:NOT RELEVANT

Upper Limits:NOT RELEVANT

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 BREATHIN

G APPARATUS WITH FULL
FACEPIECE OPERATED IN THE POSITIVE PRESSURE MODE.
Unusual Fire/Explosion Hazard:CYLINDERS MAY RUPTURE. DECOMPOSITION MAY
OCCUR FORMING TOXIC AND/OR CORROSIVE GASES.

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

Spill Release Procedures:WEAR PROTECTIVE EQUIPMENT. VENTILATE AREA
ESPECIALLY LOW OR ENCLOSED PLACES WHERE HEAVY VAPORS MIGHT COLLECT.
REMOVE OPEN FLAMES. SPILLS AND RELEASES MAY HAVE TO BE REPORTED TO
AUTHORITIES.

Neutrali
zing Agent:NOT RELEVANT

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

Handling and Storage Precautions:STORE IN COOL, VENTILATED, DRY AREA
AWAY FROM DIRECT SUNLIGHT, FLAMES AND INCOMPATIBLE MATERIALS.
PROTECT CYLINDERS AGAINST PHYSICAL DAMAGE.

Other Precautions:AVOID BREATHING VAPORS. AVOID EYE OR SKIN CONTACT.
WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING. USE
WITH ADEQUATE VENTILATION. DO NOT STORE ABOVE 125F/52C. KEEP OUT OF
REACH OF
CHILDREN.

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

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 Equipme

nt:EYEBATH, SAFETY SHOWER, PROTECTIVE CLOTHING

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

Supplemental Safety and Health

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

HCC:G3

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:-16F,-27C

Vapor Pres:4971 @ 77F

Vapor Density:>1

Spec Gravity:1.20 (LIQUID)

Viscosity:NOT RELEVANT

Evaporation Rate & Reference:NOT RELEVANT (GAS)

Solubility in Water:0.15% @ 77F

Appearance an

d Odor: CLEAR, COLORLESS LIQUEFIED GAS - FAINT ETHEREAL
ODOR

Percent Volatiles by Volume: 100

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

Stability Indicator/Materials to Avoid: YES

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

Stability Condition to Avoid: OPEN FLAME, HIGH TEMPERATURES, GLOWING
METAL SURFACES, LIGHTED CIGARETTES

Hazardous Decomposition Products: MAY FORM CARBON MONOXIDE, CARBON
DIOXIDE, HYDROGEN FLUORIDE
AND POSSIBLY CARBONYL FLUORIDE.

===== Disposal Considerations =====

Waste Disposal Methods: DISPOSE OF IN ACCORDANCE WITH LOCAL, STATE AND
FEDERAL REGULATIONS. CONTRACT WITH A PERMITTED WASTE DISPOSAL
FACILITY.

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