

MATERIAL SAFETY DATA SHEET

For R&D use only. Not for drug, household or other uses.

Click <http://www.lookchem.com/cas-811/811-97-2.html> for suppliers of this product.

Composition/Information on Ingredient

Cas:
811-97-2
Code:
M

RTECS:

Code:
X

Name:
1,1,1,2-TETRAFLUOROETHANE

Other REC Limits:
NONE RECOMMENDED

OSHA PEL:
NOT ESTABLISHED
Code:
M

OSHA STEL:

Code:

ACGIH TLV:
NOT ESTABLISHED
Code:
M

ACGIHSTEL:
N/P
Code:

Control Measures

Respiratory Protection:
IF TLV IS EXCEEDED, USE NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS WITH FULL FACE PIECE, OPERATED IN POSITIVE PRESSURE MODE.

Ventilation:
LOCAL AND MECHANICAL EXHAUST RECOMMENDED.

Protective Gloves:
NEOPRENE, VITON

Eye Protection:
CHEMICAL SAFETY GOGGLES &FACESHIELD

Other Protective Equipment:
Equipment EYE WASH STATION, SAFETY SHOWER, LONG SLEEVE AND LONG PANTS, BOOTS

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

Supplemental Safety and Health:
KEY1:J7. THIS PRODUCT IS A KIT CONSISTING OF THREE PARTS. PENETRANT HAS PNI A; REMOVER HAS PNI B AND DEVELOPER HAS PNI D, SAME NSN. FORMULA FOR DEVELOPER CHANGED. FOR PREVIOUS FORMULATION, SEE PNI C, SAME NSN.

Health Hazards Data

LD50LC50Mixture:
ORAL LD50 IS UNKNOWN

Route Of Entry Inds - Inhalation:
YES

Skin:
NO

Ingestion:
NO

Carcinogenicity Inds - NTP:
NO

IARC:
NO

OSHA:
NO

Health Hazards Acute And Chronic:
TARGET ORGANS:EYE, SKIN, RESPIRATORY & GI TRACTS. ACUTE- EYE/SKIN:MAY CAUSE SEVERE IRRITATION. INHALE:MODERATE TO SEVERE IRRITATION, HEADACHE, NAUSEA. ORAL:MODERATE TO SEVERE IRRITATION OF GI TRACT. H ARMFUL IF SWALLOWED. MAY CAUSE CARDIAC IRRITABILITY, CARDIAC ARRHYTHMIA. CHRONIC- LIVER & KIDNEY DAMAGE.

Explanation Of Carcinogenicity:
NONE

Signs And Symptoms Of Overexposure:
IRRITATION OF EYES, SKIN, RESPIRATORY AND GASTROINTESTINAL TRACTS, NAUSEA, VOMITING

Medical Cond Aggravated By Exposure:
HEART DISEASE, RESPIRATORY DISORDERS, LIVER AND KIDNEY DISORDERS. THIS MAY BE FURTHER AGGRAVATED BY ALCOHOL ABUSE.

First Aid:
CALL A DOCTOR IF SYMPTOMS PERSIST. EYE:IMMEDIATELY FLUSH WITH WATER FOR 15 MINUTES, HOLDING EYELIDS OPEN. SKIN:WASH WITH SOAP & WATER. INHALED:REMOVE TO FRESH AIR. PROVIDE CPR/OXYGEN IF NEEDED. ORAL:D O NOT INDUCE VOMITING EXCEPT ON ADVICE OF COMPETENT MEDICAL PERSONNEL. IF VICTIM IS CONSCIOUS, DILUTE BY GIVING LARGE AMOUNT OF MILK OR WATER. CALL A PHYSICIAN/POISON CONTROL CENTER IMMEDIATELY.

Spill Release Procedures:
WEAR PROTECTIVE EQUIPMENTS. VENTILATE AREA. REMOVE WITH INERT ABSORBENT COMPOUND. PUT INTO CONTAINER. DISPOSE AS HAZARDOUS WASTE. RELIEVE PRESSURE ON LEAKING CONTAINERS BY IMMEDIATE USE OR EMPTY BY SP RAYING ONTO ABSORBENT MATERIALS.

Neutralizing Agent:
NOT RELEVANT

Waste Disposal Methods:
DISPOSE OF IN ACCORDANCE WITH ALL APPLICABLE LOCAL, STATE AND FEDERAL REGULATIONS. RECYCLE OR REUSE IF POSSIBLE. IT MAY BE NECESSARY TO EMPTY SPRAY CANS AND PUNCTURE THEM BEFORE DISPOSAL. TRIPLE RINSI NG MAY ALLOW DISPOSAL AS NONHAZARDOUS WASTE.

Handling And Storage Precautions:
STORE IN COOL, DRY AREA BELOW 120F. DO NOT PUNCTURE OR INCINERATE. HEAT FROM SUNLIGHT, STOVES, HOT WATER COULD CAUSE CONTAINER TO BURST.

Other Precautions:
"EMPTY" CONTAINERS MAY RETAIN RESIDUE AND CAN BE DANGEROUS. KEEP OUT OF REACH OF CHILDREN. WASH THOROUGHLY AFTER HANDLING AND BEFORE EATING OR DRINKING. DO NOT BREATHE VAPORS. DO NOT TAKE INTERNALLY. KEEP AWAY FROM SOURCES OF EXCESSIVE HEAT

Fire and Explosion Hazard Information

Flash Point Method:
N/P

Flash Point:

Flash Point Text:
NONE

Autoignition Temp:

Autoignition Temp Text:
N/R

Lower Limits:
N/R

Upper Limits:
N/R

Extinguishing Media:
WATER FOG, CARBON DIOXIDE OR DRY CHEMICAL

Fire Fighting Procedures:
WEAR NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS OPERATED IN THE POSITIVE PRESSURE MODE. USE WATER SPRAY TO COOL FIRE-EXPOSED CONTAINERS.

Unusual Fire/Explosion Hazard:
CONTENTS UNDER PRESSURE. HEATING ABOVE 120F MAY CAUSE CONTAINER TO BURST. MAY DECOMPOSE TO TOXIC GASES.

Physical/Chemical Properties

HCC:
V2

NRC/State LIC No:
NOT RELEVANT

Net Prop WT For Ammo:

Boiling Point:
=48.9C, 120.F

B.P. Text:
APPROX.120F

Melt/Freeze Pt:

M.P/F.P Text:
UNKNOWN 4

Decomp Temp:

Decomp Text:
UNKNOWN

Vapor Pres:
APPROX 300

Vapor Density:
>1

Volatile Org Content %:

Spec Gravity:
1.12

VOC Pounds/Gallon:

PH: N/R

VOC Grams/Liter:

Viscosity:
UNKNOWN

Evaporation Rate & Reference:
>1 (N-BUTYL ACETATE=1)

Solubility in Water:
APPRECIABLE

Appearance and Odor:
RAPIDLY DRIES TO WHITE POWDERY COATING WHEN SPRAYED; ALCOHOL ODOR

Percent Volatiles by Volume:
95

Corrosion Rate:
UNKNOWN

Reactivity Data

Stability Indicator:
YES

Stability Condition To Avoid:
TEMPERATURES ABOVE 120F

Materials To Avoid:
STRONG OXIDIZING AGENTS, STRONGLY HEATED ACTIVE METALS, STRONG ACIDS

Hazardous Decomposition Products:
CARBON MONOXIDE, CARBON DIOXIDE, OXIDES OF NITROGEN AND CHLORINE, HYDROCHLORIC, HYDROFLUORIC ACIDS, OTHER TOXIC GASES

Hazardous Polymerization Indicator:
NO

Conditions To Avoid Polymerization:
NOT RELEVANT

Toxicological Information

Information:N/P

MSDS Transport Information

Information:N/P

Regulatory Information

Sara Title III Information: N/P

Federal Regulatory Information: N/P

State Regulatory Information: N/P

Other Information

Other Information:N/P