MATERIAL SAFETY DATA SHEET For R&D use only. Not for drug, household or other uses.

Click http://www.lookchem.com/cas-778/7783-54-2.html for suppliers of this product. Composition/Information on Ingredient

Cas: 7783-54-2 Code: Μ

RTECS:

Code: Χ

Name: NITROGEN TRIFLUORIDE Environmental Wt: Other RE **Other REC Limits:** NΡ **OSHA PEL:** NΡ

Code:

OSHA STEL: NP Code:

ACGIH TLV:

NP

Code: **ACGIHSTEL:** NΡ Code:

Control Measures

Respiratory Protection:

POSITIVE PRESSURE AIR LINE WITH FULL-FACE MASK AND ESCAPE BOTTLE OR SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR EMERGENCY USE. Ventilation: HOOD WITH FORCED VENTILATION. LOCAL EXHAUST. TO PREVENT ACCUMULATION ABOVE THE EXPOSURE LIMIT. Protective Gloves: PLASTIC OR RUBBER GLOVES.

Eye Protection: SAFETY GOGGLES OR GLASSES. **Other Protective Equipment:** Equipment SAFETY SHOES. **Work Hygienic Practices:**

DON'T DRAG, SLIDE, ROLL, OR HEAT CYLINDERS. USE CHECK VALVE OR TRAP IN DISCHARGE LINE TO PREVENT BACK

EXPOSURE LIMITS: YES; IRRITANT: YES; SENSITIZATION: NO; TERATOGEN: NO; REPRODUCTIVE HAZARD: NO; MUTAGEN: NO;

DUE TO INTERFERENCE WITH OXYGEN TRANSPORT IN BLOOD. EFFE CTS OF OXYGEN DEFICIENCY RESULTING FROM SIMPLE

REMOVAL FROM THE CONTAMINATED AREA IS MOST IMPORTANT. UNCONS CIOUS PERSONS SHOULD BE MOVED TO AN

2 EYE EFFECTS: NONE KNOWN; SKIN EFFECTS: NO HAZARD HAS BEEN RECOGNIZED. INGESTION EFFECTS: NONE KNOWN. INGESTION IS UNLIKELY AS PRODUCT IS A GAS AT ROOM TEMPERATURE. INHALATION EFFECTS: INHALATION CA USES BREATHING DIFFICULTIES, CHEST PAINS AND NAUSEA. IT FORMS A HEMOGLOBIN COMPLEX, SIMILAR TO CARBON MONOXIDE, AND THUS, IS HIGHLY POISONOUS

EYES: NONE NORMALLY REQUIRED. SKIN: NONE NORMALLY REQUIRED. INGESTION: NONE NORMALLY REQUIRED. INHALATION: PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE. RESCUE PERSONNEL SHOU LD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. VICTIMS SHOULD BE ASSISTED TO AN UNCONTAMINATED AREA AND INHALE FRESH AIR. QUICK

EVACUATE ALL PERSONNEL FROM AFFECTED AREA. USE APPROPRIATE PROTECTIVE EQUIPMENT. IF LEAK IS IN USER'S EQUIPMENT, BE

CERTAIN TO PURGE PIPING WITH INERT GAS PRIOR TO ATTEMPTING REPAIRS. IF LEAK IS IN CONTAINER OR CONTAINER VALVE,

DO NOT ATTEMPT TO DISPOSE OF RESIDUAL WASTE OR UNUSED QUANTITIES. RETURN IN THE SHIPPING CONTAINER PROPERLY

AND MONEL ARE RECOMMENDED FOR HIGHER TEMPERATURES. WETTED SURFACES SHOULD BE PASSIVAT ED WITH AN "ACTIVE"

FLUORINE COMPOUND TO ESTABLISH A METAL FLUORIDE COATING AS ADDITIONAL PROTECTION

REMAIN IN PLACE UNLESS CONTAINER IS SECURED WITH VALVE PROTECTION OUTLE T PIPED TO USE POINT

LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE TO A DVANCED SPECIALTY GASES

MOST METALS ARE SATISFACTORY FOR HANDLING NITROGEN TRIFLUORIDE UP TO TEMPERATURES OF APPROXIMATELY 160 F. NICKEL

KEEP EQUIPMENT SCRUPULOUSLY DRY. MANY OF THE METAL FLUORIDES ARE WATER SOLUBLE SO THAT THE PASSIVE FILM CORROSION PROTECTION MAY BE DESTROYED IF WETTED WITH WATER. USE ONLY IN WELL-VENTILATED AREAS. VALVE PROTECTION CAPS MUST

FLOW. STORE UPRIGHT & FIRMLY SECURED. USE FIRST-IN FIRST-OUT INVENTORY SYSTEM.

4 N/P

YES

Skin: NO

NO

IARC: NO

OSHA: NO

N/P

N/P

First Aid:

Spill Release Procedures:

Waste Disposal Methods:

FOR PROPER DISPOSAL.

Other Precautions:

Flash Point Method:

N/A

NONE

NONE

NONE

NONE

HCC:

NRC/State LIC No:

Boiling Point: =-128.7C, -200.F

Melt/Freeze Pt: =-206.6C, -340.2F

M.P/F.P Text:

Decomp Temp:

Decomp Text:

Vapor Pres:

Vapor Density:

Spec Gravity: NOT AVAILABLE

VOC Pounds/Gallon:

PH: NOT AVAILABLE

VOC Grams/Liter:

NOT AVAILABLE

Corrosion Rate:

Stability Indicator:

Materials To Avoid:

Information:N/P

Information:N/P

Solubility in Water:

Appearance and Odor:

Percent Volatiles by Volume:

Reactivity Data

Stability Condition To Avoid:

Hazardous Decomposition Products:

Hazardous Polymerization Indicator:

Conditions To Avoid Polymerization:

Toxicological Information

Regulatory Information

Sara Title III Information: N/P

Federal Regulatory Information: N/P

State Regulatory Information: N/P

Other Information

Look for Chemicals

www.lookchem.com

Other Information:N/P

MSDS Transport Information

TETRAFLUOROHYDRAZINE AND ACTIVE FLUORIDE RADICALS.

Evaporation Rate & Reference:

COLORLESS GAS, TRACE QUANTITIES OF IMPURITIES CAN IMPART A MUSTY OR PUNGENT ODOR

INCOMPATIBLE WITH PLASTICS, HYDROCARBONS AND OTHER ORGANIC MATERIALS.

5 REACTS SIMILARILY TO OXYGEN UP TO TEMPERATURES OF 660 F IN THAT IT IS RELATIVELY INERT TOWARD MOST MATERIALS.

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terms and conditions of sale.

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any

guarantee of the properties of the product. Lookchem shall not be held liable for any damage resulting from

handling or from contact with the above product. See reverse side of invoice or packing slip for additional

Viscosity:

SLIGHTLY

N/P

YES

NO

N/P

GAS, ABOVE CRIT. TEMP.

Volatile Org Content %:

N/P

2.48

B.P. Text:

Net Prop WT For Ammo:

Lower Limits:

Upper Limits:

Extinguishing Media:

Fire Fighting Procedures:

Unusual Fire/Explosion Hazard:

IGNITE MOST MATERIALS ON CONTACT.

Physical/Chemical Properties

Flash Point:

Flash Point Text:

Autoignition Temp:

Autoignition Temp Text:

Neutralizing Agent:

CONTACT CHEMTREC: 800-424-9300.

Handling And Storage Precautions:

Ingestion:

Supplemental Safety and Health:

Health Hazards Data

Route Of Entry Inds - Inhalation:

LD50LC50Mixture:

LC50 6700 PPM/1HR (RAT)

Carcinogenicity Inds - NTP:

Health Hazards Acute And Chronic:

Explanation Of Carcinogenicity:

SYNERGISTIC EFFECTS: NONE REPORTED

Signs And Symptions Of Overexposure:

Medical Cond Aggravated By Exposure:

ASPHYXIANTS MAY INCLUDE: RAPID BREATHING, DIMI

UNCONTAMINATED AREA AND, IF BREATHING HAS SPED, ADMINISTER AR

Fire and Explosion Hazard Information

USE ANY EXTINGUISHING MEDIA WHICH IS SUITABLE FOR THE SURROUNDING FIRE.

FIRES SUPPORTED BY NITROGEN TRIFLUORIDE AS THE OXIDIZER GENERATE TOXIC FLUORIDE COMPOUNDS.

NONFLAMMABLE GAS. HOWEVER, IT MAY FORM FLAMMABLE OR EXPLOSIVE MIXTURES WITH GASEOUS FUELS. ABOVE 1830 F, IT SHOULD