



TULSTAR PRODUCTS, INC.

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MATERIAL SAFETY DATA SHEET

COMPANY INFORMATION

Company Name: **TULSTAR PRODUCTS, INC.**
5510 S. Lewis Ave.
Tulsa, OK 74105
Phone Number: (918) 749-9060
Fax Number: (918) 747-1444
Email Address: tulstar@tulstar.com
Emergency Number: CHEMTREC 800-424-9300 (24 hours)

IDENTIFICATION

Product Name: Chlorotetrafluoroethane, Technical Grade
Component #1: 2-Chloro-1,1,1,2-Tetrafluoroethane (HCFC-124)
Percent: 94.7
CAS Number: 2837-89-0
Component #2: 1-Chloro-1,1,2,2-Tetrafluoroethane (HCFC-124A)
Percent: 5
CAS Number: 354-25-6

PHYSICAL & CHEMICAL CHARACTERISTICS

Appearance: Clear, colorless liquefied gas
Odor: Slight ether odor
Boiling Point: 12°F (-11°C)
Melting Point: -326°F (-199°C)
Vapor Pressure: 61 PSIG @ 2°C (mm Hg/70°F)
Vapor Density: NP (Air = 1)
Specific Gravity: DENS = 1.364 g/cm³
Decomposition Temp: NP
Evaporation Rate: NP
Solubility in Water: 1.71% @ 24°C, moderate
Percent Volatiles by Volume: 100
Viscosity: NP
pH: NP
Corrosion Rate: NP
Autoignition Temperature: NP

FIRE & EXPLOSION HAZARD DATA

Flash Point: Will not burn
Lower Explosive Limit: NP
Upper Explosive Limit: NP
Extinguishing Media: Use media appropriate for surrounding material.
Special Fire Fighting Procedure: Cool tank/container with water spray. Self-contained breathing apparatus (SCBA) may be required if the cylinder ruptures or release under fire conditions.
Unusual Fire & Explosion Hazards: Cylinders may rupture under fire conditions. Decomposition may occur.

REACTIVITY DATA

Stability: Yes
Conditions to Avoid (Stability): Avoid open flames and high temperatures.
Materials to Avoid: Incompatible with Aluminum or Alkaline Earth Metals, Powdered Aluminum, Zinc, Beryllium, etc.
Hazardous Decomposition Products: Decomposition Products hazardous materials can be decomposed by high temperatures; (open flames, glowing metal surfaces, etc) forms HCl, HF Acids, Carbonyl Halide.
Hazardous Poly Occur: No
Conditions to Avoid (Poly): N.A.

HEALTH HAZARD DATA

LD50-LC50 Mixture: None specified by manufacturer.
Route of Entry:
-Inhalation: Yes
-Skin: Yes
-Ingestion: No
Health Hazard Acute and Chronic:
-Inhalation: Gross overexposure may cause CNS depression, dizziness, confusion, incoordination, drowsiness, unconsciousness, irregular heartbeat with strange sensation in chest, heart thumping, apprehension, lightheadedness, faint feeling, dizziness, and frostbite.
Carcinogenicity:
-NTP: No
-IARC: No
-OSHA: No
Explanation Carcinogenicity: Per MSDS: None of composition present in material @CONC Equal to/ greater than 0.1% are listed by IRAC/NTP/OSHA/ACGIH as carcinogen.
Signs/Symptoms of overexposure: CNS depression, dizziness, confusion, incoordination, drowsiness, unconsciousness, irregular heart beat with strange sensation in chest, heart thumping, apprehension, lightheadedness, feeling of fainting, dizziness, weakness, loss of consciousness, death, suffocation, and frostbite.
Medical Conditions Aggravated by exposure: Increased susceptibility to effects of this material may be observed in persons with pre-existing disease of the central nervous system, cardiovascular system.
Emergency/First Aid Procedure:
-Inhale: Immediately remove to fresh air. Keep calm. Not breathing give artificial respiration. If difficulty breathing give oxygen. Call physician.
-Skin: Flush with water for at least 15 minutes. Seek medical attention if irritation persists. Treat for frostbite if necessary by gently warming affected area.
-Eye: Immediately flush with plenty of water for at least 15 minutes. Call physician.
-Ingest: Not considered a potential route of exposure.

PRECAUTIONS FOR SAFE HANDLING AND USE

Steps if Material is Released/Spills:	Review MSDS. Ventilate area especially low/enclosed places where heavy vapors might collect. Remove open flames. Use SCBA if large spill/leak occurs. Comply with Federal/State/Loc regulations for reporting releases.
Neutralizing Agent:	None specified by Manufacturer.
Waste Disposal Method:	Treatment/storage/transport/disposal must be IAW applicable Federal/State/Provincial/Local regulations. Recover by distillation or remove to permitted waste disposal facility.
Precautions-Handling/Storing:	Avoid Breathing Vapor/Mist. Avoid eye/skin contact. Use sufficient ventilation to keep employee exposure below recommended limits. Store in clean dry place.
Other Precautions:	Do not heat >52C.

CONTROL MEASURES

Respiratory Protection:	Under normal MFG conditions no respiratory protection is required when using this product. Self-contained breathing apparatus is required when using this product. Self-contained breathing apparatus (SCBA) is required if large release occurs.
Ventilation:	Use sufficient ventilation to keep worker exposure below recommended limits. LOC EXHAU should be used when large amounts released. MECHAN (supplier)
Protective Gloves:	Chemical Splash GO
Eye Protection:	Chemical Splash Goggles.
Other Protective Equipment:	None specified by manufacturers.
Work Hygienic Practices:	Wash contaminated clothing before reuse.
Supplies for Safety & Health Data: Ventilation:	Should be used in low/enclosed places.

TRANSPORTATION DATA

Transportation Date Review Date:	97017
DOT PSN Code:	IID
DOT Proper Shipping Name:	Liquefied Gas, N.O.S.
DOT Class:	2.2
DOT Label:	Non-flammable
IMO PSN Code:	IZS
IMO Proper Shipping Name:	Liquefied Gas, N.O.S.
IMO Regulations Page Number:	2155-1
IMO UN Number:	3163
IMO UN Class:	2(2.2)
IMO Subsidiary Risk Label:	-----
IATA PSN Code:	PHD
IATA UN ID Number:	3163
IATA Proper Shipping Name:	Liquefied Gas, N.O.S. *
IATA UN Class:	2.2
IATA label:	Non-Flammable Gas
AFI PSN Code:	Non
AFI Symbols:	0
AFI Proper Shipping Name:	Hydrocarbon Gas, Liquefied, N.O.S. or Hydrocarbon Gas mixtures, N.O.S.
AFI Class:	2.1
AFI ID Number:	UN1965
AFI Basic Ref:	A6.3, A6.5
N.O.S shipping Name:	1-Chloro-1,2,2-Tetrafluoroethane
Additional Transportation Data:	Per MSDS: DOT/IMO Proper Shipping Name: 1-Chloro-1,2,2,2-Tetrafluoroethane, 2.2, UN 1021, Non-flammable Gas Label. PSN

LABEL DATA

Label Required:	Yes
Label Status:	F
Common Name:	SUVA 124
Chronic Hazard:	Yes
Signal Word:	Warning!
Acute Health Hazard-Moderate:	X
Contact Hazard-Slight:	X
Fire Hazard-None:	X
Reactivity Hazard-None:	X
Special Hazard Precautions:	
Inhalation:	Gross overexposure cause CNS Depression, dizziness, confusion, incoordination, drowsiness, unconsciousness, irregular heart beat with strange sensation in chest, heart thumping, apprehension, lightheadedness, faint feeling, dizziness, weak, loss of consciousness, death, suffocation.
Skin/eye:	Frostbite. Target organs: Heart, CNS. First Aid: Inhalation: Immediately remove to fresh air. Keep calm. If not breathing give artificial respiration, difficulty breathing give oxygen call physician.
Skin:	Flush with water for at least 15 minutes. Seek medical attention if irritation persists. Treat for frostbite if necessary by gently warming affected area.
Eye:	Immediately flush with plenty of water for at least 15 minutes. Call Physician.
Ingest:	Not considered a potential route of exposure.
Protect Eye:	Yes
Protect Skin:	Yes
Protect Respiratory:	Yes