

Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

Date last revised: March 25, 2014 Date printed: March 31, 2014

SECTION 1. ----- CHEMICAL IDENTIFICATION-----

CATALOG #: 1300-6-18

NAME: 1,1-DICHLOROTETRAFLUOROPROPENE

SECTION 2. ---- COMPOSITION/INFORMATION ON INGREDIENTS -----

CAS NUMBER: 2804-55-9

MOLECULAR FORMULA: C₃Cl₂F₄ MOLECULAR WEIGHT: 182.93

SECTION 3. ----- HAZARDS IDENTIFICATION -----

LABEL PRECAUTIONARY STATEMENTS

IRRITANT.

IRRITATING TO THE EYES, RESPIRATORY SYSTEM, AND SKIN.

SECTION 4. ----- FIRST-AID MEASURES-----

INHALATION

WHEN INHALED REMOVE TO FRESH AIR AND SEEK MEDICAL AID.

IF BREATHING IS IRREGULAR OR STOPPED, ADMINISTER ARTIFICIAL RESPIRATION.

IF UNCONSCIOUS PLACE IN RECOVERY POSITION AND SEEK MEDICAL ADVICE.

SKIN CONTACT

WIPE OFF EXCESS MATERIAL AND WASH WITH WATER. CONSULT A PHYSICIAN.

EYE CONTACT

PROTECT UNHARMED EYE. RINSE IMMEDIATELY WITH PLENTY OF WATER, ALSO UNDER THE EYELIDS, FOR AT LEAST 15 MINUTES. CALL A PHYSICIAN IMMEDIATELY.

INGESTION

IF VICTIM IS CONSCIOUS RINSE MOUTH WITH WATER, CALL A PHYSICIAN IMMEDIATELY.

SECTION 5. ----- FIRE FIGHTING MEASURES -----

FLASH POINT

NOT ESTABLISHED

SUITABLE EXTINGUISHING MEDIA

USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE. SPECIFIC HAZARDS DURING FIRE FIGHTING

FLAMMABLE. SOME RISK MAY BE EXPECTED OF HAZARDOUS DECOMPOSITION PRODUCTS. COOL CLOSED CONTAINERS EXPOSED TO FIRE WITH WATER SPRAY. HEATING WILL CAUSE PRESSURE RISE WITH RISK OF BURSTING AND SUBSEQUENT EXPLOSION.

SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE SUIT. IN CASE OF FIRE: EVACUATE AREA. FIGHT FIRE REMOTELY DUE TO THE RISK OF EXPLOSION.

SECTION 6. ----- ACCIDENTAL RELEASE MEASURES-----

PERSONAL PROTECTION

AVOID BREATHING VAPOR MIST, OR GAS. ENSURE ADEQUATE VENTILATION. WEAR PROTECTIVE EQUIPMENT INCLUDING RUBBER GLOVES, AND EYE PROTECTION. KEEP UNPROTECTED PERSONS AWAY.

REMOVE ALL SOURCES OF IGNITION. BEWARE OF VAPORS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPORS CAN ACCUMULATE IN LOW AREAS.

ENVIRONMENTAL PROTECTION

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. TAKE PRECAUTIONS TO ENSURE PRODUCT DOES NOT CONTAMINATE THE GROUND OR ENTER THE DRAINAGE SYSTEM.

COLLECTION

CONTAIN SPILLAGE, AND THEN COLLECT WITH AN ELECTRICALLY PROTECTED VACUUM CLEANER OR BY WET-BRUSHING AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS.

SECTION 7. ----- HANDLING AND STORAGE-----

HANDLING

MECHANICAL EXHAUST REQUIRED. USE ONLY IN EXPLOSION-PROOF AREAS. PROTECT FROM SUNLIGHT AND DO NOT EXPOSE TO TEMPERATURES EXCEEDING 50 °C. DO NOT PIERCE OR BURN, EVEN AFTER USE. KEEP PRODUCT AND EMPTY CONTAINER AWAY FROM HEAT AND SOURCES OF IGNITION. FIRE OR INTENSE HEAT MAY CAUSE VIOLENT RUPTURE OF PACKAGES.

STORAGE

KEEP CONTAINERS TIGHTLY CLOSED IN A COOL, WELL-VENTILATED PLACE. CONTAINERS SHOULD BE PROTECTED AGAINST FALLING DOWN. PROTECT FROM WARMTH. DO NOT STORE AT TEMPERATURE EXCEEDING 50 °C. KEEP AWAY FROM DIRECT SUNLIGHT.

SECTION 8. ----- EXPOSURE CONTROLS/PERSONAL PROTECTION-----

ENGINEERING MEASURES

HIGHLY EFFECTIVE EXHAUST VENTILATION

PERSONAL PROTECTIVE EQUIPMENT

IN CASE OF INSUFFICIENT VENTILATION WEAR SUITABLE RESPIRATORY EQUIPMENT.

WEAR HEAT INSULATING GLOVES.

GOGGLES.

WEAR SUITABLE PROTECTIVE EQUIPMENT.

HYGIENE MEASURES

PROVIDE ADEQUATE VENTILATION.

DO NOT SMOKE.

SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----

APPEARANCE

COLORLESS LIQUID

PHYSICAL PROPERTIES

BOILING POINT: 46.4 °C

SPECIFIC GRAVITY: 1.5389 g/cm³ @ 20 °C

REFRACTIVE INDEX:: 1.3504 @ 20 °C

VAPOR DENSITY: 6.3 (CALC.; AIR = 1)

SECTION 10. -----STABILITY AND REACTIVITY -----

CONDITIONS TO AVOID

DO NOT PIERCE OR BURN CYLINDER, EVEN AFTER USE. DO NOT SPRAY ON A NAKED FLAME OR ANY INCANDESCENT MATERIAL. HEAT, FLAMES AND SPARKS.

MATERIALS TO AVOID

STRONG OXIDIZING AGENTS, ALKALI METALS, LIGHT METALS.

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON OXIDES, HYDROGEN CHLORIDE GAS, HYDROGEN FLUORIDE.

SECTION 11. ----- TOXICOLOGICAL INFORMATION -----

ROUTE OF EXPOSURE

INHALATION: MAY BE HARMFUL IF INHALED.

INGESTION: MAY BE HARMFUL IF SWALLOWED.

SKIN: MAY BE HARMFUL IF ABSORBED THROUGH SKIN.

EYES: MAY CAUSE SEVERE EYE IRRITATION.

SIGNS AND SYMPTOMS OF EXPOSURE

TO THE BEST OF OUR KNOWLEDGE, THE TOXICOLOGICAL PROPERTIES OF THIS PRODUCT HAVE NOT BEEN FULLY DETERMINED.

SECTION 12. ----- ECOLOGICAL INFORMATION -----DATA NOT YET AVAILABLE. SECTION 13. ----- DISPOSAL CONSIDERATIONS -----APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION BURN IN A CHEMICAL INCINERATOR EOUIPPED WITH AN AFTERBURNER AND SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY FLAMMABLE. OFFER SURPLUS AND NON-RECYCLABLE SOLUTIONS TO A LICENSED DISPOSAL COMPANY. CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF THIS MATERIAL. OBSERVE ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS. SECTION 14, ----- TRANSPORT INFORMATION -----UNRESTRICTED SECTION 15. ----- REGULATORY INFORMATION -----EU ADDITIONAL CLASSIFICATION INDICATION OF DANGER: IRRITANT. SYMBOL OF DANGER: Xi RISK STATEMENTS: 36/37/38 SAFETY STATEMENTS: 23-24/25-36/37/39-45 UNITED STATES REGULATORY INFORMATION TSCA: NOT LISTED ON TSCA INVENTORY; FOR R&D USE ONLY SECTION 16. ----- OTHER INFORMATION-----

THE ABOVE INFORMATION IS BELIEVED TO BE CORRECT BUT DOES NOT PURPORT TO BE ALL INCLUSIVE AND SHALL BE USED ONLY AS A GUIDE. SYNQUEST LABS, INC. SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT.