



# SynQuest Laboratories, Inc.

PO Box 309, Alachua, FL 32616-0309

Tel. 386/462-0788; FAX 386/462-7097

## Material Safety Data Sheet

Transportation Emergency: 1-800-451-8346

Date last revised: May 29, 2015

Date printed: May 29, 2015

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

CATALOG #: 1300-5-38

NAME: 2,3,3,3-TETRACHLOROPROPENE

SYNONYM: 2,3,3,3-TETRACHLOROPROP-1-ENE; HCC-1230XF

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

CAS NUMBER: 16500-91-7

MOLECULAR FORMULA:  $C_3H_2Cl_4$

MOLECULAR WEIGHT: 179.86

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

#### LABEL PRECAUTIONARY STATEMENTS

HARMFUL BY INGESTION, INHALATION OR IN CONTACT WITH SKIN.

IRRITATING TO THE EYES, RESPIRATORY SYSTEM AND SKIN.

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

#### ORAL EXPOSURE

IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN.

#### INHALATION EXPOSURE

IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.

#### DERMAL EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER.

#### EYE EXPOSURE

IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES.

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

**EXTINGUISHING MEDIA**

SUITABLE: WATER SPRAY. CARBON DIOXIDE, DRY CHEMICAL POWDER, OR APPROPRIATE FOAM.

**FIREFIGHTING**

PROTECTIVE EQUIPMENT: WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.

SPECIFIC HAZARD(S): EMITS TOXIC FUMES UNDER FIRE CONDITIONS.

**EXPOSURE HAZARD(S)**

MATERIAL: HARMFUL. IRRITANT.

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

**PERSONAL PRECAUTIONS**

WEAR RESPIRATORY PROTECTION. AVOID BREATHING VAPORS, MIST OR GAS. ENSURE ADEQUATE VENTILATION. REMOVE ALL SOURCES OF IGNITION. EVACUATE PERSONNEL TO SAFE AREAS. BEWARE OF VAPORS ACCUMULATING TO FORM EXPLOSIVE CONCENTRATIONS. VAPORS CAN ACCUMULATE IN LOW AREAS.

**ENVIRONMENTAL PRECAUTIONS**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS. DISCHARGE INTO THE ENVIRONMENT MUST BE AVOIDED.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP**

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 (SEE SECTION 13).

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

**HANDLING**

USER EXPOSURE: AVOID CONTACT AND INHALATION. DO NOT GET IN EYES, ON SKIN, ON CLOTHING.

**STORAGE**

SUITABLE: KEEP TIGHTLY CLOSED. STORE IN A COOL DRY PLACE.

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

**ENGINEERING CONTROLS**

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

**PERSONAL PROTECTIVE EQUIPMENT**

RESPIRATORY: USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU). WHERE RISK ASSESSMENT SHOWS AIR-PURIFYING RESPIRATORS ARE APPROPRIATE USE A FULL-FACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE AXBEK (EN 14387) RESPIRATOR CARTRIDGES AS A BACKUP TO ENGINEERING CONTROLS. IF THE RESPIRATOR IS THE SOLE MEANS OF PROTECTION, USE A FULL-FACE SUPPLIED AIR RESPIRATOR.

HAND: RUBBER GLOVES.

EYE: CHEMICAL SAFETY GOGGLES.

**GENERAL HYGIENE MEASURES**

WASH THOROUGHLY AFTER HANDLING. WASH CONTAMINATED CLOTHING BEFORE REUSE.

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

APPEARANCE AND ODOR

COLORLESS LIQUID

PHYSICAL PROPERTIES

BOILING POINT: 76 - 77°C @ 70 mmHg

DENSITY: 1.5099 g/mL @ 20 °C

REFRACTIVE INDEX: 1.504 @ 20 °C

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

CHEMICAL STABILITY

STABLE UNDER RECOMMENDED STORAGE CONDITIONS.

POSSIBILITY OF HAZARDOUS REACTIONS

VAPORS MAY FORM EXPLOSIVE MIXTURE WITH AIR.

CONDITIONS TO AVOID

HEAT, FLAMES AND SPARKS. EXTREMES OF TEMPERATURE AND DIRECT SUNLIGHT.

MATERIALS TO AVOID

STRONG OXIDIZING AGENTS

HAZARDOUS DECOMPOSITION PRODUCTS

CARBON OXIDES, HYDROGEN CHLORIDE GAS

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

ROUTE OF EXPOSURE

SKIN CONTACT: CAUSES SKIN IRRITATION.

MULTIPLE ROUTES: VAPOR OR MIST IS IRRITATING TO THE EYES, MUCOUS MEMBRANES, AND UPPER RESPIRATORY TRACT. HARMFUL BY INHALATION, INGESTION, OR SKIN CONTACT/ABSORPTION.

SIGNS AND SYMPTOMS OF EXPOSURE

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED

**SECTION 12. ----- ECOLOGICAL INFORMATION -----**

DATA NOT YET AVAILABLE.

**SECTION 13. ----- DISPOSAL CONSIDERATIONS -----**

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

DISSOLVE OR MIX THE MATERIAL WITH A COMBUSTIBLE SOLVENT AND BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND SCRUBBER. OBSERVE ALL FEDERAL, STATE, AND LOCAL ENVIRONMENTAL REGULATIONS.

**SECTION 14. ----- TRANSPORT INFORMATION -----**

UNRESTRICTED

**SECTION 15. ----- REGULATORY INFORMATION -----**

EU DIRECTIVES CLASSIFICATION

HAZARD SYMBOL(S): Xn

HAZARD INDICATION: HARMFUL

RISK STATEMENTS: R20/21/22,R36/37/38

SAFETY STATEMENTS: S9, S16,S23,S24/25,S26,S36/37/39,S38,S45

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.