

# **Material Safety Data Sheet**

Transportation Emergency: 1-800-451-8346

Date last revised: October 23, 2012 Date printed: October 23, 2012

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

CATALOG #: 2301-3-21

NAME: 4,4,5,5,6,6,6-HEPTAFLUOROEX-2-EN-1-OL

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

CAS NUMBER: 679-03-8

MOLECULAR FORMULA: C<sub>6</sub>H<sub>5</sub>F<sub>7</sub>O MOLECULAR WEIGHT: 226.09

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

LABEL PRECAUTIONARY STATEMENTS

IRRITANT.

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

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

#### ORAL EXPOSURE

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

### INHALATION EXPOSURE

IF INHALED, REMOVE EXPOSED TO FRESH AIR. IF BREATHING IS DIFFICULT, CALL A PHYSICIAN.

#### DERMAL EXPOSURE

IN CASE OF EXPOSURE, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. CALL A PHYSICIAN.

#### EYE EXPOSURE

IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

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

#### **EXTINGUISHING MEDIA**

SUITABLE: WATER SPRAY, ALCOHOL RESISTANT FOAM, DRY CHEMICAL, OR CARBON DIOXIDE. COOL ALL AFFECTED CONTAINERS WITH FLOODING QUANTITIES OF WATER. 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.

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

#### PERSONAL PROTECTION

AVOID BREATHING VAPOR MIST, OR GAS. ENSURE ADEQYATE VENTILATION. WEAR PROTECTIVE EQUIPMENT INCLUDING RUBBER GLOVES, AND EYE PROTECTION. KEEP UNPROTECTED PERSONS AWAY. NORMAL MEASURES OF PREVENTIVE FIRE PROTECTION.

#### 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**

ABSORB ON DRY SAND OR VERMICULITE, SWEEP UP AND PLACE IN CONTAINER FOR DISPOSAL ACCORDING TO LOCAL REGULATIONS.

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

#### HANDLING

USER EXPOSURE: AVOID INHALATION. AVOID CONTACT WITH EYES, SKIN, AND CLOTHING. AVOID PROLONGED OR REPEATED EXPOSURE.

#### **STORAGE**

SUITABLE: TIGHTLY CLOSED CONTAINERS IN A DRY AND WELL-VENTILATED PLACE. CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE. STORE IN COOL PLACE. AVOID DIRECT SUNLIGHT. MOISTURE SENSITIVE. STORE UNDER NITROGEN. RECOMMENDED STORAGE TEMPERATURE: 2 – 8 °C

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

#### **ENGINEERING CONTROLS**

SAFETY SHOWER AND EYE BATH. MECHANICAL EXHAUST REQUIRED.

#### PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY: USE A FULL-FACE RESPIRATOR WITH MULTI-PURPOSE COMBINATION (US) OR TYPE ABEK (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. USE RESPIRATORS AND COMPONENTS TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR CEN (EU).

HAND: PROTECTIVE GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE.

EYE: CHEMICAL SAFETY GOGGLES.

# GENERAL HYGIENE MEASURES

WASH THOROUGHLY AFTER HANDLING.

# SECTION 9. ----- PHYSICAL AND CHEMICAL PROPERTIES -----APPEARANCE AND ODOR LIQUID. PHYSICAL PROPERTIES **BOILING POINT:** 65.0 - 65.5 °C /28 mmHg 1.473 g/ml @ 20 °C DENSITY: REFRACTIVE INDEX: 1.3383 @ 20 °C SECTION 10. -----STABILITY AND REACTIVITY -----STABILITY STABLE: STABLE UNDER RECOMMENDED STORAGE CONDITIONS. MATERIALS TO AVOID: STRONG OXIDIZING AGENTS. CONDITIONS TO AVOID: HEAT, FLAMES AND SPARKS, EXTREMES OF TEMPERATURE, MOISTURE AND DIRECT SUNLIGHT. HAZARDOUS DECOMPOSITION PRODUCTS HAZARDOUS DECOMPOSITION PRODUCTS: CARBON OXIDES, HYDROGEN FLUORIDE. HAZARDOUS POLYMERIZATION HAZARDOUS POLYMERIZATION: WILL NOT OCCUR. SECTION 11, ----- TOXICOLOGICAL INFORMATION -----ROUTE OF EXPOSURE INHALATION: MAY BE HARMFUL IF INHALED. IRRITANT TO THE TISSUE OF THE MUCOUS MEMBRANES AND UPPER RESPIRATORY TRACT. INGESTION: MAY BE HARMFUL IF SWALLOWED. SKIN: MAY BE HARMFUL IF ABSORBED THROUGH SKIN. CAUSES SKIN IRRITATION. EYES: CAUSES 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 - - - - -NOT YET AVAILABLE. SECTION 13. ----- DISPOSAL CONSIDERATIONS -----APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION 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
SYMBOL OF DANGER: Xi
INDICATION OF DANGER: IRRITANT.
RISK STATEMENTS: 36/37/38
SAFETY STATEMENTS: 3/7-23-24/25-26-36/37/39-45
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.