



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: December 16, 2011

Date printed December 16, 2011

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

CATALOG #: 6177-1-11

NAME: TETRAETHYL(METHYLENE)BISPHOSPHONATE

SYNONYM: TETRAETHYL METHYLENEBISPHOSPHONATE

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

CAS NUMBER: 1660-94-2

MOLECULAR FORMULA: $C_9H_{22}O_6P_2$

MOLECULAR WEIGHT: 288.21

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

LABEL PRECAUTIONARY STATEMENTS

IRRITANT.

IRRITATING TO EYES, RESPIRATORY SYSTEM AND SKIN.

TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND

TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.

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: IRRITANT.

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

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS, AND HEAVY RUBBER GLOVES.

METHODS FOR CLEANING UP

COVER WITH DRY LIME OR SODA ASH, PICK UP, KEEP IN A CLOSED CONTAINER, AND HOLD FOR WASTE DISPOSAL. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

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 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.

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:

LIQUID

PHYSICAL PROPERTIES

BOILING POINT: 171-174°C @ 11 mmHg

DENSITY: 1.162 g/mL @ 20 °C

REFRACTIVE INDEX: 1.44 @ 20 °C

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

STABILITY

MATERIALS TO AVOID: STRONG OXIDIZING AGENTS, STRONG BASES.

HAZARDOUS DECOMPOSITION PRODUCTS

HAZARDOUS DECOMPOSITION PRODUCTS: CARBON MONOXIDE, CARBON DIOXIDE, THERMAL DECOMPOSITION MAY PRODUCE TOXIC FUMES OF PHOSPHORUS OXIDES AND/OR PHOSPHINE.

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. MAY BE HARMFUL BY INHALATION, INGESTION, OR SKIN 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 -----

DOT

UNRESTRICTED

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

EU ADDITIONAL CLASSIFICATION

SYMBOL OF DANGER: Xi

INDICATION OF DANGER: IRRITANT.

R: 36/37/38

S: 26-37/38/39

US REGULATORY INFORMATION

TSCA: 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.