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## MATERIAL SAFETY DATA SHEET

SECTION 1. - - - - - - - CHEMICAL IDENTIFICATION- - - - - - -CATALOG #: 523771 TETRAMETHYLSILANE, 99.99+%, ELECTRONIC NAME: GRADE SECTION 2. - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - -CAS #: 75-76-3 MF: C4H12SI EC NO: 200-899-1 SECTION 3. - - - - - - - HAZARDS IDENTIFICATION - - - - - - -LABEL PRECAUTIONARY STATEMENTS FLAMMABLE (USA) EXTREMELY FLAMMABLE (EU) EXTREMELY FLAMMABLE. KEEP CONTAINER TIGHTLY CLOSED IN A COOL PLACE. KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING. TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES. IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE). SECTION 4. - - - - - - - - FIRST-AID MEASURES- - - - - - - - -IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN. IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN. IN CASE OF CONTACT, IMMEDIATELY WASH SKIN WITH SOAP AND COPIOUS AMOUNTS OF WATER. IN CASE OF CONTACT, IMMEDIATELY FLUSH EYES WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. SECTION 5. - - - - - - FIRE FIGHTING MEASURES - - - - -EXTINGUISHING MEDIA CARBON DIOXIDE, DRY CHEMICAL POWDER OR APPROPRIATE FOAM. DO NOT USE WATER. SPECIAL FIREFIGHTING PROCEDURES WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES. UNUSUAL FIRE AND EXPLOSIONS HAZARDS VAPOR MAY TRAVEL CONSIDERABLE DISTANCE TO SOURCE OF IGNITION AND FLASH BACK. CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS. EXTREMELY FLAMMABLE. EMITS TOXIC FUMES UNDER FIRE CONDITIONS. SECTION 6. - - - - - - ACCIDENTAL RELEASE MEASURES- - -WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES. COVER WITH DRY-LIME, SAND, OR SODA ASH. PLACE IN COVERED CONTAINERS USING NON-SPARKING TOOLS AND TRANSPORT OUTDOORS. VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE. EVACUATE AREA. SHUT OFF ALL SOURCES OF IGNITION. USE NONSPARKING TOOLS. SECTION 7. - - - - - - - HANDLING AND STORAGE- - - - - - - - -REFER TO SECTION 8. SECTION 8. - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - -SAFETY SHOWER AND EYE BATH. USE NONSPARKING TOOLS.

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MECHANICAL EXHAUST REQUIRED.
   REMOVE AND WASH CONTAMINATED CLOTHING PROMPTLY.
   WASH THOROUGHLY AFTER HANDLING.
   NIOSH/MSHA-APPROVED RESPIRATOR.
   COMPATIBLE CHEMICAL-RESISTANT GLOVES.
   CHEMICAL SAFETY GOGGLES.
   AVOID CONTACT WITH EYES, SKIN AND CLOTHING.
   DO NOT BREATHE VAPOR.
   AVOID PROLONGED OR REPEATED EXPOSURE.
   ALWAYS OPEN CONTAINERS SLOWLY TO ALLOW ANY EXCESS PRESSURE TO VENT.
   KEEP CONTAINER CLOSED.
   KEEP AWAY FROM HEAT, SPARKS, AND OPEN FLAME.
   STORE UNDER N2.
   REFRIGERATE.
   MAY DEVELOP PRESSURE.
SECTION 9. - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - -
 PHYSICAL PROPERTIES
                       26 C TO 28 C
   BOILING POINT:
                              -17 F
   FLASHPOINT
   SPECIFIC GRAVITY: 0.648
SECTION 10. - - - - - - - - - STABILITY AND REACTIVITY - - - -
 STABILITY
   STABLE.
  INCOMPATIBILITIES
   PROTECT FROM MOISTURE.
   STRONG ACIDS
   STRONG BASES
   STRONG OXIDIZING AGENTS
 HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
   CARBON MONOXIDE, CARBON DIOXIDE
   SILICON OXIDE
 HAZARDOUS POLYMERIZATION
   WILL NOT OCCUR.
SECTION 11. - - - - - - TOXICOLOGICAL INFORMATION - - - - - -
 ACUTE EFFECTS
   MAY CAUSE SKIN IRRITATION.
   MAY BE HARMFUL IF ABSORBED THROUGH THE SKIN.
   MAY CAUSE EYE IRRITATION.
   MAY BE HARMFUL IF INHALED.
   MATERIAL MAY BE IRRITATING TO MUCOUS MEMBRANES AND UPPER
   RESPIRATORY TRACT.
   MAY BE HARMFUL IF SWALLOWED.
    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 - - - - - -
    CONTACT A LICENSED PROFESSIONAL WASTE DISPOSAL SERVICE TO DISPOSE OF
    THIS MATERIAL.
    BURN IN A CHEMICAL INCINERATOR EQUIPPED WITH AN AFTERBURNER AND
    SCRUBBER BUT EXERT EXTRA CARE IN IGNITING AS THIS MATERIAL IS HIGHLY
    FLAMMABLE.
    OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.
SECTION 14. - - - - - - TRANSPORT INFORMATION - - - - - -
   CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.
SECTION 15. - - - - - - REGULATORY INFORMATION - - - - - -
  EUROPEAN INFORMATION
    EXTREMELY FLAMMABLE
    R 12
   EXTREMELY FLAMMABLE.
    s 3/7
    KEEP CONTAINER TIGHTLY CLOSED IN A COOL PLACE.
    KEEP AWAY FROM SOURCES OF IGNITION - NO SMOKING.
    TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGES.
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IN CASE OF ACCIDENT OR IF YOU FEEL UNWELL, SEEK MEDICAL ADVICE IMMEDIATELY (SHOW THE LABEL WHERE POSSIBLE).

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. SIGMA, ALDRICH, FLUKA SHALL NOT BE HELD LIABLE FOR ANY DAMAGE RESULTING FROM HANDLING OR FROM CONTACT WITH THE ABOVE PRODUCT. SEE REVERSE SIDE OF INVOICE OR PACKING SLIP FOR ADDITIONAL TERMS AND CONDITIONS OF SALE. COPYRIGHT 2001 SIGMA-ALDRICH CO. LICENSE GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY