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**S A F E T Y   D A T A   S H E E T**

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**SECTION 1. CHEMICAL IDENTIFICATION**

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|                                 |   |
|---------------------------------|---|
| CATALOG #:                      | 215022  |
| NAME:                           | Tetraethyl orthosilicate  |
| SYNONYMS:                       | Ethyl orthosilicate<br>Orthosilicic acid tetraethyl ester                 |
| 24 HOUR EMERGENCY<br>TELEPHONE: | Within USA/Canada: +1 800-633-8253<br>Outside USA/Canada: +1 801-629-0667 |
| TO REQUEST AN MSDS:             | +1 888-535-2444   |
| CUSTOMER<br>SERVICE:            | +1 888-535-2444   |

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**SECTION 2. HAZARDS IDENTIFICATION**

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**CLASSIFICATION OF THE SUBSTANCE OR MIXTURE****GHS CLASSIFICATION IN ACCORDANCE WITH 29 CFR 1910 (OSHA HCS)**

FLAMMABLE LIQUIDS (CATEGORY 3), H226  
ACUTE TOXICITY, INHALATION (CATEGORY 4), H332  
SKIN IRRITATION (CATEGORY 2), H315  
EYE IRRITATION (CATEGORY 2A), H319  
SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE (CATEGORY 3),  
RESPIRATORY SYSTEM, H335

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

**GHS LABEL ELEMENTS, INCLUDING PRECAUTIONARY STATEMENTS****PICTOGRAM****SIGNAL WORD****WARNING****HAZARD STATEMENT(S)**

|      |                                   |
|------|-----------------------------------|
| H226 | FLAMMABLE LIQUID AND VAPOUR.      |
| H315 | CAUSES SKIN IRRITATION.           |
| H319 | CAUSES SERIOUS EYE IRRITATION.    |
| H332 | HARMFUL IF INHALED.               |
| H335 | MAY CAUSE RESPIRATORY IRRITATION. |

PRECAUTIONARY STATEMENT(S)

|                    |  |
|--------------------|--|
| P210               | KEEP AWAY FROM HEAT/SPARKS/OPEN FLAMES/HOT SURFACES. - NO SMOKING.   |
| P233               | KEEP CONTAINER TIGHTLY CLOSED.   |
| P240               | GROUND/BOND CONTAINER AND RECEIVING EQUIPMENT.   |
| P241               | USE EXPLOSION-PROOF ELECTRICAL/ VENTILATING/ LIGHTING/ EQUIPMENT.  |
| P242               | USE ONLY NON-SPARKING TOOLS.   |
| P243               | TAKE PRECAUTIONARY MEASURES AGAINST STATIC DISCHARGE.  |
| P261               | AVOID BREATHING DUST/ FUME/ GAS/ MIST/ VAPOURS/ SPRAY.   |
| P264               | WASH SKIN THOROUGHLY AFTER HANDLING.   |
| P271               | USE ONLY OUTDOORS OR IN A WELL-VENTILATED AREA.  |
| P280               | WEAR PROTECTIVE GLOVES/ EYE PROTECTION/ FACE PROTECTION.   |
| P303 + P361 + P353 | IF ON SKIN (OR HAIR): REMOVE/ TAKE OFF IMMEDIATELY ALL CONTAMINATED CLOTHING. RINSE SKIN WITH WATER/ SHOWER.   |
| P304 + P340 + P312 | IF INHALED: REMOVE VICTIM TO FRESH AIR AND KEEP AT REST IN A POSITION COMFORTABLE FOR BREATHING. CALL A POISON CENTER OR DOCTOR/ PHYSICIAN IF YOU FEEL UNWELL. |
| P305 + P351 + P338 | IF IN EYES: RINSE CAUTIOUSLY WITH WATER FOR SEVERAL MINUTES. REMOVE CONTACT LENSES, IF PRESENT AND EASY TO DO. CONTINUE RINSING.                               |
| P332 + P313        | IF SKIN IRRITATION OCCURS: GET MEDICAL ADVICE/ ATTENTION.  |
| P337 + P313        | IF EYE IRRITATION PERSISTS: GET MEDICAL ADVICE/ ATTENTION.   |
| P362               | TAKE OFF CONTAMINATED CLOTHING AND WASH BEFORE REUSE.  |
| P370 + P378        | IN CASE OF FIRE: USE DRY SAND, DRY CHEMICAL OR ALCOHOL-RESISTANT FOAM FOR EXTINCTION.  |
| P403 + P233        | STORE IN A WELL-VENTILATED PLACE. KEEP CONTAINER TIGHTLY CLOSED.   |
| P403 + P235        | STORE IN A WELL-VENTILATED PLACE. KEEP COOL.   |
| P405               | STORE LOCKED UP.   |
| P501               | DISPOSE OF CONTENTS/ CONTAINER TO AN APPROVED WASTE DISPOSAL PLANT.  |

**HAZARDS NOT OTHERWISE CLASSIFIED (HNOC) OR NOT COVERED BY GHS** NONE

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**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS**

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|         |  |
|---------|--|
| MF:     | C <sub>8</sub> H <sub>20</sub> O <sub>4</sub> Si |
| MW:     | 208.33   |
| CAS-NO. | 78-10-4  |

PURITY:  $\geq 99\%$  (GC)

#### HAZARDOUS COMPONENTS

| COMPONENT                  | CLASSIFICATION   | CONCENTRATION |
|----------------------------|--|---------------|
| <b>TETRAETHYL SILICATE</b> |  |               |
|                            | FLAM. LIQ. 3; ACUTE TOX. 4;<br>SKIN IRRIT. 2; EYE IRRIT. 2A;<br>STOT SE 3; H226, H315, H319,<br>H332, H335 | $\leq 100\%$  |

FOR THE FULL TEXT OF THE H-STATEMENTS MENTIONED IN THIS SECTION, SEE SECTION 16.

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## SECTION 4. FIRST-AID MEASURES

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### DESCRIPTION OF FIRST AID MEASURES

|   |   |
|---|---|
| <b>GENERAL ADVICE</b>   | CONSULT A PHYSICIAN. SHOW THIS SAFETY DATA SHEET TO THE DOCTOR IN ATTENDANCE. MOVE OUT OF DANGEROUS AREA.                   |
| <b>IF INHALED</b>   | IF BREATHED IN, MOVE PERSON INTO FRESH AIR. IF NOT BREATHING, GIVE ARTIFICIAL RESPIRATION. CONSULT A PHYSICIAN.             |
| <b>IN CASE OF SKIN CONTACT</b>  | WASH OFF WITH SOAP AND PLENTY OF WATER. CONSULT A PHYSICIAN.  |
| <b>IN CASE OF EYE CONTACT</b>   | RINSE THOROUGHLY WITH PLENTY OF WATER FOR AT LEAST 15 MINUTES AND CONSULT A PHYSICIAN.                                      |
| <b>IF SWALLOWED</b>   | DO NOT INDUCE VOMITING. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON. RINSE MOUTH WITH WATER. CONSULT A PHYSICIAN. |
| <b>MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED</b>                | THE MOST IMPORTANT KNOWN SYMPTOMS AND EFFECTS ARE DESCRIBED IN THE LABELLING (SEE SECTION 2.2) AND/OR IN SECTION 11         |
| <b>INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED</b> | NO DATA AVAILABLE   |

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## SECTION 5. FIRE AND EXPLOSION DATA

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### EXTINGUISHING MEDIA

|                                     |  |
|-------------------------------------|--|
| <b>SUITABLE EXTINGUISHING MEDIA</b> | USE WATER SPRAY, ALCOHOL-RESISTANT FOAM, DRY CHEMICAL OR CARBON DIOXIDE. |
|-------------------------------------|--|

**SPECIAL HAZARDS  
ARISING FROM THE  
SUBSTANCE OR MIXTURE**

NO DATA AVAILABLE

**ADVICE FOR  
FIREFIGHTERS**

WEAR SELF-CONTAINED BREATHING APPARATUS FOR  
FIREFIGHTING IF NECESSARY.

**FURTHER INFORMATION**

UNDER FIRE CONDITIONS, MATERIAL MAY DECOMPOSE  
TO FORM FLAMMABLE AND/OR EXPLOSIVE MIXTURES  
IN AIR. USE WATER SPRAY TO COOL UNOPENED  
CONTAINERS.

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**SECTION 6. ACCIDENTAL RELEASE MEASURES**

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**PERSONAL  
PRECAUTIONS,  
PROTECTIVE  
EQUIPMENT AND  
EMERGENCY  
PROCEDURES**

USE PERSONAL PROTECTIVE EQUIPMENT. AVOID  
BREATHING VAPOURS, MIST OR GAS. ENSURE  
ADEQUATE VENTILATION. REMOVE ALL SOURCES OF  
IGNITION. EVACUATE PERSONNEL TO SAFE AREAS.  
BEWARE OF VAPOURS ACCUMULATING TO FORM  
EXPLOSIVE CONCENTRATIONS. VAPOURS CAN  
ACCUMULATE IN LOW AREAS.  
FOR PERSONAL PROTECTION SEE SECTION 8.

**ENVIRONMENTAL  
PRECAUTIONS**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO  
DO SO. DO NOT LET PRODUCT ENTER DRAINS.

**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).

**REFERENCE TO OTHER  
SECTIONS**

FOR DISPOSAL SEE SECTION 13.

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**SECTION 7. HANDLING AND STORAGE**

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**PRECAUTIONS FOR SAFE  
HANDLING**

AVOID CONTACT WITH SKIN AND EYES. AVOID  
INHALATION OF VAPOUR OR MIST.  
KEEP AWAY FROM SOURCES OF IGNITION - NO  
SMOKING. TAKE MEASURES TO PREVENT THE BUILD UP  
OF ELECTROSTATIC CHARGE.  
FOR PRECAUTIONS SEE SECTION 2.2.

**CONDITIONS FOR SAFE  
STORAGE, INCLUDING  
ANY  
INCOMPATIBILITIES**

STORE UNDER NITROGEN. KEEP CONTAINER TIGHTLY  
CLOSED IN A DRY AND WELL-VENTILATED PLACE.  
CONTAINERS WHICH ARE OPENED MUST BE CAREFULLY  
RESEALED AND KEPT UPRIGHT TO PREVENT LEAKAGE.  
MOISTURE SENSITIVE.  
STORAGE CLASS (TRGS 510): FLAMMABLE LIQUIDS

**SPECIFIC END USE(S)**

APART FROM THE USES MENTIONED IN SECTION 1.2 NO OTHER SPECIFIC USES ARE STIPULATED

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****CONTROL PARAMETERS****COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

| <b>COMPONENT</b>    | <b>CAS-NO.</b> | <b>VALUE</b>  | <b>CONTROL PARAMETERS</b>          | <b>BASIS</b>   |
|---------------------|----------------|---|------------------------------------|--|
| TETRAETHYL SILICATE | 78-10-4        | TWA   | 10.000000 PPM                      | USA. ACGIH THRESHOLD LIMIT VALUES (TLV)  |
|                     | REMARKS        | UPPER RESPIRATORY TRACT IRRITATION<br>EYE IRRITATION<br>KIDNEY DAMAGE |                                    |  |
|                     |                | TWA   | 10 PPM                             | USA. ACGIH THRESHOLD LIMIT VALUES (TLV)  |
|                     |                | UPPER RESPIRATORY TRACT IRRITATION<br>EYE IRRITATION<br>KIDNEY DAMAGE |                                    |  |
|                     |                | TWA   | 100.000000 PPM<br>850.000000 MG/M3 | USA. OCCUPATIONAL EXPOSURE LIMITS (OSHA) - TABLE Z-1 LIMITS FOR AIR CONTAMINANTS |
|                     |                | THE VALUE IN MG/M3 IS APPROXIMATE.                                    |                                    |  |
|                     |                | TWA   | 10.000000 PPM<br>85.000000 MG/M3   | USA. NIOSH RECOMMENDED EXPOSURE LIMITS   |

**EXPOSURE CONTROLS****APPROPRIATE ENGINEERING CONTROLS**

HANDLE IN ACCORDANCE WITH GOOD INDUSTRIAL HYGIENE AND SAFETY PRACTICE. WASH HANDS BEFORE BREAKS AND AT THE END OF WORKDAY.

**PERSONAL PROTECTIVE EQUIPMENT****EYE/FACE PROTECTION**

FACE SHIELD AND SAFETY GLASSES USE EQUIPMENT FOR EYE PROTECTION TESTED AND APPROVED UNDER APPROPRIATE GOVERNMENT STANDARDS SUCH AS NIOSH (US) OR EN 166(EU).

**SKIN PROTECTION**

HANDLE WITH GLOVES. GLOVES MUST BE INSPECTED PRIOR TO USE. USE PROPER GLOVE REMOVAL TECHNIQUE (WITHOUT TOUCHING GLOVE'S OUTER SURFACE) TO AVOID SKIN CONTACT WITH THIS PRODUCT. DISPOSE OF CONTAMINATED GLOVES AFTER USE IN ACCORDANCE WITH APPLICABLE LAWS AND GOOD LABORATORY PRACTICES. WASH AND DRY HANDS.

**FULL CONTACT**

MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.4 MM  
BREAK THROUGH TIME: 480 MIN  
MATERIAL TESTED:CAMATRIL (KCL 730, SIZE M)

**SPLASH CONTACT**

MATERIAL: NITRILE RUBBER  
MINIMUM LAYER THICKNESS: 0.2 MM  
BREAK THROUGH TIME: 30 MIN  
MATERIAL TESTED:DERMATRIL P (KCL 743 , SIZE M)

IF USED IN SOLUTION, OR MIXED WITH OTHER SUBSTANCES, AND UNDER CONDITIONS WHICH DIFFER FROM EN 374, CONTACT THE SUPPLIER OF THE CE APPROVED GLOVES. THIS RECOMMENDATION IS ADVISORY ONLY AND MUST BE EVALUATED BY AN INDUSTRIAL HYGIENIST AND SAFETY OFFICER FAMILIAR WITH THE SPECIFIC SITUATION OF ANTICIPATED USE BY OUR CUSTOMERS. IT SHOULD NOT BE CONSTRUED AS OFFERING AN APPROVAL FOR ANY SPECIFIC USE SCENARIO.

**BODY PROTECTION**

COMPLETE SUIT PROTECTING AGAINST CHEMICALS, FLAME RETARDANT ANTISTATIC PROTECTIVE CLOTHING., THE TYPE OF PROTECTIVE EQUIPMENT MUST BE SELECTED ACCORDING TO THE CONCENTRATION AND AMOUNT OF THE DANGEROUS SUBSTANCE AT THE SPECIFIC WORKPLACE.

**RESPIRATORY PROTECTION**

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. F 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).

**CONTROL OF ENVIRONMENTAL EXPOSURE**

PREVENT FURTHER LEAKAGE OR SPILLAGE IF SAFE TO DO SO. DO NOT LET PRODUCT ENTER DRAINS.

**INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES**

|  |   |
|--|---|
| APPEARANCE                                   | Clear colorless liquid  |
| ODOUR  | NO DATA AVAILABLE   |
| ODOUR THRESHOLD                              | NO DATA AVAILABLE   |
| PH   | NO DATA AVAILABLE   |
| MELTING POINT/FREEZING POINT                 |   |
| INITIAL BOILING POINT AND BOILING RANGE      |   |
| FLASH POINT                                  |   |
| EVAPORATION RATE                             | NO DATA AVAILABLE   |
| FLAMMABILITY (SOLID, GAS)                    | NO DATA AVAILABLE   |
| UPPER/LOWER FLAMMABILITY OR EXPLOSIVE LIMITS | UPPER EXPLOSION LIMIT: 23 %(V)<br>LOWER EXPLOSION LIMIT: 1.3 %(V) |
| VAPOUR PRESSURE                              | 10.0 HPA (7.5 MMHG) AT 20 C                                       |
| VAPOUR DENSITY                               | 7.19 - (AIR = 1.0)  |
| RELATIVE DENSITY                             | 0.933 g/mL at 20 °C   |
| WATER SOLUBILITY                             | NO DATA AVAILABLE   |
| PARTITION COEFFICIENT: N- OCTANOL/WATER      | NO DATA AVAILABLE   |
| AUTO-IGNITION TEMPERATURE                    | 230 C   |
| DECOMPOSITION TEMPERATURE                    | NO DATA AVAILABLE   |
| VISCOSITY                                    | NO DATA AVAILABLE   |
| EXPLOSIVE PROPERTIES                         | NO DATA AVAILABLE   |
| OXIDIZING PROPERTIES                         | NO DATA AVAILABLE   |

**OTHER SAFETY INFORMATION**

|                         |                    |
|-------------------------|--------------------|
| RELATIVE VAPOUR DENSITY | 7.19 - (AIR = 1.0) |
|-------------------------|--------------------|

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**SECTION 10. STABILITY AND REACTIVITY**

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|   |  |
|---|--|
| <b>REACTIVITY</b>                         | NO DATA AVAILABLE  |
| <b>CHEMICAL STABILITY</b>                 | MAY DECOMPOSE ON EXPOSURE TO MOIST AIR OR WATER.<br>STABLE UNDER RECOMMENDED STORAGE CONDITIONS. |
| <b>POSSIBILITY OF HAZARDOUS REACTIONS</b> | NO DATA AVAILABLE  |
| <b>CONDITIONS TO AVOID</b>                | HEAT, FLAMES AND SPARKS.   |
| <b>INCOMPATIBLE MATERIALS</b>             | STRONG OXIDIZING AGENTS, STRONG ACIDS  |
| <b>HAZARDOUS DECOMPOSITION PRODUCTS</b>   | OTHER DECOMPOSITION PRODUCTS - NO DATA AVAILABLE<br>IN THE EVENT OF FIRE: SEE SECTION 5          |

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**SECTION 11. TOXICOLOGICAL INFORMATION**

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**INFORMATION ON TOXICOLOGICAL EFFECTS**

|   |   |
|---|---|
| <b>ACUTE TOXICITY</b>   | LD50 ORAL - RAT - 6,270 MG/KG<br>LD50 DERMAL - RABBIT - 5,878 MG/KG   |
| <b>SKIN<br/>CORROSION/IRRITATION</b>                              | SKIN - RABBIT<br>RESULT: SKIN IRRITATION - 24 H   |
| <b>SERIOUS EYE<br/>DAMAGE/EYE IRRITATION</b>                      | EYES - RABBIT<br>RESULT: MILD EYE IRRITATION - 24 H   |
| <b>RESPIRATORY OR SKIN<br/>SENSITISATION</b>                      | NO DATA AVAILABLE   |
| <b>GERM CELL<br/>MUTAGENICITY</b>                                 | NO DATA AVAILABLE   |
| <b>CARCINOGENICITY</b>  |   |
| IARC:   | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS PROBABLE, POSSIBLE OR CONFIRMED HUMAN CARCINOGEN BY IARC.   |
| ACGIH:  | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY ACGIH.  |
| NTP:  | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A KNOWN OR ANTICIPATED CARCINOGEN BY NTP.   |
| OSHA:   | NO COMPONENT OF THIS PRODUCT PRESENT AT LEVELS GREATER THAN OR EQUAL TO 0.1% IS IDENTIFIED AS A CARCINOGEN OR POTENTIAL CARCINOGEN BY OSHA.   |
| <b>REPRODUCTIVE TOXICITY</b>                                      | NO DATA AVAILABLE   |
| <b>SPECIFIC TARGET ORGAN<br/>TOXICITY - SINGLE<br/>EXPOSURE</b>   | MAY CAUSE RESPIRATORY IRRITATION.   |
| <b>SPECIFIC TARGET ORGAN<br/>TOXICITY - REPEATED<br/>EXPOSURE</b> | NO DATA AVAILABLE   |
| <b>ASPIRATION HAZARD</b>  | NO DATA AVAILABLE   |
| <b>ADDITIONAL<br/>INFORMATION</b>                                 | RTECS: VV9450000<br>TO THE BEST OF OUR KNOWLEDGE, THE CHEMICAL, PHYSICAL, AND TOXICOLOGICAL PROPERTIES HAVE NOT BEEN THOROUGHLY INVESTIGATED.<br>LIVER - IRREGULARITIES - BASED ON HUMAN EVIDENCE |



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**SECTION 12. ECOLOGICAL INFORMATION**

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|   |  |
|---|--|
| <b>TOXICITY</b>                           | NO DATA AVAILABLE  |
| <b>PERSISTENCE AND DEGRADABILITY</b>      | NO DATA AVAILABLE  |
| <b>BIOACCUMULATIVE POTENTIAL</b>          | NO DATA AVAILABLE  |
| <b>MOBILITY IN SOIL</b>                   | NO DATA AVAILABLE  |
| <b>RESULTS OF PBT AND VPVB ASSESSMENT</b> | PBT/VPVB ASSESSMENT NOT AVAILABLE AS CHEMICAL SAFETY ASSESSMENT NOT REQUIRED/NOT CONDUCTED |
| <b>OTHER ADVERSE EFFECTS</b>              | NO DATA AVAILABLE  |

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**SECTION 13. DISPOSAL CONSIDERATIONS**

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**WASTE TREATMENT METHODS**

|                               |  |
|-------------------------------|--|
| <b>PRODUCT</b>                | BURN IN A CHEMICAL INCINERATOR EQUIPPED 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. |
| <b>CONTAMINATED PACKAGING</b> | DISPOSE OF AS UNUSED PRODUCT.  |

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**SECTION 14. TRANSPORT INFORMATION**

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**DOT (US)**

|                           |                     |
|---------------------------|---------------------|
| PROPER SHIPPING NAME:     | TETRAETHYL SILICATE |
| UN NUMBER:                | 1292                |
| CLASS:                    | 3                   |
| PACKING GROUP:            | III                 |
| REPORTABLE QUANTITY (RQ): |                     |
| POISON INHALATION HAZARD: | NO                  |

**IMDG**

|                       |                     |
|-----------------------|---------------------|
| PROPER SHIPPING NAME: | TETRAETHYL SILICATE |
| UN NUMBER:            | 1292                |

CLASS: 3  
PACKING GROUP: III  
EMS-NO: F-E, S-D  
MARINE POLLUTANT: YES

**IATA**

PROPER SHIPPING NAME: TETRAETHYL SILICATE  
UN NUMBER: 1292  
CLASS: 3  
PACKING GROUP: III

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**SECTION 15. REGULATORY INFORMATION**

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**SARA 302 COMPONENTS** NO CHEMICALS IN THIS MATERIAL ARE SUBJECT TO THE REPORTING REQUIREMENTS OF SARA TITLE III, SECTION 302.

**SARA 313 COMPONENTS** THIS MATERIAL DOES NOT CONTAIN ANY CHEMICAL COMPONENTS WITH KNOWN CAS NUMBERS THAT EXCEED THE THRESHOLD (DEMINIMIS) REPORTING LEVELS ESTABLISHED BY SARA TITLE III, SECTION 313.

**SARA 311/312 HAZARDS** FIRE HAZARD, ACUTE HEALTH HAZARD, CHRONIC HEALTH HAZARD

**MASSACHUSETTS RIGHT TO KNOW COMPONENTS**

|                          | CAS-NO. | REVISION DATE |
|--------------------------|---------|---------------|
| Tetraethyl orthosilicate | 78-10-4 | 3/1/2007      |

**PENNSYLVANIA RIGHT TO KNOW COMPONENTS**

|                          | CAS-NO. | REVISION DATE |
|--------------------------|---------|---------------|
| Tetraethyl orthosilicate | 78-10-4 | 3/1/2007      |

**NEW JERSEY RIGHT TO KNOW COMPONENTS**

|                          | CAS-NO. | REVISION DATE |
|--------------------------|---------|---------------|
| Tetraethyl orthosilicate | 78-10-4 | 3/1/2007      |

**CALIFORNIA PROP. 65 COMPONENTS**

THIS PRODUCT DOES NOT CONTAIN ANY CHEMICALS KNOWN TO STATE OF CALIFORNIA TO CAUSE CANCER, BIRTH DEFECTS, OR ANY OTHER REPRODUCTIVE HARM.

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**SECTION 16. OTHER INFORMATION**

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**FULL TEXT OF H-STATEMENTS REFERRED TO UNDER SECTIONS 2 AND 3.**

|            |                                |
|------------|--------------------------------|
| ACUTE TOX. | ACUTE TOXICITY                 |
| EYE IRRIT. | EYE IRRITATION                 |
| FLAM. LIQ. | FLAMMABLE LIQUIDS              |
| H226       | FLAMMABLE LIQUID AND VAPOUR.   |
| H315       | CAUSES SKIN IRRITATION.        |
| H319       | CAUSES SERIOUS EYE IRRITATION. |
| H332       | HARMFUL IF INHALED.            |

H335  
SKIN IRRIT.

MAY CAUSE RESPIRATORY IRRITATION.  
SKIN IRRITATION

**HMIS RATING**

|                        |   |
|------------------------|---|
| HEALTH HAZARD:         | 2 |
| CHRONIC HEALTH HAZARD: | * |
| FLAMMABILITY:          | 2 |
| PHYSICAL HAZARD        | 0 |

**NFPA RATING**

|                    |   |
|--------------------|---|
| HEALTH HAZARD:     | 3 |
| FIRE HAZARD:       | 2 |
| REACTIVITY HAZARD: | 0 |

MSDS LEGEND

|        |  |
|--------|--|
| MW:    | MOLECULAR WEIGHT   |
| MF:    | MOLECULAR FORMULA  |
| VOC:   | VOLATILE ORGANIC COMPOUNDS                               |
| ACGIH: | AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIAL HYGINISTS |
| CAS:   | CHEMICAL ABSTRACTS SERIVE REGISTRY NUMBER                |
| OSHA:  | OCCUPATIONAL SAFETY AND HEALTH ADMINISTRATION            |
| PEL:   | PERMISSIBLE EXPOSURE LIMIT (OSHA)                        |
| TLV:   | THRESHOLD LIMIT VALUE (ACGIH)                            |

IMPORTANT:

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