1. PRODUCT AND COMPANY IDENTIFICATION

Product name : (3-Aminopropyl)triethoxysilane
Product Number : 09324
Brand : Fluka
Company : Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO 63103
USA
Telephone : +1 800-325-5832
Fax : +1 800-325-5052
Emergency Phone # : (314) 776-6555

2. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms : 3-Triethoxysilylpropylamine
Formula : C9H23NO3Si
Molecular Weight : 221.37 g/mol

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<th>CAS-No.</th>
<th>EC-No.</th>
<th>Index-No.</th>
<th>Concentration</th>
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<td>213-048-4</td>
<td>612-108-00-0</td>
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3. HAZARDS IDENTIFICATION

Emergency Overview

OSHA Hazards
Target Organ Effect
Harmful by ingestion.
Corrosive

Target Organs
Nerves., Liver, Kidney

HMIS Classification
Health Hazard: 3
Chronic Health Hazard: *
Flammability: 1
Physical hazards: 1

NFPA Rating
Health Hazard: 3
Fire: 1
Reactivity Hazard: 1

Potential Health Effects
Inhalation
May be harmful if inhaled. Material is extremely destructive to the tissue of the
mucous membranes and upper respiratory tract. May cause respiratory tract
irritation.

Skin
May be harmful if absorbed through skin. Causes skin burns.

Eyes
May cause eye irritation. Causes eye burns.

Ingestion
Harmful if swallowed. Causes burns.

4. FIRST AID MEASURES

General advice
Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

If inhaled
If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

In case of skin contact
Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.

In case of eye contact
Continue rinsing eyes during transport to hospital. Rinse thoroughly with plenty of water for at least 15 minutes and
consult a physician.

If swallowed
Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult
a physician.

5. FIRE-FIGHTING MEASURES

Flammable properties
Flash point 98 °C (208 °F) - closed cup
Ignition no data available

Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for fire-fighters
Wear self contained breathing apparatus for fire fighting if necessary.

Further information
Under fire conditions, material may decompose to form flammable and/or explosive mixtures in air.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Use personal protective equipment. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.

Environmental precautions
Do not let product enter drains.

Methods for cleaning up
Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

7. HANDLING AND STORAGE

Handling
Avoid inhalation of vapour or mist.
Normal measures for preventive fire protection.

Storage
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. Store under inert gas.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Contains no substances with occupational exposure limit values.

Personal protective equipment

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. 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 protection
Handle with gloves.

Eye protection
Safety glasses

Skin and body protection
Choose body protection according to the amount and concentration of the dangerous substance at the work place.

Hygiene measures
Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Form  liquid, clear

Colour  colourless

Safety data

pH  no data available

Melting point  no data available

Boiling point  213 - 216 °C (415 - 421 °F)

Flash point  98 °C (208 °F) - closed cup

Ignition temperature  no data available

Lower explosion limit  0.8 % (V)

Upper explosion limit  4.5 % (V)

Vapour pressure  < 13 hPa (< 10 mmHg) at 100 °C (212 °F)

133 hPa (100 mmHg) at 155 °C (311 °F)

Density  0.949 g/cm³

Water solubility  no data available

Relative vapour density  7.64

10. STABILITY AND REACTIVITY
**Storage stability**
Stable under recommended storage conditions. May decompose on exposure to moist air or water.

**Materials to avoid**
Strong oxidizing agents, Acids

**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), silicon oxides

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### 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity
- **LD50 Oral - rat** - 1,780 mg/kg
- **LD50 Dermal - rabbit** - 3.8 g/kg

#### Irritation and corrosion
- **Skin - rabbit** - Severe skin irritation - 24 h
- **Eyes - rabbit** - Severe eye irritation - 24 h

#### Sensitisation
no data available

#### Chronic exposure

**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.

#### Signs and Symptoms of Exposure
Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting

#### Potential Health Effects

**Inhalation**
May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. May cause respiratory tract irritation.

**Skin**
May be harmful if absorbed through skin. Causes skin burns.

**Eyes**
May cause eye irritation. Causes eye burns.

**Ingestion**
Harmful if swallowed. Causes burns.

**Target Organs**
Nerves., Liver, Kidney,

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### 12. ECOLOGICAL INFORMATION

#### Elimination information (persistence and degradability)
no data available

#### Ecotoxicity effects
13. DISPOSAL CONSIDERATIONS

Product
Observe all federal, state, and local environmental regulations. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Contaminated packaging
Dispose of as unused product.

14. TRANSPORT INFORMATION

DOT (US)
UN-Number: 2735 Class: 8 Packing group: II
Proper shipping name: Amines, liquid, corrosive, n.o.s. (3-Aminopropyltriethoxysilane)

IMDG
UN-Number: 2735 Class: 8 Packing group: II EMS-No: F-A, S-B
Proper shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (3-Aminopropyltriethoxysilane)
Marine pollutant: No

IATA
UN-Number: 2735 Class: 8 Packing group: II
Proper shipping name: Amines, liquid, corrosive n.o.s. (3-Aminopropyltriethoxysilane)

15. REGULATORY INFORMATION

OSHA Hazards
Target Organ Effect, Harmful by ingestion., Corrosive

TSCA Status
On TSCA Inventory

DSL Status
All components of this product are on the Canadian DSL list.

SARA 302 Components
SARA 302: No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
SARA 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components
No Components Listed

Pennsylvania Right To Know Components

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New Jersey Right To Know Components

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California Prop. 65 Components
This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Further information
Copyright 2008 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Co., 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.