

SAFETY DATA SHEET

Creation Date 22-Sep-2009 Revision Date 26-Jul-2018 Revision Number 5

1. Identification

Product Name 3-[2-(2-Aminoethylamino)ethylamino]propyl-trimethoxysilane

Cat No.: AC346170000; AC346170250; AC346171000; AC346175000

CAS-No 35141-30-1

Synonyms (3-(Trimethoxysilyl)propyl)diethylenetriamine

Recommended Use Laboratory chemicals.

Uses advised against Food, drug, pesticide or biocidal product use

Details of the supplier of the safety data sheet

Company

Fisher Scientific Acros Organics
One Reagent Lane One Reagent Lane
Fair Lawn, NJ 07410 Fair Lawn, NJ 07410

Tel: (201) 796-7100

Emergency Telephone Number

For information **US** call: 001-800-ACROS-01 / **Europe** call: +32 14 57 52 11 Emergency Number **US**:001-201-796-7100 / **Europe**: +32 14 57 52 99 **CHEMTREC** Tel. No.**US**:001-800-424-9300 / **Europe**:001-703-527-3887

2. Hazard(s) identification

Classification

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Acute Inhalation Toxicity - Vapors Category 4
Serious Eye Damage/Eye Irritation Category 1
Skin Sensitization Category 1

Label Elements

Signal Word

Danger

Hazard Statements

May cause an allergic skin reaction Causes serious eye damage Harmful if inhaled



Precautionary Statements

Prevention

Avoid breathing dust/fume/gas/mist/vapors/spray Use only outdoors or in a well-ventilated area

Wear protective gloves/protective clothing/eye protection/face protection Contaminated work clothing should not be allowed out of the workplace

Inhalation

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

Skin

IF ON SKIN: Wash with plenty of soap and water

If skin irritation or rash occurs: Get medical advice/attention

Wash contaminated clothing before reuse

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing Immediately call a POISON CENTER or doctor/physician

Disposal

Dispose of contents/container to an approved waste disposal plant

Hazards not otherwise classified (HNOC)

Toxic to aquatic life with long lasting effects

3. Composition/Information on Ingredients

Component	CAS-No	Weight %
1,2-Ethanediamine,	35141-30-1	>95
N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]-		

4. First-aid measures

General Advice If symptoms persist, call a physician.

Eye Contact Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get

medical attention.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. If skin irritation persists,

call a physician.

Inhalation Move to fresh air. If not breathing, give artificial respiration. Get medical attention if

symptoms occur.

Ingestion Clean mouth with water and drink afterwards plenty of water.

Most important symptoms and

effects

Causes severe eye damage. May cause allergic skin reaction. Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be

3-[2-(2-Aminoethylamino)ethylamino]propyl-trimethox ysilane

headache, dizziness, tiredness, nausea and vomiting

Notes to Physician Treat symptomatically

5. Fire-fighting measures

Suitable Extinguishing Media Carbon dioxide (CO₂). Dry chemical. Chemical foam.

Unsuitable Extinguishing Media No information available

Flash Point 137 °C / 278.6 °F

Method - No information available

Autoignition Temperature

Explosion Limits

No information available

Upper No data available
Lower No data available
Sensitivity to Mechanical Impact No information available

Sensitivity to Static Discharge No information available

Specific Hazards Arising from the Chemical

Keep product and empty container away from heat and sources of ignition.

Hazardous Combustion Products

Nitrogen oxides (NOx) Carbon monoxide (CO) Carbon dioxide (CO₂) Silicon dioxide

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

NFPA

Storage

Health Flammability Instability Physical hazards
3 1 1 N/A

6. Accidental release measures

Personal Precautions Ensure adequate ventilation. Use personal protective equipment.

Environmental Precautions Do not flush into surface water or sanitary sewer system.

Methods for Containment and Clean Keep in suitable, closed containers for disposal. Soak up with inert absorbent material. **Up**

	7. Handling and storage
Handling	Ensure adequate ventilation. Wear personal protective equipment. Do not get in eyes, on
_	skin, or on clothing. Avoid ingestion and inhalation.

tightly closed in a dry, cool and well-ventilated place.

Protect from moisture. Corrosives area. Store under an inert atmosphere. Keep containers

8. Exposure controls / personal protection

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure

limitsestablished by the region specific regulatory bodies.

Engineering Measures Ensure adequate ventilation, especially in confined areas. Ensure that eyewash stations

and safety showers are close to the workstation location.

Personal Protective Equipment

Eye/face Protection Wear appropriate protective eyeglasses or chemical safety goggles as described by

OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard

EN166.

Skin and body protection Long sleeved clothing.

Respiratory Protection Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard

EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

Hygiene Measures Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Physical State Liquid Appearance Yellow

Odor No information available
Odor Threshold No information available
pH No information available

Melting Point/Range No data available

Boiling Point/Range 114 - 118 °C / 237.2 - 244.4 °F @ 2 mmHg

Flash Point 137 °C / 278.6 °F Evaporation Rate No information available

Flammability (solid,gas)

Not applicable

Flammability or explosive limits

UpperNo data availableLowerNo data availableVapor Pressure<0.1 hPa (20°C)</th>

Vapor Density No information available

Specific Gravity 1.031

Solubility Immiscible with water
Partition coefficient; n-octanol/water No data available
Autoignition Temperature No information available
Decomposition Temperature No information available
Viscosity No information available

Molecular Formula C10 H27 N3 O3 Si

Molecular Weight 265.43

10. Stability and reactivity

Reactive Hazard None known, based on information available

Stability Moisture sensitive.

Conditions to Avoid Protect from water. Incompatible products. Exposure to moist air or water.

Incompatible Materials Acids, Water, Bases

Hazardous Decomposition Products Nitrogen oxides (NOx), Carbon monoxide (CO), Carbon dioxide (CO2), Silicon dioxide

Hazardous Polymerization Hazardous polymerization does not occur.

Hazardous Reactions None under normal processing.

11. Toxicological information

Acute Toxicity

Product Information

3-[2-(2-Aminoethylamino)ethylamino]propyl-trimethox ysilane

Component Information

Toxicologically Synergistic

No information available

Products

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Irritation Risk of serious damage to eyes

Sensitization May cause sensitization by skin contact

Carcinogenicity The table below indicates whether each agency has listed any ingredient as a carcinogen.

Component	CAS-No	IARC	NTP	ACGIH	OSHA	Mexico
1,2-Ethanediamine, N-(2-aminoethyl)-N'-[3- (trimethoxysilyl)propyl]		Not listed				

Mutagenic Effects No information available

Reproductive Effects No information available.

Developmental Effects No information available.

No information available. **Teratogenicity**

STOT - single exposure None known STOT - repeated exposure None known

Aspiration hazard No information available

delayed

Symptoms / effects,both acute and Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting

Endocrine Disruptor Information No information available

Other Adverse Effects The toxicological properties have not been fully investigated.

12. Ecological information

Ecotoxicity

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. The product contains following substances which are hazardous for the environment.

Persistence and Degradability Immiscible with water

Bioaccumulation/ Accumulation No information available.

Will likely be mobile in the environment due to its water solubility. Is not likely mobile in the **Mobility**

environment due its low water solubility. Will likely be mobile in the environment due to its

volatility.

13. Disposal considerations

Chemical waste generators must determine whether a discarded chemical is classified as a **Waste Disposal Methods**

hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

14. Transport information

DOT

UN3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. Proper technical name 1,2-Ethanediamine, N-(2-aminoethyl)-N'-[3-(trimethoxysilyl)propyl]-

Hazard Class 9
Packing Group III

<u>TDG</u>

UN-No UN3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazard Class 9
Packing Group III

IATA

UN-No UN3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazard Class 9
Packing Group

IMDG/IMO

UN-No UN3082

Proper Shipping Name ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

Hazard Class 9
Packing Group III

15. Regulatory information

All of the components in the product are on the following Inventory lists: X = listed

International Inventories

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
1,2-Ethanediamine,	Χ	Х	-	252-390-9	-		Х	-	Х	Х	Χ
N-(2-aminoethyl)-N'-[3-(trimet											
hoxysilyl)propyl]-											

Legend:

- X Listed
- E Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.
- F Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.
- N Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.
- P Indicates a commenced PMN substance
- R Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.
- S Indicates a substance that is identified in a proposed or final Significant New Use Rule
- T Indicates a substance that is the subject of a Section 4 test rule under TSCA.
- XU Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B).
- Y1 Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.
- Y2 Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

U.S. Federal Regulations

TSCA 12(b) Not applicable

SARA 313 Not applicable

SARA 311/312 Hazard Categories See section 2 for more information

CWA (Clean Water Act)

Not applicable

Clean Air Act

Not applicable

3-[2-(2-Aminoethylamino)ethylamino]propyl-trimethox ysilane

OSHA Occupational Safety and Health Administration

Not applicable

CERCLA Not applicable

California Proposition 65 This product does not contain any Proposition 65 chemicals

U.S. State Right-to-Know

Not applicable

Regulations

U.S. Department of Transportation

Reportable Quantity (RQ): N
DOT Marine Pollutant N
DOT Severe Marine Pollutant N

U.S. Department of Homeland Security

This product does not contain any DHS chemicals.

Other International Regulations

Mexico - Grade No information available

16. Ot	her information	
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Prepared By Regulatory Affairs

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Revision Summary

This document has been updated to comply with the US OSHA HazCom 2012 Standard

replacing the current legislation under 29 CFR 1910.1200 to align with the Globally

Harmonized System of Classification and Labeling of Chemicals (GHS).

Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text

End of SDS