

3-(N,N-DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILANE

Safety Data Sheet SID3546.92
Date of issue: 01/05/2017 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product name : 3-(N,N-DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILANE

Product code : SID3546.92
Product form : Substance
Physical state : Liquid
Formula : C8H21NO3Si

Chemical family : ORGANOMETHOXYSILANE

1.2. Recommended use and restrictions on use

Recommended use : Chemical intermediate

1.3. Supplier

GELEST, INC.

11 East Steel Road Morrisville, PA 19067

USA

T 215-547-1015 - F 215-547-2484 - (M-F): 8:00 AM - 5:30 PM EST

info@gelest.com - www.gelest.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin corrosion/irritation Category 1C

Serious eye damage/eye irritation Category 1

Specific target organ toxicity (single exposure) Category 3

Full text of H statements : see section 16

H314 Causes severe skin burns and eye damage

H318 Causes serious eye damage

H335 May cause respiratory irritation

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)





Signal word (GHS US) : Danger

Hazard statements (GHS US) : H314 - Causes severe skin burns and eye damage

H318 - Causes serious eye damage H335 - May cause respiratory irritation

Precautionary statements (GHS US) : P280 - Wear protective gloves/protective clothing/eye protection/face protection.

P260 - Do not breathe vapors.

P264 - Wash hands thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area.

P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting

P303+P361+P353 - If on skin (or hair): take off immediately all contaminated clothing. rinse

skin with water/shower

P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a doctor

P321 - Specific treatment (see first aid instructions on this label)

P363 - Wash contaminated clothing before reuse.

P403+P233 - Store in a well-ventilated place. Keep container tightly closed.

P405 - Store locked up.

P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Hazards not otherwise classified (HNOC)

Other hazards not contributing to the classification

: Additional methanol may be formed by reaction with moisture and water. The US OSHA PEL (TWA) for methanol is 200 ppm.

Print date: 04/11/2019 EN (English US) SDS ID: **SID3546.92** Page 1

DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILA

Safety Data Sheet

Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

Substances

Substance type : Mono-constituent

: 3-(N,N-DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILANE Name

CAS-No. : 224638-27-1

Name	Product identifier	%	GHS-US classification
3-(N,N-Dimethylaminopropyl)aminopropylmethyldimethoxysilane	(CAS-No.) 224638-27-1	97 - 100	Skin Corr. 1C, H314 Eye Dam. 1, H318
			STOT SE 3, H335

Full text of hazard classes and H-statements : see section 16

32 Mixtures

Not applicable

SECTION 4: First-aid measures

Description of first aid measures

First-aid measures general Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not

available show packaging or label.

First-aid measures after inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel

unwell, seek medical advice.

First-aid measures after skin contact : Wash with plenty of soap and water. Get immediate medical advice/attention.

First-aid measures after eye contact : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if

present and easy to do. Continue rinsing. Get immediate medical advice/attention.

: Never give anything by mouth to an unconscious person. Get medical advice/attention. First-aid measures after ingestion

Most important symptoms and effects (acute and delayed)

Symptoms/effects : Causes severe skin burns and eye damage.

Symptoms/effects after inhalation May cause respiratory irritation. Symptoms/effects after skin contact Causes (severe) skin burns.

Symptoms/effects after eye contact Causes serious eye damage.

Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes Symptoms/effects after ingestion

nausea, vomiting, headache, visual effects including blindness.

: On contact with water this compound liberates methanol which is known to have a chronic Chronic symptoms

effect on the central nervous system.

Immediate medical attention and special treatment, if necessary

NOTE TO PHYSICIAN: This product reacts with water in the acid contents of the stomach to form methanol. The combination of visual disturbances, metabolic acidosis and formic acid in urine is evidence of methanol poisoning. The therapeutic intravenous administration of ethanol (10 mls/hour) allows methanol to be preferentially oxidized and reduces production of methanol metabolites. Acidosis must be treated with intravenous administration of sodium bicarbonate and methanol elimination may be increased by hemodialysis, as indicated. Treatment should be based on blood methanol levels and acid-base balance.

SECTION 5: Fire-fighting measures

Suitable (and unsuitable) extinguishing media

Suitable extinguishing media : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : Do not use straight streams.

Specific hazards arising from the chemical 5.2.

Fire hazard : Irritating fumes and organic acid vapors may develop when material is exposed to elevated

temperatures or open flame.

Special protective equipment and precautions for fire-fighters

Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.

: Do not enter fire area without proper protective equipment, including respiratory protection. Protection during firefighting

Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel

Protective equipment : Wear protective equipment as described in Section 8.

Print date: 04/11/2019 EN (English US) SDS ID: SID3546.92

DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILA

Safety Data Sheet

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with

proper protection. For further information refer to section 8: "Exposure controls/personal

protection".

Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

Methods and material for containment and cleaning up

For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or

Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.

Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapor and mist. Use only outdoors or in a

well-ventilated area.

Hygiene measures Wash contaminated clothing before reuse. Wash hands and other exposed areas with mild

soap and water before eating, drinking or smoking and when leaving work.

Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed. Store locked up.

Incompatible materials : Acids. Alcohols. Oxidizing agent. Peroxides. Moisture. Water. Storage area

: Store in a well-ventilated place. Store away from heat.

SECTION 8: Exposure controls/personal protection

Control parameters

No additional information available

Appropriate engineering controls

Appropriate engineering controls : Provide local exhaust or general room ventilation.

Individual protection measures/Personal protective equipment

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles or face shield. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified combination organic vapor - amine gas (brown cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid : Clear liquid. **Appearance** 284.44 g/mol Molecular mass Color : Colorless.

Print date: 04/11/2019 EN (English US) SDS ID: SID3546.92 3/7

DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILA NE

Safety Data Sheet

Odor : Amine. Ammonia-like.
Odor threshold : No data available
Refractive index : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available

Freezing point : < 0

Boiling point : 92 - 94 °C @ 0.7 mm Hg

Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available

Relative vapor density at 20 °C : > 1
Relative density : 0.915

Solubility : Reacts with water. Log Pow : No data available No data available Log Kow Viscosity, kinematic No data available Viscosity, dynamic : No data available : No data available Explosive properties : No data available Oxidizing properties **Explosion limits** : No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Stable in sealed containers stored at temperatures not exceeding 40°C.

10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating methanol.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Acids. Alcohols. Oxidizing agent. Peroxides. Moisture. Water.

10.6. Hazardous decomposition products

Methanol. Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified

None of the components in this product at concentrations >0.1% are listed by IARC, NTP,

OSHA or ACGIH as a carcinogen.

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause respiratory irritation.

Print date: 04/11/2019 EN (English US) SDS ID: **SID3546.92** 4/7

DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILA NE

Safety Data Sheet

Specific target organ toxicity - repeated

exposure

: Not classified

Aspiration hazard

: Not classified

Symptoms/effects after inhalation

: May cause respiratory irritation.

Symptoms/effects after skin contact
Symptoms/effects after eye contact

: Causes (severe) skin burns.: Causes serious eye damage.

Symptoms/effects after ingestion

: Oral toxicity is associated with methanol, the solvent and a hydrolysis product which causes

nausea, vomiting, headache, visual effects including blindness.

Chronic symptoms

On contact with water this compound liberates methanol which is known to have a chronic

effect on the central nervous system.

Reason for classification

: Expert judgment

SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Other adverse effects : This substance may be hazardous to the environment.

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Sewage disposal recommendations : Do not dispose of waste into sewer.

Product/Packaging disposal recommendations

: Dispose in a safe manner in accordance with local/national regulations. Dispose of

contents/container to licensed waste disposal facility.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No.(DOT) : 1760 DOT NA no. UN1760

14.2. UN proper shipping name

Transport document description : UN1760 Corrosive liquids, n.o.s. (3-(N,N-

DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILANE), 8, III

Proper Shipping Name (DOT) : Corrosive liquids, n.o.s.

(3-(N,N-DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILANE)

Class (DOT) : 8 - Class 8 - Corrosive material 49 CFR 173.136

Packing group (DOT) : III - Minor Danger Hazard labels (DOT) : 8 - Corrosive



DOT Packaging Non Bulk (49 CFR 173.xxx) : 203
DOT Packaging Bulk (49 CFR 173.xxx) : 241
DOT Packaging Exceptions (49 CFR 173.xxx) : 154

DOT Symbols : G - Identifies PSN requiring a technical name

Print date: 04/11/2019 EN (English US) SDS ID: SID3546.92 5/7

DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILA NF

Safety Data Sheet

14.3. Additional information

Emergency Response Guide (ERG) Number : 154

Other information : No supplementary information available.

Transport by sea

DOT Vessel Stowage Location : A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a

passenger vessel.

DOT Vessel Stowage Other : 40 - Stow "clear of living quarters"

Air transport

DOT Quantity Limitations Passenger aircraft/rail : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

3-(N,N-DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILANE (224638-27-1)

TSCA Exemption/Exclusion

CAUTION: This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States.

3-(N,N-Dimethylaminopropyl)aminopropylmethyldimethoxysilane (224638-27-1)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

SECTION 16: Other information

Full text of H-phrases::

H314	Causes severe skin burns and eye damage	
H318	Causes serious eye damage	
H335	May cause respiratory irritation	

Abbreviations and acronyms

: Abbreviations: ND: Not Determined, No Data; NA: Not Applicable; LD: Lethal Dose; LC: Lethal Concentration; ATE: Acute Toxicity Estimates; H: hour; °: °C unless otherwise stated; mm: millimeters Hg, torr; PEL: permissible exposure level; TWA: time weighted average; TLV: threshold limit value; TG: Test Guideline; NIOSH: National Institute for Occupational Safety and Health; IARC: International Agency for Research on Cancer; NTP: National Toxicology Program; HMIS: Hazardous Material Information System; CAS No.: Chemcial Abstract Service Registration Number; EC No.: European Commission Registration Number; EC Index No.: European Commission Index Number; OECD: The Organisation for Economic Co-operation and Development; GHS: The Globally Harmonized System of Classification and Labelling; APF: Assigned Protection Factor.

Print date: 04/11/2019 EN (English US) SDS ID: SID3546.92 6/7

3-(N,N-DIMETHYLAMINOPROPYL)AMINOPROPYLMETHYLDIMETHOXYSILA NE

Safety Data Sheet

Hazard Rating

Health

: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability

2 Moderate Hazard - Materials which must be moderately heated or exposed to high ambient temperatures before ignition will occur. Includes liquids having a flash point at or above 100 F but below 200 F. (Classes II & IIIA)

Physical

: 1 Slight Hazard - Materials that are normally stable but can become unstable (self-react) at high temperatures and pressures. Materials may react non-violently with water or undergo hazardous polymerization in the absence of inhibitors.

Prepared by safety and environmental affairs.

Date of issue: 01/05/2017 Version: 1.0

SDS US (GHS HazCom 2012) - Custom

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

The information contained in this document has been gathered from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. Such information is offered solely for your consideration, investigation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones which exist. Gelest, Inc. makes no warranties, express or implied, with respect to the use of such information and assumes no responsibility therefore. Information on this safety data sheet is not intended to constitute a basis for product specifications.

© 2019 Gelest Inc. Morrisville, PA 19067



Print date: 04/11/2019 EN (English US) SDS ID: **SID3546.92** 7/7