



A Group Company of MITSUBISHI CHEMICAL

**TETRAMETHYLAMMONIUM SILOXANOLATE**

Safety Data Sheet SIT7520.0

Issue date: 31/08/2015

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Version: 1.2

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Substance  
 Physical state : Liquid  
 Substance name : TETRAMETHYLAMMONIUM SILOXANOLATE  
 Product code : SIT7520.0  
 Synonyms : N-CAT  
 Chemical family : ORGANOSILOXANE

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.2.1. Relevant identified uses**

Use of the substance/mixture : Chemical intermediate

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet****GELEST, INC.**

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**1.4. Emergency telephone number**

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

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Acute toxicity (oral), Category 4	H302
Acute toxicity (dermal), Category 2	H310
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Specific target organ toxicity – Single exposure, Category 2	H371
Specific target organ toxicity – Repeated exposure, Category 2	H373
Hazardous to the aquatic environment – Chronic Hazard, Category 3	H412

Full text of H- and EUH-statements: see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H302 - Harmful if swallowed.  
H310 - Fatal in contact with skin.  
H314 - Causes severe skin burns and eye damage.  
H371 - May cause damage to organs.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements (CLP)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P260 - Do not breathe vapours.  
P264 - Wash hands thoroughly after handling.  
P270 - Do not eat, drink or smoke when using this product.  
P273 - Avoid release to the environment.  
P310 - Immediately call a POISON CENTER or doctor.

### 2.3. Other hazards

Contains no PBT/vPvB substances  $\geq 0.1\%$  assessed in accordance with REACH Annex XIII

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type

: Multi-constituent

Name

: TETRAMETHYLAMMONIUM SILOXANOLATE

CAS-No.

: 68440-88-0

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Tetramethylammonium siloxanolate	(CAS-No.) 68440-88-0	95 – 100	Skin Corr. 1C, H314 Eye Dam. 1, H318
Tetramethylammonium hydroxide	(CAS-No.) 75-59-2	1 – 5	Acute Tox. 2 (Oral), H300 Acute Tox. 1 (Dermal), H310 Skin Corr. 1B, H314 Eye Dam. 1, H318 STOT SE 1, H370 STOT RE 1, H372 Aquatic Chronic 2, H411

Full text of H-statements: see section 16

### 3.2. Mixtures

Not applicable

## SECTION 4: First aid measures

### 4.1. 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. IF exposed or concerned: Get medical advice/attention.

First-aid measures after inhalation

: Remove person to fresh air and keep comfortable for breathing. If you feel unwell, seek medical advice.

First-aid measures after skin contact

: Wash with plenty of 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.

First-aid measures after ingestion

: Never give anything by mouth to an unconscious person. Get medical advice/attention.

### 4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects

: Causes severe skin burns and eye damage. Causes damage to organs through prolonged or repeated exposure.

Symptoms/effects after inhalation

: May cause irritation to the respiratory tract. Inhalation will cause sneezing, irritation and burns.

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Symptoms/effects after skin contact	: Fatal in contact with skin. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Causes (severe) skin burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

### 4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. Dry chemical. Foam.
Unsuitable extinguishing media	: Do not use straight streams.

### 5.2. Special hazards arising from the substance or mixture

Fire hazard	: Combustible liquid. Irritating fumes and caustic vapors may develop when material is exposed to elevated temperatures or open flame.
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### 5.3. Advice for firefighters

Firefighting instructions	: Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Avoid all eye and skin contact and do not breathe vapour and mist.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Remove ignition sources. Use special care to avoid static electric charges.
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#### 6.1.1. For non-emergency personnel

Protective equipment	: Wear protective equipment as described in Section 8.
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".
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### 6.2. Environmental precautions

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

### 6.3. 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 streams.
Methods for cleaning up	: Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Precautions for safe handling	: Avoid all eye and skin contact and do not breathe vapour and mist. Ground/bond container and receiving equipment. Use only in well ventilated areas. Use only non-sparking tools.
Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	: Keep container tightly closed. Store under dry nitrogen or argon in sealed containers. Keep in a cool place. Store locked up.
Incompatible materials	: Acids. alcohols. Carbon dioxide. Esters. Halogens. Ketones. Moist air. Water.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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### Tetramethylammonium hydroxide (75-59-2)

Italy - Portugal - USA ACGIH	Remark (ACGIH)	OELs not established
USA OSHA	Remark (OSHA)	OELs not established

### 8.2. Exposure controls

#### Appropriate engineering controls:

Provide local exhaust or general room ventilation.

#### Personal protective equipment:

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
Appearance	: Colorless to amber viscous liquid to gummy solid.
Colour	: No data available
Odour	: Mild.
Odour threshold	: No data available
Refractive index	: 1.438
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: 10 – 40 °C
Freezing point	: No data available
Boiling point	: > 130 °C decomposes
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Combustible liquid
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 0.98
Solubility	: Insoluble in water. Reacts slowly with water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Partition coefficient n-octanol/water (Log Kow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

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### 10.2. Chemical stability

Stable under nitrogen or argon in sealed containers.

### 10.3. Possibility of hazardous reactions

Material decomposes slowly in contact with moist air and rapidly in contact with water.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Acids. alcohols. Carbon dioxide. Esters. Halogens. Ketones. Moist air. Water.

### 10.6. Hazardous decomposition products

Caustic organic vapors. Methanol. Octamethylcyclotetrasiloxane. Tetramethylammonium hydroxide. Trimethylamine.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed. Fatal in contact with skin.

TETRAMETHYLAMMONIUM SILOXANOLATE (68440-88-0)	
ATE CLP (oral)	680 mg/kg bodyweight
ATE CLP (dermal)	100 mg/kg bodyweight
Tetramethylammonium hydroxide (75-59-2)	
LD50 oral rat	34 – 50 mg/kg
LD50 dermal rat	112 mg/kg
ATE CLP (oral)	34 mg/kg bodyweight
ATE CLP (dermal)	5 mg/kg bodyweight

Skin corrosion/irritation	: Causes severe skin burns.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause damage to organs.
STOT-repeated exposure	: May cause damage to organs through prolonged or repeated exposure.
Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract. Inhalation will cause sneezing, irritation and burns.
Symptoms/effects after skin contact	: Fatal in contact with skin. Repeated exposure to this material can result in absorption through skin causing significant health hazard. Causes (severe) skin burns. If skin and air are dry, powder on skin may not cause irritation or burns. Worker will notice a slippery feeling on washing. However, if moisture is present, the powder can cause severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Reason for classification	: Expert judgment

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: Harmful to aquatic life with long lasting effects.
Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Harmful to aquatic life with long lasting effects.

### 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

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### 12.5. Results of PBT and vPvB assessment

No additional information available

### 12.6. Other adverse effects

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

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations : Do not dispose of waste into sewer.  
Product/Packaging disposal recommendations : Incinerate. 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

In accordance with ADR / IMDG / IATA / ADN / RID

### 14.1. UN number

UN-No. (ADR) : 3267  
UN-No. (IMDG) : 3267  
UN-No. (IATA) : 3267  
UN-No. (ADN) : 3267  
UN-No. (RID) : 3267

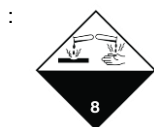
### 14.2. UN proper shipping name

Proper Shipping Name (ADR) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
Proper Shipping Name (IMDG) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
Proper Shipping Name (IATA) : Corrosive liquid, basic, organic, n.o.s.  
Proper Shipping Name (ADN) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
Proper Shipping Name (RID) : CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S.  
Transport document description (ADR) : UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TETRAMETHYLAMMONIUM SILOXANOLATE), 8, III, (E)  
Transport document description (IMDG) : UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TETRAMETHYLAMMONIUM SILOXANOLATE), 8, III  
Transport document description (IATA) : UN 3267 Corrosive liquid, basic, organic, n.o.s. (TETRAMETHYLAMMONIUM SILOXANOLATE), 8, III  
Transport document description (ADN) : UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TETRAMETHYLAMMONIUM SILOXANOLATE), 8, III  
Transport document description (RID) : UN 3267 CORROSIVE LIQUID, BASIC, ORGANIC, N.O.S. (TETRAMETHYLAMMONIUM SILOXANOLATE), 8, III

### 14.3. Transport hazard class(es)

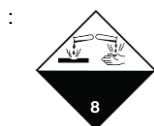
#### ADR

Transport hazard class(es) (ADR) : 8  
Danger labels (ADR) : 8



#### IMDG

Transport hazard class(es) (IMDG) : 8  
Danger labels (IMDG) : 8



#### IATA



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Transport hazard class(es) (IATA) : 8  
Danger labels (IATA) : 8



### ADN

Transport hazard class(es) (ADN) : 8  
Danger labels (ADN) : 8



### RID

Transport hazard class(es) (RID) : 8  
Danger labels (RID) : 8



#### 14.4. Packing group

Packing group (ADR) : III  
Packing group (IMDG) : III  
Packing group (IATA) : III  
Packing group (ADN) : III  
Packing group (RID) : III

#### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

#### 14.6. Special precautions for user

##### - Overland transport

Classification code (ADR) : C7  
Special provisions (ADR) : 274  
Limited quantities (ADR) : 5I  
Excepted quantities (ADR) : E1  
Packing instructions (ADR) : P001, IBC03, LP01, R001  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T7  
Portable tank and bulk container special provisions (ADR) : TP1, TP28  
Tank code (ADR) : L4BN  
Vehicle for tank carriage : AT  
Transport category (ADR) : 3  
Special provisions for carriage - Packages (ADR) : V12  
Hazard identification number (Kemler No.) : 80

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Orange plates



Tunnel restriction code (ADR)

: E

EAC code

: 2X

APP code

: B

### - Transport by sea

Special provisions (IMDG)

: 223, 274

Limited quantities (IMDG)

: 5 L

Excepted quantities (IMDG)

: E1

Packing instructions (IMDG)

: P001, LP01

IBC packing instructions (IMDG)

: IBC03

Tank instructions (IMDG)

: T7

Tank special provisions (IMDG)

: TP1, TP28

EmS-No. (Fire)

: F-A

EmS-No. (Spillage)

: S-B

Stowage category (IMDG)

: A

Stowage and handling (IMDG)

: SW2

Segregation (IMDG)

: SG35

Properties and observations (IMDG)

: Reacts violently with acids. Causes burns to skin, eyes and mucous membranes.

### - Air transport

PCA Excepted quantities (IATA)

: E1

PCA Limited quantities (IATA)

: Y841

PCA limited quantity max net quantity (IATA)

: 1L

PCA packing instructions (IATA)

: 852

PCA max net quantity (IATA)

: 5L

CAO packing instructions (IATA)

: 856

CAO max net quantity (IATA)

: 60L

Special provisions (IATA)

: A3

ERG code (IATA)

: 8L

### - Inland waterway transport

Classification code (ADN)

: C7

Special provisions (ADN)

: 274

Limited quantities (ADN)

: 5 L

Excepted quantities (ADN)

: E1

Carriage permitted (ADN)

: T

Equipment required (ADN)

: PP, EP

Number of blue cones/lights (ADN)

: 0

### - Rail transport

Classification code (RID)

: C7

Special provisions (RID)

: 274

Limited quantities (RID)

: 5L

Excepted quantities (RID)

: E1

Packing instructions (RID)

: P001, IBC03, LP01, R001

Mixed packing provisions (RID)

: MP19

Portable tank and bulk container instructions (RID)

: T7

Portable tank and bulk container special provisions (RID)

: TP1, TP28

Tank codes for RID tanks (RID)

: L4BN

Transport category (RID)

: 3

Special provisions for carriage – Packages (RID)

: W12

Colis express (express parcels) (RID)

: CE8

Hazard identification number (RID)

: 80



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### 14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

TETRAMETHYLAMMONIUM SILOXANOLATE is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

TETRAMETHYLAMMONIUM SILOXANOLATE is not on the REACH Candidate List

TETRAMETHYLAMMONIUM SILOXANOLATE is not on the REACH Annex XIV List

TETRAMETHYLAMMONIUM SILOXANOLATE is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

#### 15.1.2. National regulations

##### Germany

Regulatory reference : Not classified according to Regulation Governing Systems for Handling Substances Hazardous to Waters (AwSV)

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

##### Netherlands

SZW-lijst van kankerverwekkende stoffen : The substance is not listed

SZW-lijst van mutagene stoffen : The substance is not listed

SZW-lijst van reprotoxische stoffen – Borstvoeding : The substance is not listed

SZW-lijst van reprotoxische stoffen – Vruchtbaarheid : The substance is not listed

SZW-lijst van reprotoxische stoffen – Ontwikkeling : The substance is not listed

##### Denmark

Danish National Regulations : Young people below the age of 18 years are not allowed to use the product  
Pregnant/breastfeeding women working with the product must not be in direct contact with the product

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

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.: Chemical 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
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Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:

Acute Tox. 1 (Dermal)	Acute toxicity (dermal), Category 1
Acute Tox. 2 (Dermal)	Acute toxicity (dermal), Category 2
Acute Tox. 2 (Oral)	Acute toxicity (oral), Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment – Chronic Hazard, Category 2
Aquatic Chronic 3	Hazardous to the aquatic environment – Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H300	Fatal if swallowed.

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H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H370	Causes damage to organs.
H371	May cause damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Corr. 1C	Skin corrosion/irritation, Category 1, Sub-Category 1C
STOT RE 1	Specific target organ toxicity – Repeated exposure, Category 1
STOT RE 2	Specific target organ toxicity – Repeated exposure, Category 2
STOT SE 1	Specific target organ toxicity – single exposure, Category 1
STOT SE 2	Specific target organ toxicity – Single exposure, Category 2

SDS EU (REACH Annex II) - Custom

according to Regulation (EC) No. 1907/2006 (REACH) with its amendment Regulation (EU) 2015/830

*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.*

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