

**BIS(TRIMETHYLSILYL)PEROXIDE**

Safety Data Sheet SIB1868.0

Date of issue: 11/21/2014

Revision date: 09/17/2015

Version: 1.1

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

Product form	: Substance
Physical state	: Liquid
Substance name	: BIS(TRIMETHYLSILYL)PEROXIDE
Product code	: SIB1868.0
Formula	: C ₆ H ₁₈ O ₂ Si ₂
Synonyms	: HEXAMETHYLDISILPEROXANE; TRIMETHYLSILYLPEROXIDE; PEROXIDE CURING AGENT
Chemical family	: PEROXIDE

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

Use of the substance/mixture	: Chemical intermediate For research use only
------------------------------	--

1.3. Details of the supplier of the safety data sheet**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: Hazards identification**2.1. Classification of the substance or mixture****Classification (GHS-US)**

Org. Perox. C	H242
Skin Irrit. 2	H315
Eye Irrit. 2A	H319
STOT SE 3	H335

Full text of H-phrases: see section 16

2.2. Label elements**GHS-US labeling**

Hazard pictograms (GHS-US)



GHS02

GHS07

Signal word (GHS-US)

: Danger

Hazard statements (GHS-US)

: H242 - Heating may cause a fire
 H315 - Causes skin irritation
 H319 - Causes serious eye irritation
 H335 - May cause respiratory irritation

Precautionary statements (GHS-US)

: P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P210 - Keep away from heat, open flames, sparks. - No smoking
 P220 - Keep/Store away from flammable or combustible materials, metals, oxidizer
 P234 - Keep only in original container
 P261 - Avoid breathing vapors
 P264 - Wash hands thoroughly after handling
 P271 - Use only outdoors or in a well-ventilated area
 P302+P352 - If on skin: Wash with plenty of soap and water
 P332+P313 - If skin irritation occurs: Get medical advice/attention
 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
 P337+P313 - If eye irritation persists: Get medical advice/attention
 P312 - Call a doctor if you feel unwell
 P321 - Specific treatment (see first aid instructions on this label)

BIS(TRIMETHYLSILYL)PEROXIDE

Safety Data Sheet

P362+P364 - Take off contaminated clothing and wash it before reuse
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P410 - Protect from sunlight
P411+P235 - Store at temperatures not exceeding 10°C (50°F). Keep cool
P420 - Store away from other materials
P501 - Dispose of contents/container to licensed waste disposal facility.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Substance type : Mono-constituent
Name : BIS(TRIMETHYLSILYL)PEROXIDE
CAS No : 5796-98-5

Name	Product identifier	%	Classification (GHS-US)
Bis(trimethylsilyl)peroxide	(CAS No) 5796-98-5	95 - 100	Org. Perox. C, H242 Skin Irrit. 2, H315 Eye Irrit. 2A, H319 STOT SE 3, H335

3.2. Mixture

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 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 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 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/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after skin contact : Causes skin irritation.

Symptoms/injuries after eye contact : Causes serious eye irritation.

Symptoms/injuries after ingestion : May be harmful if swallowed.

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 : Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media : Water.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Heating may cause a fire. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Explosion hazard : Heat may build pressure, rupturing closed containers, spreading fire and increasing risk of burns and injuries.

5.3. Advice for firefighters

Firefighting instructions : Use water spray to cool exposed surfaces. 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 vapor and mist.

Other information : Detonations have been reported when material is transferred by metal hypodermic needles.

BIS(TRIMETHYLSILYL)PEROXIDE

Safety Data Sheet

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate ignition sources. Use special care to avoid static electric charges.

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".

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 : Cover spill with non combustible material, e.g.: sand, earth, vermiculite. Sweep or shovel spills into appropriate container for disposal.

6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Hazardous waste due to potential risk of explosion.

Precautions for safe handling : Avoid all eye and skin contact and do not breathe vapor and mist. Do not transfer through metal tubing or pipes. Transfer with plastic or glass recommended. Provide good ventilation in process area to prevent accumulation of vapors. Use only outdoors or in a well-ventilated area.

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

Technical measures : Proper grounding procedures to avoid static electricity should be followed.

Storage conditions : Store in sealed containers below 10°C (50°F). Keep container tightly closed. Keep only in original container. Protect from sunlight. Store locked up. Store away from other materials.

Incompatible materials : Flammable or combustible materials. Metals. Oxidizing agent.

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

Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

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

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. Contact lenses should not be worn.

Skin and body protection : Wear suitable protective clothing.

Respiratory protection : NIOSH-certified combination organic vapor/acid gas (yellow cartridge) respirator.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear liquid.

Molecular mass : 178.38 g/mol

Color : No data available

Odor : Slight.

BIS(TRIMETHYLSILYL)PEROXIDE

Safety Data Sheet

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	: > 135 °C (decomposes)
Freezing point	: No data available
Boiling point	: 35 °C @ 35 mm Hg
Flash point	: > 100 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: Self-accelerating decomposition temperature (SADT): - estimated 80°C (176°F)
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: > 1
Relative density	: 0.829
Solubility	: Insoluble in water. Reacts with water.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Heating may cause a fire.
Oxidizing properties	: No data available
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 below 10°C (50°F). Never allow temperature to exceed 50°C (122°F).

10.3. Possibility of hazardous reactions

Non-hazardous polymerization can occur at elevated temperature. Detonations have been reported during transfer with metal hypodermic needles.

10.4. Conditions to avoid

Heat. Open flame. Sparks.

10.5. Incompatible materials

Flammable or combustible materials. Metals. Oxidizing agent.

10.6. Hazardous decomposition products

Organic acid vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Causes skin irritation.
Symptoms/injuries after eye contact	: Causes serious eye irritation.

BIS(TRIMETHYLSILYL)PEROXIDE

Safety Data Sheet

Symptoms/injuries after ingestion	: May be harmful if swallowed.
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 ozone layer	: No additional information available
Effect on the global warming	: No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste disposal recommendations	: May be incinerated. Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Additional information	: Hazardous waste due to potential risk of explosion.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No.(DOT)	: 3103
DOT NA no.	UN3103

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Organic peroxide type C, liquid (BIS(TRIMETHYLSILYL)PEROXIDE)
Department of Transportation (DOT) Hazard Classes	: 5.2 - Class 5.2 - Organic Peroxide 49 CFR 173.128
Hazard labels (DOT)	: 5.2 - Organic peroxide



DOT Symbols	: G - Identifies PSN requiring a technical name
Packing group (DOT)	: II - Medium Danger
DOT Packaging Exceptions (49 CFR 173.xxx)	: 152
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 225
DOT Packaging Bulk (49 CFR 173.xxx)	: None

14.3. Additional information

Other information	: No supplementary information available.
-------------------	---

Transport by sea

DOT Vessel Stowage Location	: D - The material must be stowed "on deck only" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers or one passenger per each 3 m of overall vessel length, but the material is prohibited on passenger vessels in which the limiting number of passengers is exceeded.
DOT Vessel Stowage Other	: 12 - Keep as cool as reasonably practicable, 40 - Stow "clear of living quarters", 52 - Stow "separated from" acids, 53 - Stow "separated from" alkaline compounds

Air transport

DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L
--	-------

BIS(TRIMETHYLSILYL)PEROXIDE

Safety Data Sheet

DOT Quantity Limitations Cargo aircraft only (49 : 10 L
CFR 175.75)

SECTION 15: Regulatory information

15.1. US Federal regulations

BIS(TRIMETHYLSILYL)PEROXIDE (5796-98-5)

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.

Bis(trimethylsilyl)peroxide (5796-98-5)

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

15.2. International regulations

Bis(trimethylsilyl)peroxide (5796-98-5)

Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)

15.3. US State regulations

BIS(TRIMETHYLSILYL)PEROXIDE(5796-98-5)

U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

Bis(trimethylsilyl)peroxide (5796-98-5)

U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
No	No	No	No	

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.

Full text of H-phrases::

Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Org. Perox. C	Organic Peroxide Category C
Skin Irrit. 2	Skin corrosion/irritation Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H242	Heating may cause a fire
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability : 3 Serious Hazard
Physical : 2 Moderate Hazard

BIS(TRIMETHYLSILYL)PEROXIDE

Safety Data Sheet

Prepared by safety and environmental affairs.

Date of issue: 11/21/2014

Revision date: 09/17/2015

Version: 1.1

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.

© 2015 Gelest Inc. Morrisville, PA 19067

