

Safety Data Sheet SIB1907.8 Date of issue: 08/05/2016 Version: 1.0

<b>SECTION 1: Identification of the su</b>	ubstance/mixture and of the company/undertaking
1.1. Product identifier	
Product form	: Substance
Physical state	: Liquid
Substance name	: 11-BROMOUNDECYLSILANE
Product code	: SIB1907.8
Formula	: C11H25BrSi
Synonyms	: 1-SILA-12-BROMODODECANE
Chemical family	: ORGANOHYDRIDOSILANE
1.2. Relevant identified uses of the su	Ibstance 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 safe	ty data sheet
<b>GELEST, INC.</b> 11 East Steel Road Morrisville, PA 19067 <b>USA</b> T 215-547-1015 - F 215-547-2484 - (M-F): 8:0 info@gelest.com - www.gelest.com	00 AM - 5:30 PM EST
1.4. Emergency telephone number	
Emergency number	: CHEMTREC: 1-800-424-9300 (USA); +1 703-527-3887 (International)
<b>SECTION 2: Hazards identification</b>	
2.1. Classification of the substance of	
GHS-US classification	
Flam. Liq. 4 H227 Eye Irrit. 2A H319	
Full text of H statements : see section 16	
2.2. Label elements	
GHS-US labeling	
Hazard pictograms (GHS-US)	GHS07
Signal word (GHS-US)	: Warning
Hazard statements (GHS-US)	: H227 - Combustible liquid H319 - Causes serious eye irritation
Precautionary statements (GHS-US)	<ul> <li>P280 - Wear protective gloves/protective clothing/eye protection/face protection P210 - Keep away from heat, open flames, sparks No smoking P264 - Wash soap and water thoroughly after handling 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 P370+P378 - In case of fire: Use water spray or fog, foam, carbon dioxide, dry chemical to extinguish P403+P235 - Keep in a cool place P501 - Dispose of contents/container to licensed waste disposal facility</li> </ul>
2.3. Other hazards	
No additional information available	
2.4 Unknown coute toxicity (CHC UC)	

2.4. Unknown acute toxicity (GHS US)

No data available

Safety Data Sheet

3.1.       Substance         Substance type       : Mono-constituent         Name       : 11-BROMOUNDECYLSILANE         CAS No       : 469904-33-4         Mame       (CAS No) 469904-33-4         95 -       Flam. Liq. 4, H227         11-Bromoundecylsilane       (CAS No) 469904-33-4         95 -       Flam. Liq. 4, H227         100       Eye Irrit. 2A, H319         3.2.       Mixture         Not applicable       SECTION 4: 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 no available show packaging or label.	SECTION 3: Composition/Informa	ation on ingredients		
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Name : 11-BRCMCUNDECYLSILANE CAS No : 469004-33-4 Name : for Advancement of the Advancement of	Substance type	: Mono-constituent		
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First-aid measures after inhalation       : Remove vicim to fresh air and keep at rest in a position comfortable for breathing. If you feel unveil, seek medical advice.         First-aid measures after skin contact       : Wash with plenty of soap and water. Get medical advice/attention.         First-aid measures after inpestion       : Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses present and easy to do. Continue insing. Get medical advice/attention. <b>4.2. Most important symptoms and effects, both acute and delayed</b> Symptoms/injuries after insigestion       : May cause skin infration.         Symptoms/injuries after skin contact       : May cause skin infration.         Symptoms/injuries after insigestion       : No information available. <b>4.3. Indication of any immediate medical attention and special treatment needed</b> No additional information available. <b>5.1. Extinguishing media</b> : Do not use straight streams. <b>5.2. Special hazards arising from the substance or mixture</b> Fireflighting instructions       : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed to elevated temperatures or open flame. <b>5.3. Advice for firefighters</b> : 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. <b>5.1. Extring thing instructions</b> : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling		: Remove contaminated clothing and shoes. medical advice immediately (show the label		
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No additional information available SECTION 5: Firefighting measures 5.1. Extinguishing media Suitable extinguishing media : Water spray. Water fog. Foam. Carbon dioxide. Dry chemical. 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 organic acid vapors may develop when material is exposed to elevated temperatures or open flame. 5.3. Advice for firefighters Firefighting instructions : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers. Frofeighting : 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. 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. 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 severs and public waters. Notify authorities fi liquid enters severs 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 severs or	4.3. Indication of any immediate med	lical attention and special treatment needed		
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Fire hazard       : Combustible liquid. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.         5.3.       Advice for firefighters         Firefighting instructions       : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.         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.         SECTION 6: Accidental release measures       : Remove ignition sources. Use special care to avoid static electric charges.         6.1.       Personal precautions, protective equipment and emergency procedures         General measures       : Remove 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. <td< td=""><td>Unsuitable extinguishing media</td><td>: Do not use straight streams.</td><td></td><td></td></td<>	Unsuitable extinguishing media	: Do not use straight streams.		
5.3. Advice for firefighters         5.3. Advice for firefighters         Firefighting instructions       : Exercise caution when fighting any chemical fire. Use water spray or fog for cooling exposed containers.         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.         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.         6.1.1. For non-emergency personnel       Protective equipment         Protective equipment       : Wear protective equipment as described in Section 8.         Emergency procedures       : Evacuate unnecessary personnel.         6.1.2. For emergency responders       Protection. For further information refer to section 8. "Exposure controls/personal protection. For further information refer to section 8. "Exposure controls/personal protection".         6.2. Environmental precautions       : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection".         6.3. Methods and material for containment and cleaning up       : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or	5.2. Special hazards arising from the	substance or mixture		
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Protection during firefighting       containers.         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.         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.         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	•	· Exercise caution when fighting on chemics	l fire Llee water	spray or fog for cooling ovposed
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For containment : Contain any spills with dikes or absorbents to prevent migration and entry into sewers or	Prevent entry to sewers and public waters. N	lotify authorities if liquid enters sewers or public wat	ers.	
	6.3. Methods and material for contain	nment and cleaning up		
	For containment		to prevent migra	tion and entry into sewers or

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Methods for cleaning up

methods for cleaning up	shovel spills into appropriate container for disposal. Use only non-sparking tools.	
6.4. Reference to other sections		
See Heading 8. Exposure controls and person	al protection.	
SECTION 7: Handling and storage		
7.1. Precautions for safe handling		
Additional hazards when processed	: Keep away from heat/sparks/open flames/hot surfaces No smoking.	
Precautions for safe handling	<ul> <li>Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent accumulation of vapors. Use only non-sparking tools.</li> </ul>	
Hygiene measures	<ul> <li>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.</li> </ul>	
7.2. Conditions for safe storage, inclue	ding any incompatibilities	
Storage conditions	: Keep container tightly closed. Keep in a cool place.	
Incompatible materials	: Alkalis. Metal salts. Oxidizing agent. Precious metals.	
Storage area	: Store in a well-ventilated place. Store away from heat.	
7.3. Specific end use(s)		
No additional information available		
SECTION 8: Exposure controls/per	rsonal 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	: Emergency eye wash fountains and safety showers should be available in the immediate	
	vicinity of any potential exposure. Avoid all unnecessary 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	: Where exposure through inhalation may occur from use, respiratory protection equipment is	
	recommended. NIOSH-certified organic vapor (black cartridge) respirator.	
SECTION 9: Physical and chemical		
9.1. Information on basic physical and		
Physical state	: Liquid	
Appearance Malagular maga	: Clear liquid.	
Molecular mass Color	: 265.31 g/mol : No data available	
Odor Odor threshold	: Mild. : No data available	
	: No data available : No data available	
Refractive index		
pH	: No data available	
Relative evaporation rate (butyl acetate=1)	: No data available	
Melting point	: <0 °C	
Freezing point	: No data available	
Boiling point	: 100 - 102 °C @ 0.5 mm Hg	
Flash point	: > 65 °C	
Auto-ignition temperature	: No data available	
Decomposition temperature	: No data available	
Flammability (solid, gas)	: Combustible liquid	
Vapor pressure	: < 0.1 mm Hg @ 20°C	
Relative vapor density at 20 °C	: >1	
Relative density	: 1.02	
Solubility	: Insoluble in water.	
Log Pow	: No data available	
Log Kow		

: Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or

Viscosity, kinematic

Log Kow

: No data available

: No data available

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	EN (English US)	SDS ID: SIB1907.8 4/6
Effect on the global warming	: No known effects from this product.	
Effect on ozone layer	: No additional information available	
12.5. Other adverse effects		
No additional information available		
12.4. Mobility in soil		
No additional information available		
12.3. Bioaccumulative potential		
No additional information available		
12.2. Persistence and degradability		
No additional information available		
12.1. Toxicity		
SECTION 12: Ecological information	۱ <u> </u>	
Reason for classification	: Expert judgment	
Symptoms/injuries after ingestion	: No information available.	
Symptoms/injuries after eye contact	: Causes serious eye irritation.	
Symptoms/injuries after skin contact	: May cause skin irritation.	
Symptoms/injuries after inhalation	: May cause irritation to the respiratory	v tract.
Aspiration hazard	: Not classified	
Specific target organ toxicity (repeated exposure)	: Not classified	
Specific target organ toxicity (single exposure)	: Not classified	
Reproductive toxicity	: Not classified	
	OSHA or ACGIH as a carcinogen	
Carcinogenicity		uct at concentrations >0.1% are listed by IARC, NTP,
Germ cell mutagenicity	: Not classified	
Respiratory or skin sensitization	: Not classified : Not classified	
Serious eye damage/irritation	: Causes serious eye irritation.	
Skin corrosion/irritation	: Not classified	
Acute toxicity	: Not classified	
11.1. Information on toxicological effects		
SECTION 11: Toxicological information	tion	
Carbon monoxide. Formaldehyde. Hydrogen. O	rganic acid vapors. Silicon dioxide.	
10.6. Hazardous decomposition products	S	
Alkalis. Metal salts. Oxidizing agent. Precious m	netals.	
10.5. Incompatible materials		
Heat. Sparks. Open flame.		
10.4. Conditions to avoid		
metal salts such as aluminum chloride or precio		
	lrogen when exposed to alkalis and protic	materials such as water and alcohol in combination with
10.3. Possibility of hazardous reactions		
Stable in sealed containers under dry inert atmo	osphere.	
10.2. Chemical stability		
No additional information available		
10.1. Reactivity		
SECTION 10: Stability and reactivity		
No additional information available		
9.2. Other information		
Oxidizing properties Explosion limits	: No data available : No data available	
Explosive properties	: No data available	

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<b>SECTION 13: Disposal considerations</b>	S
13.1. Waste treatment methods	
Sewage disposal recommendations	: Do not dispose of waste into sewer.
Waste 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.
<b>SECTION 14: Transport information</b>	
14.1. UN number	
DOT NA no.	NA1993
14.2. UN proper shipping name	
Proper Shipping Name (DOT)	: Combustible liquid, n.o.s. (11-BROMOUNDECYLSILANE)
Class (DOT)	: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
DOT Symbols	: D - Proper shipping name for domestic use only, or to and from Canada,G - Identifies PSN requiring a technical name
Packing group (DOT)	: III - Minor Danger
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
14.3. Additional information	
Emergency Response Guide (ERG) Number	: 128
Other information	: No supplementary information available.
Special transport precautions	: This product is Combustible as defined by the US Department of Transportation (DOT). It is regulated for transport in the US in container > 119 gallons. The product is not regulated for transport by the IATA, ADR/RID, ADNR or the IMDG regulations.
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
Air transport	
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 220 L
<b>SECTION 15: Regulatory information</b>	
15.1. US Federal regulations	
11-BROMOUNDECYLSILANE (469904-33-4)	
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
11-Bromoundecylsilane (469904-33-4)	

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

15.2. International regulations

No additional information available

#### 15.3. US State regulations

11-BROMOUNDECYLSILANE(469904-33-4)	
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

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11-Bromoundecylsilane (46	69904-33-4)			
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	Non-significant 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.: Chemcial Abstract Service Registration Number; EC No.: European Commission Registration for Economic Co-operation and Development.
Full text of H-phrases::	
H227	Combustible liquid
H319	Causes serious eye irritation
HMIS III Rating Health Flammability Physical	<ul> <li>2 Moderate Hazard - Temporary or minor injury may occur</li> <li>2 Moderate Hazard</li> <li>1 Slight Hazard</li> </ul>
Prepared by safety and environmental affairs.	
Date of issue: 08/05/2016 Version: 1.0	
SDS US (GHS HazCom 2012) - Custom	
According to Federal Register / Vol. 77, No. 58 / Mono	ay, March 26, 2012 / Rules and Regulations
	from reference materials and/or Gelest, Inc. test data and is to the best knowledge and belief of Gelest, Inc. accurate and reliable. igation and verification. It is not suggested or guaranteed that the hazard precautions or procedures described are the only ones wh

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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