

# n-BUTYLDIMETHYLCHLOROSILANE

## Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878  
 Issue date: 11/25/2014 Revision date: 1/22/2024 Version: 2.2

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Product form	: Substance
Substance name	: n-BUTYLDIMETHYLCHLOROSILANE
EC-No.	: 423-700-1
CAS-No.	: 1000-50-6
Product code	: SIB1934.0
Formula	: C <sub>6</sub> H <sub>15</sub> ClSi
Synonyms	: BUTYLCHLORODIMETHYLSILANE / BUTYLDIMETHYLSILYL CHLORIDE / CHLORODIMETHYL-n-BUTYLSILANE
Product group	: Trade product
Chemical family	: ORGANOCHLOROSILANE

#### 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.

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](mailto:info@gelest.com) - [www.gelest.com](http://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 according to Regulation (EC) No. 1272/2008 [CLP]

Flammable liquids, Category 3	H226
Acute toxicity (oral), Category 4	H302
Skin corrosion/irritation, Category 1, Sub-Category 1B	H314
Serious eye damage/eye irritation, Category 1	H318
Full text of H- and EUH-statements: see section 16	

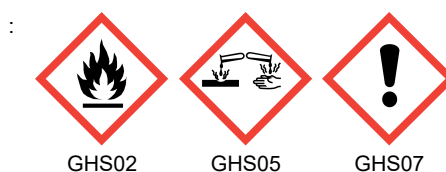
##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

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Hazard statements (CLP)	: H226 - Flammable liquid and vapour. H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage.
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P260 - Do not breathe vapours. P264 - Wash hands thoroughly after handling.

### 2.3. Other hazards

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

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Substance type	: Mono-constituent
Name	: n-BUTYLDIMETHYLCHLOROSILANE
CAS-No.	: 1000-50-6
EC-No.	: 423-700-1

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
n-Butyldimethylchlorosilane	CAS-No.: 1000-50-6 EC-No.: 423-700-1	95 – 100	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Corr. 1B, H314 Eye Dam. 1, H318

Full text of H- and EUH-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.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.
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 immediate medical advice/attention.

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

Symptoms/effects	: Causes severe skin burns and eye damage.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: Causes (severe) skin burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: May be harmful if swallowed.

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

No additional information available

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### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- |                                |  |
|--------------------------------|--|
| Suitable extinguishing media   | : Water spray. 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      | : Flammable liquid and vapour. Irritating fumes of hydrogen chloride and organic acid vapors may develop when material is exposed to water or open flame. |
| Explosion hazard | : May form flammable/explosive vapour-air mixture.  |

#### 5.3. Advice for firefighters

- |                                |  |
|--------------------------------|--|
| Firefighting instructions      | : Exercise caution when fighting any chemical fire. Use water spray to cool exposed surfaces.  |
| 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 | : 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 | : Clean up any spills as soon as possible, using an absorbent material to collect it. Use only non-sparking tools. |

#### 6.4. Reference to other sections

See Section 8. Exposure controls and personal protection.

### 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. Provide good ventilation in process area to prevent formation of vapour. Take precautionary measures against static discharge. Use only non-sparking tools. |
| 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.  |

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

- |                        |   |
|------------------------|---|
| Technical measures     | : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical equipment. |
| Storage conditions     | : Keep container tightly closed. Keep in a cool place. Store locked up.   |
| Incompatible materials | : Alkalis. Oxidizing agent.   |

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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/personal protection

### 8.1. Control parameters

#### 8.1.1 National occupational exposure and biological limit values

No additional information available

#### 8.1.2. Recommended monitoring procedures

No additional information available

#### 8.1.3. Air contaminants formed

No additional information available

#### 8.1.4. DNEL and PNEC

No additional information available

#### 8.1.5. Control banding

No additional information available

### 8.2. Exposure controls

#### 8.2.1. Appropriate engineering controls

##### Appropriate engineering controls:

Provide local exhaust or general room ventilation.

#### 8.2.2. Personal protection 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.

##### 8.2.2.1. Eye and face protection

###### Eye protection:

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

##### 8.2.2.2. Skin protection

###### Skin and body protection:

Wear suitable protective clothing

###### Hand protection:

Neoprene or nitrile rubber gloves

##### 8.2.2.3. Respiratory protection

###### Respiratory protection:

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

##### 8.2.2.4. Thermal hazards

No additional information available

#### 8.2.3. Environmental exposure controls

No additional information available

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Not available
Appearance	: Clear liquid.
Molecular mass	: 150.72 g/mol

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Odour	: Acrid. Similar to hydrogen chloride.
Odour threshold	: Not available
Melting point	: < 0 °C
Freezing point	: Not available
Boiling point	: 138 °C
Flammability	: Flammable liquid and vapour.
Explosive limits	: Not available
Lower explosion limit	: Not available
Upper explosion limit	: Not available
Flash point	: 39 °C
Auto-ignition temperature	: Not available
Decomposition temperature	: Not available
pH	: Not available
Viscosity, kinematic	: Not available
Solubility	: Insoluble in water. Reacts with water.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50°C	: Not available
Density	: Not available
Relative density	: 0.8751
Relative vapour density at 20°C	: > 1
Particle characteristics	: Not applicable

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

No additional information available

#### 9.2.2. Other safety characteristics

VOC content	: > 95 %
Refractive index	: 1.4205

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable in sealed containers stored under a dry inert atmosphere.

### 10.3. Possibility of hazardous reactions

Reacts with water and moisture in air, liberating hydrogen chloride.

### 10.4. Conditions to avoid

Heat. Open flame. Sparks.

### 10.5. Incompatible materials

Alkalis. Oxidizing agent.

### 10.6. Hazardous decomposition products

Carbon monoxide. Formaldehyde. Hydrogen chloride. Organic acid vapors. Silicon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Harmful if swallowed.
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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### n-Butyldimethylchlorosilane (1000-50-6)

LD50 oral rat	< 2000 mg/kg bodyweight Animal: rat, Guideline: other:
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	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

### 11.2. Information on other hazards

No additional information available

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

### n-Butyldimethylchlorosilane (1000-50-6)

LC50 - Fish [1]	> 30 mg/l Test organisms (species): Cyprinus carpio
EC50 - Other aquatic organisms [1]	> 72 mg/l Test organisms (species): other aquatic crustacea:
EC50 72h - Algae [1]	8.9 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)
EC50 72h - Algae [2]	10 mg/l Test organisms (species): Desmodesmus subspicatus (previous name: Scenedesmus subspicatus)

### 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. Results of PBT and vPvB assessment

No additional information available

### 12.6. Endocrine disrupting properties

No additional information available

### 12.7. Other adverse effects

Other adverse effects	: This substance may be hazardous to the environment.
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## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Sewage disposal recommendations	: Do not dispose of waste into sewer.
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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..
Additional information	: Handle empty containers with care because residual vapours are flammable.
Ecological information	: Avoid release to the environment.

### SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
<b>14.1. UN number or ID number</b>				
UN 2986	UN 2986	UN 2986	UN 2986	UN 2986
<b>14.2. UN proper shipping name</b>				
CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.	Chlorosilanes, corrosive, flammable, n.o.s.	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.	CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S.
<b>Transport document description</b>				
UN 2986 CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S., 8 (3), II, (D/E)	UN 2986 CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S., 8 (3), II	UN 2986 Chlorosilanes, corrosive, flammable, n.o.s., 8 (3), II	UN 2986 CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S., 8 (3), II	UN 2986 CHLOROSILANES, CORROSIVE, FLAMMABLE, N.O.S., 8 (3), II
<b>14.3. Transport hazard class(es)</b>				
8 (3)	8 (3)	8 (3)	8 (3)	8 (3)
				
<b>14.4. Packing group</b>				
II	II	II	II	II
<b>14.5. Environmental hazards</b>				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

### 14.6. Special precautions for user

#### Overland transport

Classification code (ADR)	: CF1
Special provisions (ADR)	: 548
Limited quantities (ADR)	: 0
Excepted quantities (ADR)	: E0
Packing instructions (ADR)	: P010
Mixed packing provisions (ADR)	: MP15
Portable tank and bulk container instructions (ADR)	: T14
Portable tank and bulk container special provisions (ADR)	: TP2, TP7, TP27
Tank code (ADR)	: L4BN
Vehicle for tank carriage	: FL
Transport category (ADR)	: 2
Special provisions for carriage - Operation (ADR)	: S2
Hazard identification number (Kemler No.)	: X83

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Orange plates

:



Tunnel restriction code (ADR)

:

D/E

### Transport by sea

Limited quantities (IMDG)	: 0
Excepted quantities (IMDG)	: E0
Packing instructions (IMDG)	: P010
Tank instructions (IMDG)	: T14
Tank special provisions (IMDG)	: TP2, TP7, TP13, TP27
EmS-No. (Fire)	: F-E
EmS-No. (Spillage)	: S-C
Stowage category (IMDG)	: C
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Colourless, flammable liquids with a pungent odour. Immiscible with water. React violently with water or steam, evolving hydrogen chloride, an irritating and corrosive gas apparent as white fumes. When involved in a fire, evolve toxic gas. In the presence of moisture, highly corrosive to most metals. Cause burns to skin, eyes and mucous membranes.

### Air transport

PCA Excepted quantities (IATA)	: E0
PCA Limited quantities (IATA)	: Forbidden
PCA limited quantity max net quantity (IATA)	: Forbidden
PCA packing instructions (IATA)	: Forbidden
PCA max net quantity (IATA)	: Forbidden
CAO packing instructions (IATA)	: 876
CAO max net quantity (IATA)	: 30L
Special provisions (IATA)	: A1
ERG code (IATA)	: 8F

### Inland waterway transport

Classification code (ADN)	: CF1
Special provisions (ADN)	: 548
Limited quantities (ADN)	: 0
Excepted quantities (ADN)	: E0
Equipment required (ADN)	: PP, EP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

### Rail transport

Classification code (RID)	: CF1
Special provisions (RID)	: 548
Limited quantities (RID)	: 0
Excepted quantities (RID)	: E0
Packing instructions (RID)	: P010
Mixed packing provisions (RID)	: MP15
Portable tank and bulk container instructions (RID)	: T14
Portable tank and bulk container special provisions (RID)	: TP2, TP7, TP27
Tank codes for RID tanks (RID)	: L4BN
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE6
Hazard identification number (RID)	: X83

### 14.7. Maritime transport in bulk according to IMO instruments

Not applicable



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### SECTION 15: Regulatory information

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

##### 15.1.1. EU-Regulations

###### REACH Annex XVII (Restriction List)

###### EU restriction list (REACH Annex XVII)

Reference code	Applicable on	Entry title or description
3(a)	n-BUTYLDIMETHYLCHLOROSILANE ; n-Butyldimethylchlorosilane	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 2.1 to 2.4, 2.6 and 2.7, 2.8 types A and B, 2.9, 2.10, 2.12, 2.13 categories 1 and 2, 2.14 categories 1 and 2, 2.15 types A to F
3(b)	n-BUTYLDIMETHYLCHLOROSILANE ; n-Butyldimethylchlorosilane	Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008: Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10
40.	n-BUTYLDIMETHYLCHLOROSILANE ; n-Butyldimethylchlorosilane	Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

###### REACH Annex XIV (Authorisation List)

Not listed on REACH Annex XIV (Authorisation List)

###### REACH Candidate List (SVHC)

Not listed on the REACH Candidate List

###### PIC Regulation (Prior Informed Consent)

Not listed on the PIC list (Regulation EU 649/2012)

###### POP Regulation (Persistent Organic Pollutants)

Not listed on the POP list (Regulation EU 2019/1021)

###### Ozone Regulation (1005/2009)

Not listed on the Ozone Depletion list (Regulation EU 1005/2009)

###### VOC Directive (2004/42)

VOC content : > 95 %

###### Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

###### Drug Precursors Regulation (273/2004)

Contains no substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

##### 15.1.2. National regulations

No additional information available

#### 15.2. Chemical safety assessment

No additional information available

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### 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

Other information : Prepared by safety and environmental affairs.

Full text of H- and EUH-statements:	
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B

SDS EU (REACH Annex II) - Custom v22

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