

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 1 of 9

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

##### 1.1. Product identifier

Silverbead® Thermal Glue SG100X Wärmeleitkleber

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

###### Use of the substance/mixture

 Consumer uses, Professional uses  
 Heat transfer agent (Adhesives and sealants)

##### 1.3. Details of the supplier of the safety data sheet

Company name:	AKivent GmbH
Street:	Thalenhorststraße 18
Place:	D-28307 Bremen
Telephone:	+49 421 9899 9550
E-mail:	info@akivent.de
E-mail (Contact person):	msds@akivent.de
Internet:	www.akivent.de

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Regulation (EC) No 1272/2008

This mixture is not classified as hazardous in accordance with Regulation (EC) No 1272/2008.

##### 2.2. Label elements

###### Additional advice on labelling

Labelling according to Regulation (EC) No. 1272/2008 [CLP]: none

##### 2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### SECTION 3: Composition/information on ingredients

##### 3.2. Mixtures

###### Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
93925-42-9	Silicic acid (H4SiO4), tetraethyl ester, reaction products with bis(acetyloxy)dibutylstannane	< 1 %
	300-344-4	
	Flam. Liq. 3, Muta. 2, Repr. 1B, Acute Tox. 4, Acute Tox. 4, Eye Dam. 1, STOT SE 1, STOT RE 1, Aquatic Chronic 4; H226 H341 H360FD H332 H302 H318 H370 H372 H413	

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

###### Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
93925-42-9	300-344-4	Silicic acid (H4SiO4), tetraethyl ester, reaction products with bis(acetyloxy)dibutylstannane	< 1 %
		inhalation: ATE = 11 mg/l (vapours); inhalation: LC50 = 1,555 mg/l (dusts or mists); oral: LD50 = 1000 mg/kg	

#### SECTION 4: First aid measures

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 2 of 9

#### **4.1. Description of first aid measures**

##### **General information**

When in doubt or if symptoms are observed, get medical advice.

##### **After inhalation**

Provide fresh air. If experiencing respiratory symptoms: Call a doctor.

##### **After contact with skin**

Wash with plenty of water. Take off contaminated clothing and wash it before reuse. In case of skin reactions, consult a physician.

##### **After contact with eyes**

Rinse immediately carefully and thoroughly with eye-bath or water. Remove contact lenses, if present and easy to do. Continue rinsing. In case of troubles or persistent symptoms, consult an ophthalmologist.

##### **After ingestion**

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

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

No information available.

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

Treat symptomatically.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

Co-ordinate fire-fighting measures to the fire surroundings.

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

Non-flammable.

In case of fire may be liberated: Pyrolysis products, toxic

#### **5.3. Advice for firefighters**

Wear a self-contained breathing apparatus and chemical protective clothing. Full protection suit.

##### **Additional information**

Suppress gases/vapours/mists with water spray jet. Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

### **SECTION 6: Accidental release measures**

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

##### **General advice**

Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes. Evacuate area.

##### **For non-emergency personnel**

Provide adequate ventilation. Use personal protection equipment.

##### **For emergency responders**

Wear personal protection equipment (refer to section 8).

#### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

#### **6.3. Methods and material for containment and cleaning up**

##### **For containment**

Stop leak if safe to do so. Cover drains.

##### **For cleaning up**

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 3 of 9

#### Other information

Clean contaminated articles and floor according to the environmental legislation.

#### 6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

#### Advice on safe handling

Provide adequate ventilation. Do not breathe gas/fumes/vapour/spray. Avoid contact with skin, eyes and clothes.

Use personal protection equipment.

#### Advice on protection against fire and explosion

Usual measures for fire prevention.

#### Advice on general occupational hygiene

Remove contaminated, saturated clothing immediately. Wash hands before breaks and after work. When using do not eat, drink, smoke, sniff.

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

#### Requirements for storage rooms and vessels

Keep container tightly closed. Store in a well-ventilated place. Store in a dry place.

#### Hints on joint storage

Do not store together with: Oxidizing agents, strong. acid. alkali.

#### Further information on storage conditions

Keep away from heat. Protect from moisture.

### 7.3. Specific end use(s)

Heat transfer agent (Adhesives and sealants)

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Occupational exposure limits

CAS No	Substance	ppm	mg/m <sup>3</sup>	fib/cm <sup>3</sup>	Category	Origin
1344-28-1	Aluminium oxides, respirable dust	-	4		TWA (8 h)	
1344-28-1	Aluminium oxides, total inhalable dust	-	10		TWA (8 h)	
-	Silica, amorphous, respirable dust	-	2.4		TWA (8 h)	
-	Tin organic compounds (as Sn)	-	0.1		TWA (8 h)	
			0.2		STEL (15 min)	

### 8.2. Exposure controls



#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

#### Individual protection measures, such as personal protective equipment

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 4 of 9

#### Eye/face protection

Use eye protection according to EN 166.

#### Hand protection

Wear suitable gloves tested to EN374.

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

#### Skin protection

Wear suitable protective clothing.

#### Respiratory protection

In case of inadequate ventilation wear respiratory protection.

Respiratory protection necessary at: exceeding exposure limit values

#### Thermal hazards

No information available.

#### Environmental exposure controls

Avoid release to the environment.

## SECTION 9: Physical and chemical properties

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

Physical state:	Liquid (Paste)	
Colour:	white	
Odour:	characteristic	
Odour threshold:	not determined	
Melting point/freezing point:		not determined
Boiling point or initial boiling point and boiling range:		not determined
Flammability:		not determined
Lower explosion limits:		not determined
Upper explosion limits:		not determined
Flash point:		> 200 °C
Auto-ignition temperature:		not determined
Decomposition temperature:		> 200 °C
pH-Value:		not determined
Viscosity / kinematic:		not determined
Water solubility:		Immiscible
Solubility in other solvents		
not determined		
Partition coefficient n-octanol/water:		not determined
Vapour pressure:		not determined
Density:		1,25 g/cm <sup>3</sup>
Relative vapour density:		not determined
Particle characteristics:		not applicable

### 9.2. Other information

#### Information with regard to physical hazard classes

##### Explosive properties

The product is not: Explosive.

#### Further Information

No information available.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 5 of 9

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No hazardous reaction when handled and stored according to provisions.

### 10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

No known hazardous reactions.

### 10.4. Conditions to avoid

Keep away from heat. Protect from moisture.

### 10.5. Incompatible materials

Oxidizing agents, strong. acid. alkali.

### 10.6. Hazardous decomposition products

In case of fire may be liberated: Pyrolysis products, toxic

## SECTION 11: Toxicological information

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

#### Acute toxicity

Based on available data, the classification criteria are not met.

#### ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
93925-42-9	Silicic acid (H4SiO4), tetraethyl ester, reaction products with bis(acetyloxy)dibutylstannane				
	oral	LD50 1000 mg/kg	Rat	ECHA	OECD 423
	inhalation vapour	ATE 11 mg/l			
	inhalation (4 h) dust/mist	LC50 1,555 mg/l	Rat	ECHA	OECD 403

#### Irritation and corrosivity

Based on available data, the classification criteria are not met.

#### Sensitising effects

Based on available data, the classification criteria are not met.

#### Carcinogenic/mutagenic/toxic effects for reproduction

Based on available data, the classification criteria are not met.

#### STOT-single exposure

Based on available data, the classification criteria are not met.

#### STOT-repeated exposure

Based on available data, the classification criteria are not met.

#### Aspiration hazard

Based on available data, the classification criteria are not met.

#### Information on likely routes of exposure

oral, Skin contact, Eye contact, Inhalation.

### 11.2. Information on other hazards

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 6 of 9

#### Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to humans as no components meets the criteria.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Based on available data, the classification criteria are not met.  
The product is not: Ecotoxic.

#### 12.2. Persistence and degradability

The product has not been tested.

#### 12.3. Bioaccumulative potential

The product has not been tested.

#### 12.4. Mobility in soil

The product has not been tested.

#### 12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

#### 12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

#### 12.7. Other adverse effects

No information available.

#### Further information

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

##### Disposal recommendations

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

##### Contaminated packaging

Non-contaminated packages may be recycled. Handle contaminated packages in the same way as the substance itself.

### SECTION 14: Transport information

#### Land transport (ADR/RID)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

#### Inland waterways transport (ADN)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

#### Marine transport (IMDG)

<u>14.1. UN number or ID number:</u>	No dangerous good in sense of this transport regulation.
<u>14.2. UN proper shipping name:</u>	No dangerous good in sense of this transport regulation.
<u>14.3. Transport hazard class(es):</u>	No dangerous good in sense of this transport regulation.
<u>14.4. Packing group:</u>	No dangerous good in sense of this transport regulation.

## Safety Data Sheet

according to Regulation (EC) No 1907/2006

### Silverbead® Thermal Glue SG100X Wärmeleitkleber

Revision date: 15.06.2023

Page 7 of 9

#### Air transport (ICAO-TI/IATA-DGR)

<b>14.1. UN number or ID number:</b>	No dangerous good in sense of this transport regulation.
<b>14.2. UN proper shipping name:</b>	No dangerous good in sense of this transport regulation.
<b>14.3. Transport hazard class(es):</b>	No dangerous good in sense of this transport regulation.
<b>14.4. Packing group:</b>	No dangerous good in sense of this transport regulation.

#### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

#### 14.6. Special precautions for user

No information available.

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

not applicable

### SECTION 15: Regulatory information

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

##### EU regulatory information

Restrictions on use (REACH, annex XVII):

Entry 30

2010/75/EU (VOC): &lt; 6 %

Information according to 2012/18/EU (SEVESO III): Not subject to 2012/18/EU (SEVESO III)

##### National regulatory information

Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D): 1 - slightly hazardous to water

#### 15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

### SECTION 16: Other information

**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Silverbead® Thermal Glue SG100X Wärmeleitkleber**

Revision date: 15.06.2023

Page 8 of 9

**Abbreviations and acronyms**

CLP: Classification, labelling and Packaging  
REACH: Registration, Evaluation and Authorization of Chemicals  
GHS: Globally Harmonised System of Classification, Labelling and Packaging of Chemicals  
UN: United Nations  
CAS: Chemical Abstracts Service  
M-Factor: Multiplication Factor  
DNEL: Derived No Effect Level  
DMEL: Derived Minimal Effect Level  
PNEC: Predicted No Effect Concentration  
ATE: Acute toxicity estimate  
LC50: Lethal concentration, 50%  
LD50: Lethal dose, 50%  
LL50: Lethal loading, 50%  
EL50: Effect loading, 50%  
EC50: Effective Concentration 50%  
ErC50: Effective Concentration 50%, growth rate  
NOEC: No Observed Effect Concentration  
BCF: Bio-concentration factor  
PBT: persistent, bioaccumulative, toxic  
vPvB: very persistent, very bioaccumulative  
ADR: Accord européen sur le transport des marchandises dangereuses par Route  
(European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Regulations concerning the international carriage of dangerous goods by rail  
ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
(Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures)  
IMDG: International Maritime Code for Dangerous Goods  
EmS: Emergency Schedules  
MFAG: Medical First Aid Guide  
IATA: International Air Transport Association  
ICAO: International Civil Aviation Organization  
TI: Technical Instructions  
DGR: Dangerous Goods Regulations  
MARPOL: International Convention for the Prevention of Marine Pollution from Ships  
IBC: Intermediate Bulk Container  
VOC: Volatile Organic Compounds  
EG or EC: European Community  
IE: Industrial Emissions  
SVHC: Substance of Very High Concern  
For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).  
Flam. Liq: Flammable liquid  
Acute Tox: Acute toxicity  
Eye Dam: Eye damage  
Muta: Germ cell mutagenicity  
Repr: Reproductive toxicity  
STOT SE: Specific target organ toxicity - single exposure  
STOT RE: Specific target organ toxicity - repeated exposure  
Aquatic Chronic: Chronic aquatic hazard

**Key literature references and sources for data**

ECHA Registered Substances Factsheets (19.05.2023)  
<https://echa.europa.eu/de/information-on-chemicals/registered-substances>  
ECHA C&L Inventory Database (19.05.2023)  
<https://echa.europa.eu/de/information-on-chemicals/cl-inventory-database>



**Safety Data Sheet**

according to Regulation (EC) No 1907/2006

**Silverbead® Thermal Glue SG100X Wärmeleitkleber**

Revision date: 15.06.2023

Page 9 of 9

GESTIS Stoffdatenbank <https://gestis.dguv.de/search>**Relevant H and EUH statements (number and full text)**

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H318	Causes serious eye damage.
H332	Harmful if inhaled.
H341	Suspected of causing genetic defects.
H360FD	May damage fertility. May damage the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.
H413	May cause long lasting harmful effects to aquatic life.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*