

## 1. Product and company identification

### Product identifier

Trade name: SL-1 - ADP, SP II, GM, Footplates

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

General use: Reserved for industrial and professional use.  
For orthopedic procedures.  
Article: Carbon epoxy prepreg

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

Company name: Otto Bock Health Care  
Street/POB-No.: 3820 W. Great Lakes Drive  
Postal Code, city: Salt Lake City, UT 84120  
USA

WWW: [www.ottobockus.com](http://www.ottobockus.com)

Telephone: +1 (801) 956-2400

Telefax: +1 (801) 956-2401

Department responsible for information:

Quality Department,  
Telephone: +1 (801) 954-2304 (7 AM – 3 PM, Mountain Time),  
Email: [USRegulatory@ottobock.com](mailto:USRegulatory@ottobock.com)

Additional information: Corporate headquarters:  
Ottobock SE & Co. KGaA  
Max-Näder-Straße 15  
Duderstadt  
Germany

### Emergency phone number

**CHEMTREC, Telephone: +1 (800) 424-9300**

**Transport:**

**CONSULTANK Lutz Harder GmbH (Contract QUALI003)**

**Telephone: +49 (0)178-4337434 (from USA: 01149 178 4337434)**

## 2. Hazards identification

### Emergency overview

Appearance: Form: solid, resin impregnated material  
Color: black

Odor: nearly odorless

Classification: Article not subject to hazard labelling or classification.

### Regulatory status

This material is not considered hazardous by the U.S. OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Hazards not otherwise classified

Following information applies to the component bisphenol epoxy resins:  
 Irritating to eyes and respiratory system. May cause sensitization by skin contact.  
 Processing by heating can produce vapors.  
 Processing, e.g. by cutting, sawing or grinding, can produce particles and dust.  
 For risks which have to be observed thereby, see section 7: Handling, section 8:  
 Exposure controls / personal protection and section 11: Toxicology.  
 see section 11: Toxicological information

### 3. Composition / Information on ingredients

Chemical characterization: Article Formulated epoxy resin impregnated material with Carbon Fiber (PAN based)

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
	Formulated Epoxy Resin	25 - 40 %	Skin Irritation - Category 2. Eye Irritation - Category 2A. Sensitization - skin - Category 1. Aquatic toxicity - chronic - Category 2.

### 4. First aid measures

In case of inhalation: Provide fresh air. Seek medical treatment in case of troubles.

Following skin contact: After contact with skin, wash with soap and plenty of water.  
 Seek medical attention if irritation persists.

After eye contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult doctor afterwards.

After swallowing: Ingestion is not considered a possible route of exposure.  
 When dust and vapors form: Rinse mouth with water. Do not induce vomiting without medical assistance. Seek medical attention.

### Most important symptoms/effects, acute and delayed

Fibers and dust:  
 Skin irritation, mucous membrane irritation, eye irritations.

In case of inhalation:  
 When dust and vapors form: May cause sensitization by inhalation. Can irritate the mucous membrane.

In case of ingestion: In case of dust: Can damage your health.

Other symptoms: Abdominal pain, nausea, pain, vomiting.

After contact with skin: Irritant  
 May cause sensitization by skin contact.

After eye contact: Mild irritant.

### Information to physician

Treat symptomatically.

### 5. Fire fighting measures

Flash point/flash point range:

No data available

Auto-ignition temperature: not self-igniting

Suitable extinguishing media:

Water spray jet, dry chemical powder, foam, carbon dioxide

Extinguishing media which must not be used for safety reasons:

Full water jet

#### Specific hazards arising from the chemical

In case of fire may be liberated: Carbon monoxide and carbon dioxide. May form toxic materials.

Protective equipment and precautions for firefighters:

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

Additional information:

Cool endangered containers with water spray and, if possible, remove from danger zone. Use water spray jet to knock down vapors. Do not breathe fumes. Do not allow fire water to penetrate into surface or ground water. Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air.

### 6. Accidental release measures

Personal precautions:

Eliminate all ignition sources if safe to do so. Avoid generation of dust. Avoid contact with skin, eyes, and clothing. Wear appropriate protective equipment. Keep unprotected people away. Provide adequate ventilation.

Environmental precautions:

Do not allow to penetrate into soil, waterbodies or drains.

Methods for clean-up:

Take up mechanically, placing in appropriate containers for disposal. Final cleaning. Dispose of waste according to applicable legislation.

### 7. Handling and storage

#### Handling

Advices on safe handling:

Provide good ventilation in the work area. Avoid generation of dust. Avoid contact with skin, eyes, and clothing. Wear appropriate protective equipment. When using do not eat, drink or smoke.

Precautions against fire and explosion:

Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air. Take standard precautions to prevent fire.

#### Storage

Requirements for storerooms and containers:

Keep container tightly closed in a cool, well-ventilated place. Keep container dry. Keep at temperature not exceeding 37 °F = ca. 3°C °C.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.

## 8. Exposure controls / personal protection

### Exposure guidelines

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
65997-17-3	SL-1 - ADP, SP II, GM, Footplates	USA: ACGIH: TWA	10 mg/m <sup>3</sup> (Dust limit value, inhalable fraction)
		USA: ACGIH: TWA	3 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
		USA: OSHA: TWA	15 mg/m <sup>3</sup> (Dust limit value, total dust)
		USA: OSHA: TWA	5 mg/m <sup>3</sup> (Dust limit value, respirable fraction)
	Fiber (Carbon Fiber or Glass Fiber)	USA: ACGIH: TWA	1 fibers/cm <sup>3</sup> (Synthetic vitreous fibres, Continuous filament glass fibres)
		USA: ACGIH: TWA	5 mg/m <sup>3</sup> (Synthetic vitreous fibres, Continuous filament glass fibres, inhalable fraction)
		USA: NIOSH: TWA	3 fibers/cm <sup>3</sup>
		USA: NIOSH: TWA	5 mg/m <sup>3</sup> (glass wool, fiberglass, glass fibers)

### Engineering controls

Provide good ventilation and/or an exhaust system in the work area.

In case of warming (Processing): receptor hood for fumes/vapors.

See also information in chapter 7, section storage.

### Personal protection equipment (PPE)

Eye/face protection: Tightly sealed goggles according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2010.

Skin protection: Recommended: Wear suitable protective clothing.  
protective gloves according to OSHA Standard - 29 CFR: 1910.138.  
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection: In case of insufficient ventilation, wear suitable respiratory equipment.  
Respiratory protection is required when product is heated to 120°F = 48°C or above.  
At dust: Respiratory protection mask with filter for particulates

General hygiene considerations:  
Avoid contact with skin, eyes, and clothing. Wash hands before breaks and after work.  
When using do not eat, drink or smoke.  
In case of warming: Do not breathe vapors. Have eye wash bottle or eye rinse ready at work place.

### Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance:	Form: solid, resin impregnated material Color: black
Odor:	nearly odorless
Odor threshold:	No data available
pH:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Flammability:	No data available
Explosion limits:	LEL (Lower Explosion Limit): n.a. UEL (Upper Explosive Limit): n.a.
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Water solubility:	at 68 °F: insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	No data available
Explosive properties:	Product is not explosive.
Solvent content:	<= 2 %

## 10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions., but has reactivity.
Possibility of hazardous reactions:	No hazardous reactions known.
Conditions to avoid:	Keep away from heat.
Incompatible materials:	Avoid contact with strong acids, strong bases and oxidizing agents.
Hazardous decomposition products:	In case of fire may be liberated: Carbon monoxide and carbon dioxide. May form toxic materials.
Thermal decomposition:	No data available

## 11. Toxicological information

### Toxicological tests

Toxicological effects:

- Acute toxicity (oral): Lack of data.
- Acute toxicity (dermal): Lack of data.
- Acute toxicity (inhalative): Lack of data.
- Skin corrosion/irritation: Lack of data.
- Serious eye damage/irritation: Lack of data.
- Sensitisation to the respiratory tract: Lack of data.
- Skin sensitisation: Lack of data.
- Germ cell mutagenicity/Genotoxicity: Lack of data.
- Carcinogenicity: Lack of data.
- Reproductive toxicity: Lack of data.
- Effects on or via lactation: Lack of data.
- Specific target organ toxicity (single exposure): Lack of data.
- Specific target organ toxicity (repeated exposure): Lack of data.
- Aspiration hazard: Lack of data.

Other information:

- May cause sensitization by skin contact.
- For mechanical processing: dust formation.

### Symptoms

- Fibers and dust:
- Skin irritation, mucous membrane irritation, eye irritations.
- In case of inhalation:
- When dust and vapors form: May cause sensitization by inhalation. Can irritate the mucous membrane.
- In case of ingestion: In case of dust: Can damage your health.
- Other symptoms: Abdominal pain, nausea, pain, vomiting.
- After contact with skin: Irritant
- May cause sensitization by skin contact.
- After eye contact: Mild irritant.

## 12. Ecological information

### Ecotoxicity

Further details: No data available

### Mobility in soil

No data available

### Persistence and degradability

Further details: Product is partially biodegradable.

### Additional ecological information

General information: Do not allow to penetrate into soil, waterbodies or drains.

### 13. Disposal considerations

#### Product

Recommendation: Special waste. Dispose of waste according to applicable legislation.

#### Package

Recommendation: Dispose of waste according to applicable legislation.

### 14. Transport information

#### UN number

ADR/RID, IMDG, IATA-DGR:

not applicable

#### UN proper shipping name

ADR/RID, IMDG, IATA-DGR:

Not restricted

#### Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:

not applicable

#### Packing group

ADR/RID, IMDG, IATA-DGR:

not applicable

#### Environmental hazards

Marine pollutant:

no

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

#### USA: Department of Transportation (DOT)

Proper shipping name:

Not restricted

#### Sea transport (IMDG)

Proper shipping name::

Not restricted

Marine pollutant:

no

#### Air transport (IATA)

Proper shipping name::

Not restricted

#### Further information

No dangerous good in sense of these transport regulations.

### 15. Regulatory information

#### National regulations - U.S. Federal Regulations

This product is an article as defined by TSCA regulations, and is exempt from TSCA inventory listing requirements.

### National regulations - U.S. State Regulations

No data available

### National regulations - Great Britain

Hazchem-Code: -

## 16. Other information

Text for labeling:

Contains epoxy containing compounds: May produce an allergic reaction.  
See information supplied by the manufacturer.

Hazard rating systems:



NFPA Hazard Rating:

Health: 1 (Slight)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 1 (Slight)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

Abbreviations and acronyms:

ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways  
ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road  
Aquatic toxicity - chronic: Hazardous to the aquatic environment - chronic  
AS/NZS: Australian Standards/New Zealand Standards  
CAS: Chemical Abstracts Service  
CFR: Code of Federal Regulations  
CLP: Classification, Labelling and Packaging  
DMEL: Derived minimal effect level  
DNEL: Derived no-effect level  
EC: European Community  
EmS: Emergency Response Procedures for Ships Carrying Dangerous Goods  
EN: European Standard  
EQ: Excepted quantities  
Eye Irritation: Eye irritation  
IATA: International Air Transport Association  
IATA-DGR: International Air Transport Association – Dangerous Goods Regulations  
IBC Code: International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk  
IMDG Code: International Maritime Dangerous Goods Code  
IMO: International Maritime Organization  
LEL: Lower Explosion Limit  
MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships  
MFSU: Manufacture, formulation, supply and use  
OSHA: Occupational Safety and Health Administration  
PBT: Persistent, bioaccumulative and toxic  
PNEC: Predicted no-effect concentration  
RID: Regulations Concerning the International Carriage of Dangerous Goods by Rail  
Sensitization - skin: Skin sensitisation  
Skin Irritation: Skin irritation  
TRGS: Technical Rules for Hazardous Substances  
TSCA: Toxic Substance Control Act  
vPvB: Very persistent and very bioaccumulative

Reason of change:

Changes in section 8: Occupational exposure limit values

Date of first version:

2/3/2002

### Department issuing data sheet

Contact person:

see section 1: Department responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.