

1. Product and company identification

Product identifier

Trade name: 1Exx - Carbon/Epoxy Laminat

This safety data sheet pertains to the following products:

1E42, 1E43 - LuXon Max DP

1E50, 1E51 - Advantage DP2

1E61, 1E62, 1E63, 1E64, 1E65, - Springlite II

1E66 - Springlite II Pediatric Foot

1E80, 1E81, 1E82 - Chopart

1E90 - Sprinter Foot

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

General use: Article for orthopedic procedures

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

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

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

Color: black

Odor: 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

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: mixture with Carbon fibers, Epoxy resin - Laminate, Polyurethane (cured)

4. First aid measures

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

Following skin contact: In case of dust: Remove residues with soap and water. In case of skin irritation, consult a physician.

After eye contact: In case of dust: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. In case of troubles or persistent symptoms, consult an ophthalmologist.

After swallowing: Ingestion is not considered a possible route of exposure.
In case of dust: Rinse mouth with water. Seek medical treatment in case of troubles.

Most important symptoms/effects, acute and delayed

In case of inhalation:
For mechanical processing: dust formation. Can irritate the mucous membrane.
In case of ingestion: In case of dust: Can damage your health.

After eye contact:
In case of dust: Upon direct contact with eyes may cause burning, tearing, redness.

Information to physician

Treat symptomatically.

5. Fire fighting measures

Flash point/flash point range: No data available

Auto-ignition temperature: No data available

Suitable extinguishing media: Water spray jet, foam, dry chemical powder, 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: nitrogen oxides (NO_x), carbon monoxide and carbon dioxide.

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. For that reason, provide adequate installations to retain fire water. Disposal of contaminated water and earth must take place according to local regulations.

6. Accidental release measures

Personal precautions:

Avoid generation of dust.

In case of dust: Do not breathe dust. Wear appropriate protective equipment.

Environmental precautions:

Discharge into the environment must be avoided.

Methods for clean-up:

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

7. Handling and storage

Handling

Advices on safe handling:

For mechanical processing:

Provide adequate ventilation. Avoid generation of dust.

Wear appropriate protective equipment. The use of local exhaust ventilation is recommended. 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:

Store at room temperature. Keep away from heat.

Hints on joint storage:

Keep away from food, drink and animal feedingstuffs.

8. Exposure controls / personal protection

Exposure guidelines

Occupational exposure limit values:

Type	Limit value
USA: ACGIH: TWA	10 mg/m ³ (Dust limit value, inhalable fraction)
USA: ACGIH: TWA	3 mg/m ³ (Dust limit value, respirable fraction)
USA: OSHA: TWA	15 mg/m ³ (Dust limit value, total dust)
USA: OSHA: TWA	5 mg/m ³ (Dust limit value, respirable fraction)

Engineering controls

For mechanical processing:

Provide adequate ventilation. The use of local exhaust ventilation is recommended.

See also information in chapter 7, section storage.

Personal protection equipment (PPE)

Eye/face protection:

For mechanical processing:

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

Skin protection:

For mechanical processing: Wear suitable protective clothing.

For mechanical processing:

Protective gloves according to OSHA Standard - 29 CFR: 1910.138

Observe glove manufacturer's instructions concerning penetrability and breakthrough time.

Respiratory protection:

For mechanical processing:

Dust mask.

Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded.

OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2

General hygiene considerations:

Avoid generation of dust.

Wash hands before breaks and after work.

Environmental exposure controls

Refer to 6.: Section "Environmental precautions".

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: solid Color: black
Odor:	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:	No data available
Vapor pressure:	No data available
Vapor density:	No data available
Density:	No data available
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Auto-ignition temperature:	No data available
Thermal decomposition:	No data available
Additional information:	No data available

10. Stability and reactivity

Reactivity:	No data available.
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	No hazardous reaction when handled and stored according to provisions.
Conditions to avoid:	Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air. Keep away from heat. Avoid generation of dust.
Incompatible materials:	No data available
Hazardous decomposition products:	In case of fire may be liberated: nitrogen oxides (NO _x), carbon monoxide and carbon dioxide.
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.
Other information:	Aspiration hazard: Lack of data.
	For mechanical processing:
	Dust: mild irritant.
	Possible in traces: Formation of WHO-fibers. classification WHO-fibers: Causes concern for man owing to possible carcinogenic effects.

Symptoms

In case of inhalation:
 For mechanical processing: dust formation. Can irritate the mucous membrane.
 In case of ingestion: In case of dust: Can damage your health.
 After eye contact:
 In case of dust: Upon direct contact with eyes may cause burning, tearing, redness.

12. Ecological information

Ecotoxicity

Further details: No data available

Mobility in soil

No data available

Persistence and degradability

Further details: No data available

Additional ecological information

Volatile organic compounds (VOC):

0 % by weight

General information: Discharge into the environment must be avoided.

13. Disposal considerations

Product

Recommendation: Incinerate according to applicable local, state and federal regulations.

Package

Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

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

Hazard rating systems:



NFPA Hazard Rating:

Health: 0 (Minimal)

Fire: 1 (Slight)

Reactivity: 0 (Minimal)

HMIS Version III Rating:

Health: 0 (Minimal)

Flammability: 1 (Slight)

Physical Hazard: 0 (Minimal)

Personal Protection: X = Consult your supervisor

HEALTH	0
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
 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
 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
 MARPOL: Maritime Pollution: The International Convention for the Prevention of Pollution from Ships
 MFSU: Manufacture, formulation, supply and use
 OEL: Occupational Exposure Limit Value
 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
 TLV: Threshold Limit Value
 TRGS: Technical Rules for Hazardous Substances
 TSCA: Toxic Substance Control Act
 vPvB: Very persistent and very bioaccumulative
 WEL: Workplace Exposure Limit

Reason of change: General revision

Date of first version: 11/12/2008

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.