

1. Product and company identification

Product identifier

Trade name: 28U11 - Walk On AFO

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

General use: Reserved for industrial and professional 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: This material is classified as not hazardous.

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 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: Carbon fibers and Thermoplastic (PP)

Additional information: The maximum workplace exposure limits are, where necessary, listed in section 8.

4. First aid measures

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

Following skin contact: Dust: Remove residues with soap and water. Seek medical treatment in case of troubles.
If burned by hot product, quench immediately with cold tap water.
Do not peel solidified product off the skin. Immediately get medical attention.

After eye contact: 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: Dust: Repeatedly drink water. Seek medical treatment in case of troubles.

Most important symptoms/effects, acute and delayed

Carbon fibers (dust): mild irritant.

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: 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.

6. Accidental release measures

- Personal precautions: Handle in accordance with good industrial hygiene and safety practice.
For mechanical processing: Avoid generation of dust. Wear appropriate protective equipment. Keep unprotected people away. Provide fresh air.
- Environmental precautions: Discharge into the environment must be avoided.
- Methods for clean-up: Take up mechanically. Dispose of waste according to applicable legislation.

7. Handling and storage

Handling

- Advices on safe handling: Handle in accordance with good industrial hygiene and safety practice.
For mechanical processing:
Provide adequate ventilation. The use of local exhaust ventilation is recommended.
Avoid generation of dust. Wear appropriate protective equipment. When using do not eat, drink or smoke.
If necessary: With the formation of dust, use a dust mask.
- 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.
- Specific use(s) Article for orthopedic procedures.

Storage

- Requirements for storerooms and containers:
Store at room temperature.
Protect from: heat, UV-radiation/sunlight
- 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.
In case of warming: Make sure that the processing machines are well equipped with suction and ventilation systems.
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. In case of warming: If necessary: Protective gloves against thermic risks 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: In case of dust formation: Dust mask.
General hygiene considerations:	For mechanical processing: Avoid generation of dust. In case of warming: Do not breathe vapors. Wash hands before breaks and after work. Provide a conveniently located eye rinse station. When using do not eat, drink or smoke.

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:	Thermoplastic: > 300 °C
Ignition temperature:	Carbon fibers: 662 °F

10. Stability and reactivity

Reactivity:	No data available
Chemical stability:	Stable under recommended storage conditions.
Possibility of hazardous reactions:	Carbon Fiber is electrically conductive. It can cause short circuits within electrical equipment, if material dusts penetrate into the ambient air.
Conditions to avoid:	Protect from: heat, UV-radiation/sunlight.
Incompatible materials:	No data available
Hazardous decomposition products:	In case of fire may be liberated: carbon monoxide and carbon dioxide.
Thermal decomposition:	Thermoplastic: > 300 °C

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: Possible in traces: formation of WHO-fibers.
	classification WHO-fibers: Causes concern for man owing to possible carcinogenic effects.
	In case of heating: risk of burns.

Symptoms

Carbon fibers (dust): mild irritant.

12. Ecological information

Ecotoxicity

Further details:	No data available
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Mobility in soil

No data available

Persistence and degradability

Further details: Product is not biodegradable.

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.

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

Product: Refer to 29 CFR Part 1910 subpart q - Welding, Cutting, Brazing 1910.252.

Carbon fibers: NIOSH Recommendations:
Occupational Health Guideline: 0307

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: 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
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
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
TRGS: Technical Rules for Hazardous Substances
UV: Ultraviolet
vPvB: Very persistent and very bioaccumulative

Reason of change: Changes in section 8: Occupational exposure limit values

Date of first version: 12/2/2008



SAFETY DATA SHEET

according to 29 CFR 1910.1200 and ANSI standard Z400.1-2010

28U11 - Walk On AFO

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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.