

1. Identification

Product identifier

Trade name: 87Zx - Fibersil

This safety data sheet pertains to the following products:

Article No. 87Z1: Fibersil = white

Article No. 87Z2: Fibersil = dark red

Article No. 87Z3: Fibersil = yellow

Article No. 87Z4: Fibersil = blue

Article No. 87Z5: Fibersil = red

Article No. 87Z6: Fibersil = black

Article No. 87Z7: Fibersil = brown

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

General use: Coloring agent for Silicone for orthopedic procedures.

Reserved for industrial and professional use.

Details of the supplier of the safety data sheet

Company name: Otto Bock Health Care

Street/POB-No.: 3820 W. Great Lakes Drive

Zip 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 telephone number

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

2. Hazard identification

Classification of the substance or mixture

This material is classified as not hazardous.

Label elements

Symbols: not applicable

Hazard statements: not applicable

Precautionary statements: not applicable

Other hazards

Fibers/dust: May cause irritations.
In case of eye contact: Mild irritant.
Danger of dust explosion.

3. Composition/information on ingredients

Mixtures

Chemical characterization: -Cellulose (viscose)-fibers (diameter: 8 - 50 µm, length: 0,3 - 0,5 mm). With the mentioned dimensions, these cut flock products are above the dimensions of "Respirable Fine Dust Fibres".
-Pigment.
-Coating agent < 0,5 %: Inorganic and organic chemicals which are indispensable for flock quality intended for electrostatic flocking.

Relevant ingredients:

CAS No.	Designation	Concentration	Classification
CAS 68442-85-3	Cellulose, regenerated	< 60 %	not classified
CAS 61788-77-0	Cellulose fiber	< 60 %	not classified

The actual concentration or concentration range is withheld as a trade secret.

4. First aid measures

In case of inhalation: Provide fresh air. Rinse mouth thoroughly with water.
Seek medical treatment in case of troubles.

Following skin contact: Remove residues with soap and water.

After eye contact: 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: Rinse mouth thoroughly with water.
Let water be swallowed in little sips.
Seek medical treatment in case of troubles.

Most important symptoms/effects, acute and delayed

In case of inhalation: May cause irritations.
In case of eye contact: Mild irritant.

Information to physician

Treat symptomatically.

5. Fire-fighting measures

Suitable (and unsuitable) extinguishing media

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

Danger of dust explosion.

Emits toxic fumes under fire conditions.

In case of fire may be liberated: hydrogen cyanide, nitrogen oxides (NO_x), carbon monoxide and carbon dioxide

Protective equipment and precautions for firefighters

Wear self-contained breathing apparatus.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Avoid generation of dust. Wear appropriate protective equipment.

Environmental precautions:

Discharge into the environment must be avoided.

Methods and material for containment and cleaning up

Methods for clean-up: Take up mechanically, placing in appropriate containers for disposal. Final cleaning.

7. Handling and storage

Precautions for safe handling

Advices on safe handling: Provide adequate ventilation. The use of local exhaust ventilation is recommended.

Avoid generation of dust. Wear appropriate protective equipment.

Precautions against fire and explosion:

Danger of dust explosion. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers:

Keep container tightly closed. Protect from moisture contamination.

8. Exposure controls/personal protection

Control parameters

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)

Appropriate engineering controls

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

Personal protection equipment (PPE)

Respiratory protection:	With the formation of dust, use a dust mask. Respiratory protection must be worn whenever the TLV (WEL) levels have been exceeded. Particle filter device (EN 143) according to OSHA Standard - 29 CFR: 1910.134 or ANSI Z88.2.
Hand protection:	If necessary: Protective gloves according to OSHA Standard - 29 CFR: 1910.138. Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection:	Tightly sealed safety glasses according to OSHA Standard - 29 CFR: 1910.133 or ANSI Z87.1-2003
Body protection:	Wear suitable protective clothing.
General hygiene considerations:	Avoid generation of dust. Avoid contact with eyes. 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

Physical state at 68 °F and 101.3 kPa	Form: solid, fibers
Color:	refer to section 1
Odor:	odorless
Odor threshold:	No data available
Melting point/freezing point:	No data available
Initial boiling point and boiling range:	No data available
Flammability:	No data available
Explosion limits:	No data available
Flash point/flash point range:	No data available
Evaporation rate:	No data available
Auto-ignition temperature:	No data available
Decomposition temperature:	> 347 °F
pH:	No data available
Viscosity:	No data available
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	No data available
Vapor pressure:	No data available
Density:	1.52 g/cm ³
Vapor density:	No data available
Particle characteristics:	Not applicable

Additional information

Explosive properties:	Danger of dust explosion.
Ignition temperature:	approx. 788 °F
Bulk density:	50 - 200 kg/m ³

Additional information:

Minimum ignition energy in mJ: approx. 150

Dust explosion category: 1

Cut Flock/air mixtures may be explosive within certain concentration limits and sufficiently high ignition energies.

On DC electrostatic flocking installations, flock samples can only be ignited at discharge energy > 1300 mJ. Such discharges can only be achieved on a breakdown of the electrostatic flocking installations. On AC electrostatic flocking installations, ignitions of flock are more easy.

Effects of solvents from adhesives in the air have to be considered carefully.

For safe operation of electrostatic flocking installations, check NFPA 33.

To follow:

EN 50223: Automatic electrostatic application equipment for flammable flock material.

NFPA 33: Standard for spray application using flammable or combustible materials.

10. Stability and reactivity

Reactivity: No data available

Chemical stability: Combustible.
Product is stable under normal storage conditions.

Possibility of hazardous reactions:
Danger of dust explosion.

Conditions to avoid: Take precautionary measures against static discharges.
Avoid generation of dust.

Incompatible materials: No data available

Hazardous decomposition products:
Emits toxic fumes under fire conditions.
In case of fire may be liberated: hydrogen cyanide, nitrogen oxides (NOx), carbon monoxide and carbon dioxide

11. Toxicological information

Information on toxicological effects

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.

Symptoms

In case of inhalation: May cause irritations.
After eye contact: Mild irritant.

12. Ecological information

Ecotoxicity

Effects in sewage plants: Mechanical separation in a suitable sewage plant is possible.

Further details: No data available

Persistence and degradability

Further details: Product is biodegradable with difficulty.

Bioaccumulative potential

Partition coefficient: n-octanol/water:
No data available

Mobility in soil

No data available

Other adverse effects

General information: Discharge into the environment must be avoided.

13. Disposal considerations

Waste treatment methods

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

DOT, IMDG, IATA-DGR: not applicable

UN proper shipping name

DOT, IMDG, IATA-DGR: Not restricted

Transport hazard class(es)

DOT, IMDG, IATA-DGR: not applicable

Packing group

DOT, IMDG, IATA-DGR: not applicable

Environmental hazards

Marine pollutant: no

Transport in bulk according to IMO instruments

No data available

Special precautions for user

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

Cellulose, regenerated: TSCA Inventory: listed; UVCB

Cellulose fiber: TSCA Inventory: listed; UVCB

National regulations - U.S. State Regulations

No data available

Further regulations, limitations and legal requirements

No data available

16. Other information

Revision date: 12/17/2025

Date of first version: 8/20/2008

Reason of change: General revision: Safety Data Sheet according to Hazardous Products Regulations (HPR) 2022

General revision: Safety Data Sheet according to HCS 2024 (29 CFR 1910.1200)

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:

AS/NZS: Australian Standards/New Zealand Standards

CAS: Chemical Abstracts Service

CFR: Code of Federal Regulations

CLP: Classification, Labelling and Packaging

DIN: German Institute for Standardization

DMEL: Derived minimal effect level

DNEL: Derived no-effect level

DOT: Department of Transportation's Safety Regulations (USA)

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

NF: French Standard

NFPA: National Fire Protection Agency

OEL: Occupational Exposure Limit Value

OSHA: Occupational Safety and Health Administration

PBT: Persistent, bioaccumulative and toxic

PNEC: Predicted no-effect concentration

TLV: Threshold Limit Value

TRGS: Technical Rules for Hazardous Substances

vPvB: Very persistent and very bioaccumulative

WEL: Workplace Exposure Limit



SAFETY DATA SHEET

according to HCS 2024 (29 CFR 1910.1200)

87Zx - Fibersil

Material number 087Z1-7

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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.