MSDS Safety Data Sheet according to Reg. (EC) N. 453/2010

BendLay

Section 1 .Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

BendLay

1.2 Company Identification

Orbi-Tech GmbH, Motlkestrasse 25, 42799 Leichlingen, Germany

Section 2. Hazards Identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP) or Directive 67/548/EEC or 1999/45/EC
This mixture is classified as not hazardous.

2.2 Label elements

Labelling (CLP)
Hazard statements: not applicable
Safety precautions: not applicable

Labelling (67/548/EEC or 1999/45/EC)
R phrase(s):not applicable
S phrase(s):not applicable

2.3 Other hazards

Dust: Can cause skin, eye and respiratory tract irritation.
Fine dust: explosive
The melted product can cause severe burns.Swallowing may cause gastrointestinal irritation and pain of guts.

Section 3. Composition / information on ingredients

3.1 Mixtures

Chemical characterization: Polystyrene mixture contains:
CAS No. 9003-55-8: Styrene-butadiene-copolymer contains:
CAS No. 9003-53-6: Polystyrene

Section 4. First aid measures

4.1 Description of first aid measures

After inhalation: Provide fresh air. Put victim at rest and keep warm. seek medical attention
In case of skin contact: The melted product can cause severe burns.Do not remove the product from the skin without medical assistance.After contact with molten product, cool skin area rapidly with cold water. Consult physician.
After eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.Consult an eye specialist in the event of irritation.
After swallowing: Rinse mouth with water. Drink one or two glasses of water.Never give an unconscious person anything through the mouth. seek medical attention

4.2 Most important symptoms and effects, both acute and delayed

Dust: Skin irritation, eye irritations and redness

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically. (Decontamination, vital functions)

Section 5. Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water fog, foam, extinguishing powder, carbon dioxide (CO2).
Extinguishing media which must not be used for safety reasons: Full water jet

5.2 Special hazards arising from the substance or mixture

I**n case of fire may be liberated:** smoke, carbon monoxide and carbon dioxide (CO2).
In case of dust (Fine dust): danger of dust explosion

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: Hazchem-Code: -Do not allow fire water to penetrate into surface or ground water. Fire residuals and contaminated extinguishing water must be disposed of in accordance with the regulations of the local authorities.

Section 6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.
Wear personal protection equipment. Do not breathe dust.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Take up mechanically. Collect in closed containers for disposal.
Avoid generation of dust. Remove all sources of ignition. Provide adequate ventilation.

Additional information: Special danger of slipping by leaking/spilling product.

Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed. Do not breathe dust. In the case of the formation of dust: Withdraw by suction. Molten material: Avoid contact with the substance.

Precautions against fire and explosion: Take precautionary measures against static discharge. Keep away from sources of ignition.
Use grounding equipment. Use explosion-proof equipment and non-sparking tools/utensils.
Avoid open flames.
In case of dust (fine dust): danger of dust explosion.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storerooms and containers: Store in a well-ventilated place. Keep container tightly closed.Protect against heat /sun rays.
Storage class:11 = Combustible solids

Section 8 Exposure controls/personal protection

8.1 Exposure controls

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

8.2 Occupational exposure controls

Respiratory protection: Respiratory protection must be worn whenever the WEL levels have been exceeded. Use filter type A-P2 according to EN 14387.

Hand protection: Protective gloves according to EN 374.
Glove material: Nitrile rubber - Layer thickness: 0,11 mm.
Breakthrough time: >480 min.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
In case of melting: Protective gloves against heat according to EN 407.
Observe glove manufacturer's instructions concerning penetrability and breakthrough time.
Eye protection: Tightly sealed goggles according to EN 166.
Body protection: Wear suitable protective clothing.
General protection and hygiene measures: Molten material: Avoid contact with skin.
Do not inhale dust particles or vapours. Keep away from sources of ignition. Wash hands before breaks and after work. In case of dust: Particular danger of slipping when spread on the ground.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Physical state: solid, granulate	Explosion limits:	No data availableNo data available
Colour:	colourless, clear	Vapour pressure:	No data available
Odour:	weak, characteristic	Vapour density:	No data available
Odour threshold:	No data available	Density:at 20 °C:	approx. 1,05 g/cm³ (DIN 53479)
pH value:	No data available	Water solubility:	insoluble
Melting point/melting range:	> 30 °C (DIN EN ISO 306)	Partition coefficient n-octanol/water:	No data available
Boiling temperature/boiling range:	No data available	Autoflammability:	No data available
Flash point/flash point range:	> 280 °C	Thermal decomposition:	approx. 300 °C
Vapourisation rate:	No data available	Viscosity, dynamic:	No data available
Flammability:	No data available	Explosive properties:	No data available
Explosive properties:	Dust explosion risk at fine dust	Oxidizing characteristics:	Oxidising potential: not oxidising

9.2 Other information

Ignition temperature:	> 400 °C (DIN 51794)
Bulk density:	at 20 °C: approx. 640 kg/m³ (DIN 53466)
Additional information:	No data available

Section 10. Stability and reactivity

10.1 Reactivity

In case of dust (Fine dust): danger of dust explosion

10.2 Chemical stability

Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions

In case of dust (Fine dust): danger of dust explosion

10.4 Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition.Avoid dust formation.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In case of fire may be liberated: smoke, carbon monoxide and carbon dioxide (CO2).
Thermal decomposition: approx. 300 °C

Section 11. 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. not to be expected
Eye damage/irritation: Lack of data. not to be expected
Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Lack of data. not to be expected
Germ cell mutagenicity/Genotoxicity: Lack of data. not to be expected
Carcinogenicity: Lack of data. not to be expected
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. not to be expected

Aspiration hazard: Lack of data.

Other information: When handled appropiately, even after long years of experience with this product, no adverse health effects are known.

Symptoms
Dust: Can cause skin, eye and respiratory tract irritation.
The melted product can cause severe burns.
Thermal treatment, Processing:
Irritating to eyes, respiratory system and skin.
In case of ingestion: Swallowing may cause gastrointestinal irritation and pain of guts.

Section 12. Ecological information

12.1 Toxicity

Aquatic toxicity: no evidence of aquatic toxicity
Water Hazard Class: nwg = non-hazardous to water (WGK catalog number 766)

12.2 Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable.The product is likely to persist in the environment.
Effects in sewage plants: In sewage treatment plants it may be separated mechanically.

12.3 Bioaccumulative potential

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments.
Partition coefficient n-octanol/water: No data available

12.4 Mobility in soil

No data available

12.5 Other adverse effects

General information: Do not allow to enter into ground-water, surface water or drains.

Section 13. Disposal considerations

13.1 Waste treatment methods

Product
Waste key number: 07 02 99 = wastes from the MFSU of plastics, synthetic rubber and man-made fibres
MFSU = manufacture, formulation, supply and use
Recommendation: With due observance of the regulations laid down by the local authorities, this must be brought to a suitable incineration plant/waste disposal site.
Contaminated packaging
Recommendation: Dispose of waste according to applicable legislation.
Non-contaminated packages may be recycled.

Section 14, Transport information

14.1 UN number

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: Not restricted

14.3 Transport hazard class(es)

not applicable

14.4 Packing group

not applicable

14.5 Environmental hazards

Marine pollutant No

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

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

No data available

Section 15. Regulatory information

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

National regulations - Great Britain Hazchem-Code: -
National regulations – USA 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
National regulations – Canada DSL: Listed15.2

15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

Section 16. Other Information

Orbi-Tech GmbH urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.