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

HiPS

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

1.1 Product identifiers

Product Name HiPS

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): This substance is classified as not hazardous.

Classification according to directive 67/548/EEC: This substance 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.

Section 3. Composition / Information on Ingredients

3.1 Substances

Chemical characterization:polymer, styrene-butadiene-copolymer, HiPS

Section 4. First Aid Measures

4.1 Description of first aid measures

Inhalation: Provide fresh air. Put victim at rest and keep warm. seek medical attention
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.
Eyes contact: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Consult an eye specialist in the event of irritation.Remove contact lenses, if present and easy to do. Continue rinsing.
After swallowing: Do not induce vomiting. Rinse mouth with water.Drink one or two glasses of water.Never give an unconscious person anything through the mouth.

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

Section 5. Firefighting Measures

5.1 Extinguishing media

Suitable extinguishing media: Water fog, foam.
Only in case of small fires: extinguishing powder, carbon dioxide, Sand, earth.
Extinguishing media which must not be used for safety reasons: High power water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: smoke, Styrene-Monomer, butadiene, aldehydes and acids (organic), carbon

monoxide and carbon dioxide (CO_2).

5.3 Advice for firefighters

Special protective equipment for firefighters: Wear self-contained breathing apparatus.

Additional information: Hazchem-Code: - Cool endangered containers with water jetspray.

Section 6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Dust forms explosive mixtures with air. Remove all sources of ignition.
Provide adequate ventilation. Do not breathe dust. Wear personal protection equipment.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Avoid generation of dust. Take up mechanically. Can be reused without regeneration.
Otherwise, dump or burning.

Additional information: Take precautionary measures against static discharge.
Particular danger of slipping when spread on the ground.

6.4 Reference to other sections

Refer additionally to chapter 8 and 13.

Section 7. Handling and Storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Avoid dust formation. In the case of the formation of dust: Withdraw by suction.
Molten material: Avoid contact with the substance.

Precautions against fire and explosion: Dust forms explosive mixtures with air. Take precautionary measures against static discharge.
Keep away from sources of ignition. Use grounding equipment.
Use explosion-proof equipment and non-sparking tools/utensils.

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.
Further details: Special danger of slipping by leaking/spilling product.
Storage class: 11 = Combustible solids

7.3 Specific end use(s)

No information available.

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: In case of dust:
Use filter type A-P1 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: Do not breathe dust.
Take off immediately all contaminated clothing.
When using do not eat, drink or smoke.
Wash hands before breaks and after work.
Eye wash facility must be provided.
In case of dust: Particular danger of slipping when spread on the ground.

Section 9. Physical and Chemical Properties

Appearance:		Explosion limits:	no data available
Physical state:	solid, pellets	Vapour pressure:	no data available
Colour:	colourless	Vapour density:	no data available
Odour:	weak	Density:	at 20 °C approx. 1030 kg/m³ (ISO 1183)
Odour threshold:	no data available		
pH value:	no data available	Water solubility:	insoluble
Melting point/melting range:	no data available	Partition coefficient n-octanol/water:	no data available
Boiling temperature/boiling range:	no data available	Autoflammability:	not self-igniting
Flash point/flash point range:	> 280 °C	Thermal decomposition:	no data available
Vapourisation rate:	no data available	Viscosity, dynamic:	no data available
Flammability:	Not highly flammable.	Explosive properties:	no data available
Explosive properties:	no data available	Oxidizing characteristics:	no data available

Other information

Ignition temperature:	approx. > 400 °C	Additional information:	no data available
Bulk density:	approx. 600 g/cm³		

Section 10. Stability and Reactivity

10.1 Reactivity

Refer to possibility of hazardous reactions.

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

In case of dust (fine dust): danger of dust explosion.

10.4 Conditions to avoid

Avoid dust formation. Dust forms explosive mixtures with air.
Keep away from sources of ignition - no smoking.

10.5 Incompatible materials

Strong oxidizing agents.

10.6 Hazardous decomposition products

In case of fire may be liberated: smoke, Styrene-Monomer, butadiene, aldehydes and acids (organic), carbon monoxide and carbon dioxide (CO2).
Thermal decomposition: no data available

Section 11. Toxicological Information

11.1 Information on toxicological effects

Acute toxicity

LD50 oral:	> 2000 mg/kg
LD50 dermal:	> 2000 mg/kg

Toxicological effects

Acute toxicity (oral):	Based on available data, the classification criteria are not met. Mild acute toxicity
Acute toxicity (dermal):	Based on available data, the classification criteria are not met. Mild acute toxicity
Acute toxicity (inhalative):	Lack of data. Mild acute toxicity. May cause irritations.
Skin corrosion/irritation:	Lack of data. May cause irritations.
Eye damage/irritation:	Lack of data. May cause irritations.

Sensitisation to the respiratory tract: Lack of data.
Skin sensitisation: Based on available data, the classification criteria are not met. Not sensitising

Germ cell mutagenicity/Genotoxicity: Lack of data.
Carcinogenicity: Lack of data. Carcinogen Status: IARC Rating: 3
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: When handled appropiately, even after long years of experience with this product, no adverse health effects are known.
Styrene: Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure.
Lung damages
May be fatal if swallowed and enters airways.
Causes serious eye irritation. Causes skin irritation.
Butadiene: May cause cancer. May cause genetic defects.

11.2 Symptoms

Dust: Skin irritation, eye irritations and redness
The melted product can cause severe burns.
Thermal treatment, processing: Irritating to eyes, respiratory system and skin.

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.
Degradation at UV-radiation/sunlight
Environmental half-life period: >=100 days (estimated)
Effects in sewage plants: Not toxic to sewage organisms
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

Product is not soluble in water.
Substance is heavier than water and sinks.
mobility in soil: low

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

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

Section 13. Disposal Considerations

13.1 Waste treatment methods

Product
Waste key number: 07 02 13 =wastes from the MFSU of plastics, synthetic rubber and man-made fibres
Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging
Waste key number: 15 01 02 =Plastic packaging
Recommendation: Dispose of waste according to applicable legislation.

Section 14. Transport Information

UN number: not applicable
UN proper shipping name: ADR/RID, IMDG, IATA: Not restricted

Transport hazard class(es): not applicable
Packing group: not applicable
Environmental hazards: Marine pollutant: No
Special precautions for user: No dangerous good in sense of these transport regulations.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Codeno: data available

Section 15. Regulatory Information

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

National regulations – USA
TSCA Inventory: listed; EPA flags XU
TSCA HPVC: not listed
Carcinogen Status: IARC Rating: Group 3 OSHA Carcinogen: not listed NTP Rating: not listed
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: listed

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.