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MATERIAL SAFETY DATA SHEET

Sterngold Part Number: 810015

Sterngold Description: Hader Bars only, 6 per package


Supplier Number: Krasten 137, 152, 154, 171,172


Supplier Description: Polystyrene (homopolymer)


Supplier MSDS Identification: n/a

2/9/12

Date Updated:

	MATERIAL SAFETY DATA SHEET	According to EC regulation: 1907/2006 (REACH)
	KRASTEN[®] General purpose polystyrene (bulk polymerisation)	Page: 1 from 3
Date issued: 13.11.2007		REACH registration number: -
Revision No.: 01		Revision date: 1.6.2008
1. Identification of the substance/preparation and of the company/undertaking		
1.1	Identification of the substance or preparation: Chemical name/trade name of the substance/preparation: Polystyrene (homopolymer) / KRASTEN137, KRASTEN152, KRASTEN154, KRASTEN171, KRASTEN172	
1.2	Use of the substance/preparation: After used type for example production of packaging for food industry (for low fat food products), sanitary and household goods, tracing templates, hear-formed packaging, panels pro shower stalls, lightweight insulation boards etc.	
1.3	Company/undertaking identification: Trade name: SYNTHOS Kralupy a.s. Place of business: Kralupy nad Vltavou, 278 01 CRN: CZ 28214790 Telephone: exchange +420-315 711 111, commercial department +420-315 713 241 Fax: +420-315 713 802	
1.4.	Emergency Telephone: Emergency telephone number SYNTHOS Kralupy a.s.: Dispatching: tel. +420-315 727 085, +420-315 713 041 Emergency telephone number in Czech Republic: Toxicological information centre, Na Bojišti 1, 128 08 Praha 2, Tel. 24 hours/day: +420-224 919 293, +420-224 915 402, Fax: +420-224 914 570	
2. Hazards Identification		
	Product is not classified as dangerous in accordance with 67/548/EEC.	
2.1	Classification: None	
2.2	Most important hazards for human health by use: none	
2.3	Most important hazards for environment by use: none	
2.4	Possible wrong use: do not heat up product over allowable temperature (see section 10)	
3. Composition/Information on Ingredients		
	1. Chemical name: Polystyrene (homopolymer) Content in (% Wt.): min. 99,9 Classification: none; Safety symbol: none, R - Phrases: none, S - Phrases: none CAS Nr.: 9003-53-6; ES (EINECS) Nr.: none, Index number: none Other name of the substance/preparation: none	
	2. Chemical name: Residual Styrene Content in (% Wt.): max. 0,035 Classification: R10; Xn R20; Xi R36/38, Safety symbol: Xn; R - Phrases: 10-20-36/38; S - Phrases: 23 CAS Nr.: 100-42-5; ES (EINECS) Nr.: 202-851-5; Index number: 601-026-00-0	
4. First Aid Measures		
4.1	General advice: character of the granules (pellets) requires no special measures.	
4.2	Inhalation: Impossible, but is necessary avoid the inhalation of vapours by working of product. Ensure a sufficient air exchange in work area.	
4.3	Skin contact: After skin contact with melt immediately wash skin with cold water, in case of burn, obtain medical attention.	
4.4	Eye contact: wash out with plenty of water	
4.5	Ingestion: no probable	
5. Fire-Fighting Measures		
5.1	Suitable extinguishing media: shattered water, heavy, medium and light foam, CO ₂	
5.2	Unsuitable extinguishing media: none	
5.3	Specific hazards: The combustion produces CO, aromatic hydrocarbons and plenty of carbon blacks.	
5.4	Special protective equipment for fire-fighters: self-contained breathing apparatus + complete protective clothing	
6. Accidental Release Measures		
6.1	Preventive personal precautions: Character of the product requires no measures.	
6.2	Preventive environmental precautions: Character of the product requires no measures.	
6.3	Cleaning methods: mechanically remove.	
7. Handling and Storage		
7.1	Handling:	
7.1.1	Standard handling. Ensure a sufficient air exchange. Eliminate all possible sources of ignition in work area.	
7.1.2	Product is not dangerous for environment and water – no special measures are required	
7.1.3	Specific requirements: none	
7.2	Storage:	
7.2.1	Granulate is stored in PE bags or in octabins with PE inlay. Observe the fire fighting measure.	
7.2.2	Quantity storage limits are not given.	
7.3	Specific use: see section 1.2	

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8. Exposure controls/Personal protection			
8.1	Exposure limit values: none		
8.2	Exposure controls:		
8.2.1	Occupational exposure controls:		
	Ensure a sufficient air exchange in work area. Use personal protective equipment.		
8.2.1.1	Respiratory protection: in well-ventilated place – not required		
8.2.1.2	Eye protection: goggles / protection glasses or face shield		
8.2.1.3	Hand protection: protective gloves (cloth, leather gloves etc.)		
8.2.1.4	Skin protection: working cloth		
8.2.2	Environmental exposure control: Product is not dangerous for environment and water.		
9. Physical and Chemical Properties			
9.1	General information:		
	Physical state (at 20 °C): solid		
	Colour: natural or coloureds granules (pellets)		
	Odour: odourless		
9.2	Important health, safety and environment information		
	pH (at °C): not determined		
	Melting/Congel point (°C): not determined		
	Boiling point (°C): not determined		
	Flash point (°C): 385 - 415		
	Flammability: product burns after ignition		
	Explosion properties: not determined		
	Oxidizing properties: none		
	Vapour pressure (at 20°C): not evaporated		
	Density: 1046 – 1052 kg/m ³ at 20 °C		
	Solubility: - in water: insoluble		
	- in oils: insoluble		
	Partition coefficient n-octanol/water: not determined		
	Viscosity: not determined		
	Relative density of vapours (air = 1): not determined		
	Evaporation rate: not evaporated		
9.3.	Other information: Soluble in Benzene, Toluene, Cyklohexane, Trichlormethane, Methylen chloride, swelling in Ketones, Esters, etc.		
	Temperature of ignition: 400 - 435 °C		
10. Stability and Reactivity			
	Conditions for stability of the product: polymer is stable substance under usual application conditions		
10.1	Conditions to avoid: heating up over allowable temperature (temperature of decomposition: approx. 300°C)		
10.2	Materials to avoid: strong oxidizing agents		
10.3	Hazardous decomposition products:		
	• Stabilizing agents' requirement: not required		
	• Possibility of the dangerous exothermic reaction: Combustion and thermal decomposition give carbon black, carbon oxides and various organic compounds. The thermal decomposition gives Styrene mainly at temperatures from 300 to 400 °C. Product is completely degraded at 450 °C. The carbon monoxide is major gas in the decomposition products at temperature 600 °C.		
	• Safety significance of the possible change of the substance/preparation physical state: see section „possibility of the dangerous exothermic reaction“		
	• Hazardous decomposition products formed by contact with water: see section „possibility of the dangerous exothermic reaction“		
	• Possibility of degradation to unstable products: see section „possibility of the dangerous exothermic reaction“		
11. Toxicological Information			
	Product is not toxic; dust may irritate respiratory system and eyes.		
11.1	Dangerous-to-health effects:		
	Inhalation: inhalation of plenty of dust may irritate respiratory system		
	Ingestion: no probable		
	Skin contact: see section 4.3		
	Eye contact: dust may irritate eyes		

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11.2	Acute toxicity <ul style="list-style-type: none">• LD₅₀, oral, rat (mg/kg): not determined• LD₅₀, dermal, rat or rabbit (mg/kg): not determined• LC₅₀, inhalation, rat, for aerosols or particles (mg/m³): not determined• LC₅₀, inhalation, rat, for gases and vapours (mg/m³): not determined Sub chronic – chronic toxicity: none Sensibilisation: none Carcinogenic effect: none Mutagenic effect: none Teratogenic effect: none Experiences by human: none Tests on animals: no tests	
12.	Ecological Information	
12.1	Ecotoxicity: product is not toxic Acute toxicity for water organism: LC ₅₀ , 96 hrs., fishes (mg/m ³): not determined EC ₅₀ , 48 hrs., daphnia (mg/m ³): not determined IC ₅₀ , 72 hrs., algae (mg/m ³): not determined	
12.2	Mobility: product is possible mechanically remove.	
12.3	Persistence and degradability: product is not degradable and is not volatile	
12.4	Bioaccumulative potential: not determined	
12.5	Other adverse effects: none	
13.	Disposal Considerations	
13.1	Mechanically remove, liquidate in special incinerator of chemical waste, in compliance to corresponding regulations	
13.2	Packaging is not contaminated – possibility of reuse.	
13.3	Directive applicable to waste: Directives 91/156/EEC and 91/689/EEC.	
14.	Transport Information Product is not dangerous for transport.	
15.	Regulatory Information	
15.1	Information on packaging: Safety symbols: none; R - phrases: none; S - phrases: none	
15.2	Specific requirements for personal and environment protection: none	
15.3	Legal regulations applicable to substance/preparation: Regulation (EC) No 1907/2006 of the European Parliament and of the Council – REACH. Council Directive 67/548/EEC on the approximation of the laws, regulations and administrative provisions relating to the classification, packaging and labelling of dangerous substances. Commission Directive 2001/58/EC of 27 July 2001 amending for the second time Directive 91/155/EEC defining and laying down the detailed arrangements for the system of specific information relating to dangerous preparations in implementation of Article 14 of European Parliament and Council Directive 1999/45/EC and relating to dangerous substances in implementation of Article 27 of Council Directive 67/548/EEC (safety data sheets). Environment - Directives 91/156/EEC - Concept of "waste". Environment - Waste - Directives 91/689/EEC.	
16.	Other information Data contained in this sheet apply only to the particular product and correspond to our current knowledge and experience and do not have to be exhaustive. It is the user who is responsible for handling under existing local law and regulations.	
16.1	List of relevant R-Phrases: 10- Flammable 20- Harmful by inhalation. 36/38- Irritating to eyes and skin.	
16.2	Training advice: according to national's regulations.	
16.3	Recommended restrictions on use: If the product is used different then is given in section 1.2, commercial section gives specific information - see section 1.3	
16.4	Producer elaborated this safety data sheet according to order regulation 1907/2006. Author of revision: P. Přerost	
16.5	Revised sections: section 1.3	