

Material Safety Data Sheet

Processed according to Regulation (EC) No. 1907/2006 (REACH),
as amended by Regulation (EC) No. 453/2010.
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Page 1 / 5

1. IDENTIFICATION OF SUBSTANCE/MIXTURE AND COMPANY/UNDERTAKING

1.1 Product identifier

Polystyrene modified by polybutadiene rubber (grafted) / KRASTEN 336M, KRASTEN 552M, KRASTEN 562E, KRASTEN 662E.

1.2 Relevant identified uses of the substance or mixture and non-recommended uses

Identified uses

According to the used type, for example for manufacture of products with complicated shapes and thin-walled products, electrical parts, boards, foils, packaging (for example milk industry - for low-fat foodstuffs) etc.

Non-recommended uses

None.

1.3 Details on MSDS supplier

Name or business name: SYNTHOS Kralupy, a.s.

Registered office or place of business: O. Wichterleho 810, Kralupy nad Vltavou, 278 01, Czech Republic

Identification number: 28214790

Phone: Exchange: +420-315 711 111, Trade department: +420-315 713 241

Fax: +420-315 713 820, E-mail: synthos-cz@synthosgroup.com

1.4 Emergency phone number

Emergency telephone number SYNTHOS Kralupy a.s.: Dispatching: phone +420 315 727 085, +420 315 713 041

Emergency telephone number in the Czech Republic: Toxicological Information Centre, Na Bojišti I, 128 08 Prague 2,

Phone Non-stop phone: +420 224 919 293, +420 224 915 402, Fax: +420 224 914 570

2. HAZARDS IDENTIFICATION

The substance is not classified as hazardous.

2.1. Substance classification

2.1.1. Mixture classification according to classification rules comprised in the Directive 1999/45/EC and in Regulation (EC) No 1272/2008 (CLP)

This product is not classified as a hazardous substance.

2.2. Label elements

The product does not have to be labelled in accordance with legal regulations of the European Union and national legislation.

2.3. Other hazards

None of the product components does meet criteria for PBT and/or vPvB properties.

3. COMPOSITION/INFORMATION ON INGREDIENTS

The product does not contain any hazardous ingredients in amounts requiring, in accordance with legal regulations of the European Union and national regulations, their mentioning in this part of the MSDS.

4. FIRST AID MEANS

4.1. Description of first aid means

4.1.1. Inhalation

Should inhalation of vapours of the melted product cause nausea, go to fresh air. Rinse the oral cavity with clean water. Should symptoms persist, seek medical attention.

4.1.2. Skin contact

In the case of contact with the melted/hot product, cool the skin with water immediately. Do not remove the product from the skin and stuck clothes. Put sterile bandage on the burned areas. Seek medical attention immediately.

4.1.3. Eye contact

Rinse with plenty of water for at least 15 minutes (also under the lids), - get medical attention.

If the product is molten, cool the eyes quickly and rinse them with clean water for at least 15 minutes (also under the lids). If possible, remove contact lenses (if they did not stick to the eye). Put sterile bandage on the burned areas. Seek attention of an ophthalmologist.

Material Safety Data Sheet

Processed according to Regulation (EC) No. 1907/2006 (REACH),
as amended by Regulation (EC) No. 453/2010.

Page 2 / 5

4.1.4. Ingestion

Not likely.

4.2. Most important acute and delayed symptoms and effects of exposition

None

4.3. Instructions concerning any immediate medical attention, and special care of the affected person

None

5. FIRE FIGHTING MEASURES

5.1. Extinguishing media

5.1.1. Suitable Extinguishing Media

Shattered water, heavy, medium and light foam, CO₂.

5.1.2. Unsuitable extinguishing media

None

5.2. Special hazards arising from the substance or mixture:

CO, aromatic hydrocarbons and high amount of soot are produced during burning.

5.3. Instructions for fire-fighters:

Evacuate all persons who are not participating in salvage operations from the endangered area. Fire-fighters with complete protective equipment and autonomous breathing apparatus (SCBA).

Extinguished product has to be cooled down/sprinkled with water thoroughly, in order to prevent repeated fire ignition (secondary fire).

Use self-contained breathing apparatus + complete protective clothing.

5.4. Other information

Dispose of the remains on the site of the fire and water used for fire extinguishing in accordance with the valid regulations.

6. ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

In view of the product nature, no measures are necessary.

6.1.2. For emergency responders

In view of the product nature, no measures are necessary.

6.2. Environmental precautions

In view of the product nature, no measures are necessary.

6.3. Methods and material for containment and cleaning up

6.3.1. Advice on how to contain a spill

In view of the product nature, no measures are necessary.

6.3.2. Recommendations for disposal of spillage

Remove mechanically.

6.4. References to other sections

Not applicable.

7. HANDLING AND STORAGE

7.1. Safe handling precautions

Do not eat and drink when using the product.

Wear suitable work clothing. If necessary, wear personal protective equipment.

Standard handling. Ensure effective ventilation. Remove all possible ignition sources from the given area.

7.2. Conditions for safe storage of substances and mixtures, including any incompatibilities

The granulate is stored in PE bags or in octabins with PE lining, observe fire prevention measures.

Protect against moisture, light and weather.

Keep away from sources of heat and fire.

Amount storage limits are not determined.

7.3. Specific final applications

See item 1.2.

8. HAZARDS CONTROL/PERSONAL PROTECTION MEANS

8.1. Control parameters

8.1.1. Occupational exposure limit values valid for the Czech Republic

Not determined.

Material Safety Data Sheet

Processed according to Regulation (EC) No. 1907/2006 (REACH),
as amended by Regulation (EC) No. 453/2010.

Page 3 / 5

8.1.2. DN(M)EL values

8.1.2.1. DN(M)EL values for workers

Data are not available.

8.1.2.2. DNEL values for general population

Data are not available.

8.1.3. PNEC values

Data are not available.

8.2. Exposure controls

8.2.1 Appropriate engineering controls: See also Section 7.

8.2.2 Individual protection measures, including personal protective equipment:

8.2.2.1. Eye and face protection

Safety goggles or face shield.

8.2.2.2. Skin protection

Hand protection

Protective gloves (made of textile, leather, etc.).

Other

Wear work clothing and footwear.

8.2.2.3. Respiratory protection

Not necessary in ventilated areas.

8.2.2.4. Thermal risks

The product poses no thermal risk.

8.2.3. Environmental hazard control

The product is not dangerous for the environment and water.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

a) Appearance	solid - natural or coloured granules (pellets)
b) Odour	odourless
c) Odour threshold limit	not determined
d) pH	not relevant
e) Melting/freezing point	not relevant
f) Boiling point	not relevant
g) Flash point (°C)	340 - 400
h) Evaporation rate	not relevant
i) Flammability (of a solid body, gas)	not relevant
j) Upper/lower explosive limit	not relevant
k) Vapour tension	the product does not evaporate
l) Density	1025 - 1037.9 kg/m ³ at 20°C
m) Relative humidity	not relevant
n) Solubility	insoluble in water
o) Distribution coefficient n-octanol/water	not determined
p) Autoignition temperature	not relevant
q) Decomposition temperature	ca 300°C
r) Viscosity	not relevant
s) Explosive properties	not relevant
t) Oxidative properties	not relevant

9.2. Other information

u) Ignition temperature (°C): 365 - 485

v) Soluble in benzene, toluene, cyclohexane, trichloromethane, methylene chloride, swells in ketones, esters.

10. STABILITY AND REACTIVITY

10.1. Reactivity

The product is stable.

10.2. Chemical stability

The product is stable under the specified conditions of handling / storage.

10.3. Possibility of hazardous reactions

None.

10.4. Conditions to avoid

Heating above the allowed temperature (decomposition temperature: ca 300°C).

Material Safety Data Sheet

Processed according to Regulation (EC) No. 1907/2006 (REACH),
as amended by Regulation (EC) No. 453/2010.

Page 4 / 5

10.5. Incompatible materials

Strong oxidizing agents.

10.6. Hazardous decomposition products

Soot, carbon oxides and various organic substances are produced during burning and thermal decomposition. Mainly styrene is produced during thermal decomposition at temperatures 300 to 400°C. At 450°C, the product is fully decomposed. At the temperature of 600°C, significant carbon monoxide share is present in the decomposition products.

11. TOXICOLOGICAL INFORMATION

The product was not subject to toxicological tests.

11.1. Information on toxicological effects

11.1.1. Acute toxicity

Based on available data, the classification criteria are not met.

11.1.2. Skin causticity / irritation

Based on available data, the classification criteria are not met.

11.1.3. Serious damage / irritation to eyes

Based on available data, the classification criteria are not met. / Dust may irritate eyes.

11.1.4. Respiratory / skin sensitisation

Based on available data, the classification criteria are not met.

11.1.5. Mutagenic impacts in elementary cells

According to the conventional (classical) method referred to in Art. 6 Par. 1(a) of Directive 1999/45/EC and based on relevant information on substances reported in Section 3 (if applicable), this product is not classified as mutagenic.

11.1.6. Carcinogenic effects

According to the conventional (classical) method referred to in Art. 6 Par. 1(a) of Directive 1999/45/EC and based on relevant information on substances reported in Section 3 (if applicable), this product is not classified as carcinogenic.

11.1.7. Toxicity for reproduction

According to the conventional (classical) method referred to in Art. 6 Par. 1(a) of Directive 1999/45/EC and based on relevant information on substances reported in Section 3 (if applicable), this product is not classified as having toxic effects on reproduction.

11.1.8. STOT - single exposure

Based on available data, the classification criteria are not met.

11.1.9. STOT - repeated exposure

Based on available data, the classification criteria are not met.

11.1.10. Aspiration hazard

Aspiration of higher amount of dust may irritate air passages.

11.2. Information on likely routes of exposure

Not necessary.

11.3. Symptoms related to the physical, chemical and toxicological characteristics

The product is not classified as hazardous.

11.4. Delayed and immediate effects as well as chronic effects from short and long-term exposure

The product is not classified as hazardous. Irritation of air passages and eyes may occur during product processing in sensitive individuals.

12. ECOLOGICAL INFORMATION

The product was not subject to ecotoxicological tests.

12.1. Toxicity

The product is not classified as dangerous for the environment.

12.2. Persistence and degradability

The main product ingredient (polymer) is not readily decomposable from the point of view of biotic and abiotic decomposition.

12.3. Bioaccumulative potential

On the basis of the chemical structure, it cannot be expected that the main product ingredient (polymer) would show bioaccumulative potential.

12.4. Mobility in soil

Data are not available.

12.5. Results of PBT and vPvB properties assessment

The product does not contain substances identified as PBT/vPvB.

12.6. Other Adverse Effects

Data are not available

13. DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

The product waste will be primarily handed over to secondary use. The waste which cannot be handed over to secondary use will be disposed of (through biological, physical or chemical processes; or, optionally, through storing).

Only the waste that cannot be disposed of in another way, either for technological, environmental or economic reasons, will be stored.

Waste secondary use and disposal will be carried out only on a specified place in facilities meeting relevant requirements according to valid regulations.

Waste code: starting product: 07 02 13 - O

13.2. Disposal of used packaging

The packaging is not contaminated - may be re-used.

14. TRANSPORT INFORMATION

The product is not subject to regulations for transportation of hazardous items.

Transport in closed means of transport.

15. REGULATORY INFORMATION

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

- Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.
- Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
- Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives.

15.2. Chemical Safety Assessment

The supplier did not perform a chemical safety assessment for the mixture. In compliance with REACH requirements, the chemical safety assessment for this product is not required.

15.3. Notice

The users are notified of the possible existence of local, national and international regulations related to the product.

16. OTHER INFORMATION

16.1. Indication of the MSDS sections changed

Not applicable - new issue.

16.2. List of relevant phrases mentioned in Sections 2-15, and (if appropriate) full wording of all phrases which were not mentioned in Sections 2-15 as a whole.

Not applicable.



This document is of an informative character. The data and information presented in this document correspond to the present state of our knowledge and experience. It makes neither product properties nor qualitative parameters guarantee and cannot be used as a basis of any claims. The information provided cannot be used for any mixtures with any other substances. The product must be transported, stored and used in accordance with valid regulations and in the compliance with good occupational hygiene practice.

Making use of the information as well as product application is beyond the producer control and determination of the safe conditions of use is the sole responsibility of a customer.