

Safety data sheet

Page: 1/8

Styrolution Safety data sheet

Date / Revised: 30.08.2011

Product: **STYROLUX* 656 C CRYSTAL CLEAR**

Version: 4.0

(30036407/SDS_GEN_PK/EN)

Date of print 09.02.2012

1. Substance/preparation and company identification

STYROLUX* 656 C CRYSTAL CLEAR

Use: Polymer

Company:

Styrolution GmbH

67056 Ludwigshafen

GERMANY

www.styrolution.com

Telephone: +49 621 60-41446

E-mail address: styrenics.infopoint@styrolution.com

Emergency information:

International emergency number:

Telephone: +49 180 2273-112

2. Composition/information on ingredients

Chemical nature

Preparation based on:

Benzene, ethenyl-, polymer with 1,3-butadiene

CAS Number: 9003-55-8

3. Hazard identification

Danger of burns while handling the hot product.

4. First-Aid Measures

If inhaled:

After inhalation of decomposition products, remove the affected person to a source of fresh air and keep calm. Provide medical aid.

On skin contact:

Areas affected by molten material should be quickly placed under cold running water. Burns caused by molten material require hospital treatment.

On contact with eyes:

In case of contact with the eyes, rinse immediately for at least 15 minutes with plenty of water. If irritation develops, seek immediate medical attention.

On ingestion:

Rinse mouth and then drink plenty of water. If difficulties occur: Seek medical attention.

Note to physician:

Symptoms: No significant reaction of the human body to the product known.

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

Suitable extinguishing media:

water spray, dry powder, foam, carbon dioxide

Specific hazards:

carbon dioxide, carbon monoxide

The substances/groups of substances mentioned can be released in case of fire.

Special protective equipment:

Wear a self-contained breathing apparatus.

Further information:

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. Accidental Release Measures

Personal precautions:

Avoid inhalation. Sources of ignition should be kept well clear.

Environmental precautions:

Discharge into the environment must be avoided.

Methods for cleaning up or taking up:

Sweep/shovel up. Avoid raising dust. Ensure adequate ventilation.

Additional information: High risk of slipping due to leakage/spillage of product.

7. Handling and Storage

Handling

Processing machines must be fitted with local exhaust ventilation. Do not keep the material at processing temperature for an unusually long time. Hot residual melts should be kept under supervision until cooled down sufficiently.

Protection against fire and explosion:

Avoid dust formation. Dust can form an explosive mixture with air. Provide exhaust ventilation. When the product is ground (chopped), dust explosion regulations should be noted.

Storage

Further information on storage conditions: Protect against moisture. Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame.

8. Exposure controls and personal protection

Components with workplace control parameters

Given suitable ventilation, it can be assumed that the threshold limits will not be reached.

styrene, 100-42-5;

TWA value 20 ppm (ACGIHTLV)
STEL value 40 ppm (ACGIHTLV)

butadiene, 106-99-0;

TWA value 2 ppm (ACGIHTLV)

Personal protective equipment

Respiratory protection:

Breathing protection if dusts are formed. Particle filter with low efficiency for solid particles (e.g. EN 143 or 149, Type P1 or FFP1)

Hand protection:

Use additional heat protection gloves when handling hot molten masses (EN 407), e.g. of textile or leather.

Eye protection:

Safety glasses with side-shields (frame goggles) (e.g. EN 166)

Body protection:

Body protection must be chosen depending on activity and possible exposure, e.g. apron, protecting boots, chemical-protection suit (according to EN 14605 in case of splashes or EN ISO 13982 in case of dust).

Styrolution Safety data sheet

Date / Revised: 30.08.2011

Version: 4.0

Product: **STYROLUX* 656 C CRYSTAL CLEAR**

(30036407/SDS_GEN_PK/EN)

Date of print 09.02.2012

General safety and hygiene measures:

Avoid contact of molten material with skin. Avoid inhalation of dusts/mists/vapours. Eye wash fountains and safety showers must be easily accessible. Handle in accordance with good industrial hygiene and safety practice.

9. Physical and Chemical Properties

| | | |
|--------------------------------|--|------------------|
| Form: | granules | |
| Colour: | colourless, clear | |
| Odour: | faint specific odour | |
| pH value: | not soluble | |
| softening temperature: | 50 - 90 °C | (DIN EN ISO 306) |
| onset of boiling: | The substance / product decomposes therefore not determined. | |
| Flash point: | > 280 °C | |
| Flammability: | not highly flammable | |
| Lower explosion limit: | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. | |
| Upper explosion limit: | As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use. | |
| Ignition temperature: | > 400 °C | (DIN 51794) |
| Explosion hazard: | not explosive | |
| Fire promoting properties: | not fire-propagating | |
| Vapour pressure: | not applicable | |
| Density: | approx. 1.05 g/cm ³ (20 °C, 1 bar) | (DIN 53479) |
| Bulk density: | approx. 640 kg/m ³ (20 °C, 1 bar) | (DIN 53466) |
| Relative vapour density (air): | not applicable, The product is a non-volatile solid. | |
| Solubility in water: | insoluble | |

Styrolution Safety data sheet
Date / Revised: 30.08.2011
Product: **STYROLUX* 656 C CRYSTAL CLEAR**

Version: 4.0

(30036407/SDS_GEN_PK/EN)

Date of print 09.02.2012

Partitioning coefficient n-octanol/water (log Pow):
not applicable

Viscosity, dynamic:
not relevant

10. Stability and Reactivity

Conditions to avoid:

Avoid extreme heat. Avoid all sources of ignition: heat, sparks, open flame. Avoid long exposure to highly elevated temperatures.

Thermal decomposition: approx. 300 °C
To avoid thermal decomposition, do not overheat.

Substances to avoid:
strong oxidizing agents

Hazardous reactions:

Unusual long residence times may lead to self heating and decomposition even at processing temperature.

Hazardous decomposition products:

monomers, oxides, gases/vapours, hydrocarbons, cyclic low molecular weight oligomers, Gaseous products of degradation can be given off if the product is greatly overheated.

11. Toxicological Information

Acute toxicity

Assessment of acute toxicity:
Virtually nontoxic after a single ingestion.

Irritation

Assessment of irritating effects:
No irritation is expected under intended use and appropriate handling.

Sensitization

Assessment of sensitization:
No data was available concerning sensitizing properties. The chemical structure does not suggest such an effect.

Repeated dose toxicity

Assessment of repeated dose toxicity:
The product has not been tested. The statement has been derived from the structure of the product.

Not expected to cause chronic toxic effects.

Genetic toxicity

Assessment of mutagenicity:

No data was available concerning mutagenic activity. The chemical structure does not suggest such an effect.

Carcinogenicity

Assessment of carcinogenicity:

The whole of the information available provides no indication of a carcinogenic effect.

Reproductive toxicity

Assessment of reproduction toxicity:

No reproductive toxic effects reported. The chemical structure does not suggest such an effect.

Other relevant toxicity information

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. Ecological Information

Ecotoxicity

Assessment of aquatic toxicity:

There is a high probability that the product is not acutely harmful to aquatic organisms. The product has not been tested. The statement has been derived from the structure of the product.

Mobility

Assessment transport between environmental compartments:

Study scientifically not justified.

Persistence and degradability

Assessment biodegradation and elimination (H₂O):

The polymer component of the product is poorly biodegradable. The insoluble fraction can be removed by mechanical means in suitable waste water treatment plants.

In accordance with the required stability the product is not readily biodegradable. The product has not been tested. The statement has been derived from the structure of the product.

Bioaccumulation potential

Assessment bioaccumulation potential:

Discharge into the environment must be avoided.

Bioaccumulation potential:

The product will not be readily bioavailable due to its consistency and insolubility in water.

Additional information

Styrolution Safety data sheet
Date / Revised: 30.08.2011
Product: **STYROLUX* 656 C CRYSTAL CLEAR**

Version: 4.0

(30036407/SDS_GEN_PK/EN)

Date of print 09.02.2012

Other ecotoxicological advice:
No data can be given due to the product's insolubility in water.

13. Disposal Considerations

Must be disposed of or incinerated in accordance with local regulations.

Contaminated packaging:
Uncontaminated packaging can be recycled.

14. Transport Information

Domestic transport:

Not classified as a dangerous good under transport regulations

Sea transport
IMDG

Not classified as a dangerous good under transport regulations

Air transport
IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

Regulations of the European union (Labelling)

The product does not require a hazard warning label in accordance with EC Directives.

Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Styrolution Safety data sheet
Date / Revised: 30.08.2011
Product: **STYROLUX* 656 C CRYSTAL CLEAR**

Version: 4.0

(30036407/SDS_GEN_PK/EN)

Date of print 09.02.2012

16. Other Information

Recommended use: for industrial processing only

In addition to the information given in the safety data sheet we refer to the product specific 'Technical Information'.

Vertical lines in the left hand margin indicate an amendment from the previous version.

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. The data do not describe the product's properties (product specification). Neither should any agreed property nor the suitability of the product for any specific purpose be deduced from the data contained in the safety data sheet. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.