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

Product identifier

Trade name: Luran® S Natural

This safety data sheet pertains to the following products:
Luran® S 757G NR
Luran® S 757R NR
Luran® S 757RE SPF30 Q385
Luran® S 776S BEM
Luran® S 776S NR
Luran® S 776SE NR
Luran® S 777K BEM
Luran® S 777K NR
Luran® S 797S BEM
Luran® S 797S FC NR
Luran® S 797S FC SPL
Luran® S 797S NR
Luran® S 797S Q455 NR
Luran® S 797S SPL
Luran® S 797SE UV

Relevant identified uses of the substance or mixture and uses advised against

General use: Polymer
Basic material for chemical industry processing

Details of the supplier of the safety data sheet

Company name: Styrolution South East Asia Pte Ltd.
Street/POB-No.: 111 Somerset Road
Postal Code, city: #08-01/02 TripleOne Somerset, SG
Singapore 238164
WWW: www.styrolution.com
E-mail: infopoint.asia@styrolution.com
Telephone: +65 6933 8350
Telefax: +65 6933 8355

Dept. responsible for information:
Infopoint, Telephone: + 65 (0) 6933 - 8372
E-mail: infopoint.asia@styrolution.com

Emergency telephone number

Telephone: + 65 (0) 3158 - 1074

2. Hazards identification

Classification of the substance or mixture

GHS classification

This mixture is classified as not hazardous.

Label elements

Hazard statements: not applicable

Precautionary statements: not applicable

Other hazards

Dust: Can cause skin, eye and respiratory tract irritation.
In case of dust formation (Fine dust): danger of dust explosion
The melted product can cause severe burns.
Swallowing may cause gastrointestinal irritation and pain of guts.

3. Composition / information on ingredients

Mixtures

Chemical characterisation: Polymer mixture:
CAS No. 26299-47-8: Butyl acrylate-styrene-acrylonitrile copolymer
CAS No. 9003-54-7: Styrene-acrylonitrile copolymer

Additional information: Preparation does not contain dangerous substances above limits that need to be mentioned in this section according to applicable legislation.

4. First aid measures

In case of inhalation: Provide fresh air. Put victim at rest and keep warm. seek medical attention

Following skin contact: The melted product can cause severe burns.
After contact with molten product, cool skin area rapidly with cold water.
Burns caused by molten material must be treated clinically.

After eye contact: IF IN EYES: Immediately flush eyes with plenty of flowing water for 10 to 15 minutes holding eyelids apart. Seek medical treatment in case of troubles.

After swallowing: Rinse mouth with water. Drink one or two glasses of water.
Never give an unconscious person anything through the mouth.

Most important symptoms and effects, both acute and delayed

Dust: Skin irritation, eye irritations and redness

Indication of any immediate medical attention and special treatment needed

Treat symptomatically.
Decontamination, vital functions

5. Firefighting measures

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

Special hazards arising from the substance or mixture

In case of fire may be liberated: hydrogen cyanide, carbon monoxide and carbon dioxide (CO2).
In case of dust formation (Fine dust): danger of dust explosion

Advice for firefighters

Special protective equipment for firefighters:

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information: 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.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

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

Environmental precautions

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

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: Particular danger of slipping on spilled product on the ground.

7. Handling and storage

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 discharges. 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 formation (Fine dust): danger of dust explosion

Storage

Requirements for storerooms and containers:

Store container tightly closed in a dry area. Protect from moisture contamination.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
	Luran® S Natural	long-term	8 mg/m³
100-42-5	Styrene	long-term short-term	50 mg/m³ 100 mg/m³
107-13-1	Acrylonitrile	long-term short-term	1 mg/m³ 2 mg/m³
141-32-2	n-Butyl acrylate	long-term	25 mg/m³

Additional information: The product contains very low levels of residual monomers and process chemicals (styrene, ethylbenzene, acrylonitrile and Butyl acrylate) that may be evolved during thermal processing, along with possible decomposition products. As the identity and levels of these impurities evolved will depend upon the processing conditions (temperature etc.) it is the responsibility of the user to determine the adequacy of any protection or safety measures.

Exposure controls

Provide good ventilation in the work area. Additional controls are not normally necessary when handling the polymer.

Thermal extrusion: Provide local exhaust ventilation to ensure that the workplace exposure limit is not exceeded.
Use of respiratory protection may be necessary during maintenance activities.
See also information in chapter 7, section storage.

Personal protection equipment

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: Impervious heat protective gloves according to EN 407.
Glove material: Leather
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. Boots or Wear protective shoes.

General protection and hygiene measures:

Molten material: Avoid contact with skin.
Avoid breathing dust and vapours. Keep away from sources of ignition.
Wash hands before breaks and after work.

In case of dust formation: Particular danger of slipping on spilled product on the ground.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance:	Form: solid: granulate Colour: natural colors up to white
Odour:	weak characteristic
Odour threshold:	not determined
pH value:	not applicable
Melting point/freezing point:	> 100 °C (DIN EN ISO 306)
Initial boiling point and boiling range:	Decomposition
Flash point/flash point range:	> 400 °C
Evaporation rate:	no data available
Flammability:	Not highly flammable.
Explosion limits:	no data available

Vapour pressure:	not applicable
Vapour density:	no data available
Density:	no data available
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	not applicable
Auto-ignition temperature:	Not self-igniting
Thermal decomposition:	approx. 320 °C

Additional information

Viscosity, dynamic:	not relevant
Explosive properties:	Product is not explosive. In case of dust formation (Fine dust): danger of dust explosion
Oxidizing characteristics:	not oxidising
Ignition temperature:	> 400 °C (DIN 51794)
Bulk density:	at 20 °C: approx. 600 kg/m³ (DIN 53466)
Additional information:	Relative density: 1.07

10. Stability and reactivity

Reactivity: No hazardous reaction when handled and stored according to provisions.

Chemical stability: Stable under recommended storage conditions.

Possibility of hazardous reactions:
In case of dust formation (Fine dust): danger of dust explosion

Conditions to avoid: Protect from excessive heat. Keep away from open flames, hot surfaces and sources of ignition.
Avoid dust formation.

Incompatible materials: Strong oxidizing agents, strong acids

Hazardous decomposition products:
In case of fire may be liberated: hydrogen cyanide, carbon monoxide and carbon dioxide (CO2).

Thermal decomposition: approx. 320 °C

11. Toxicological information

Information on toxicological effects

Toxicological effects:

Acute toxicity (oral): Lack of data. No evidence of acute toxicity.

Acute toxicity (dermal): Lack of data.

Acute toxicity (inhalative): Lack of data.

Skin corrosion/irritation: Lack of data. Dust: Can cause skin, eye and respiratory tract irritation.

Eye damage/irritation: Lack of data. Dust: Can cause skin, eye and respiratory tract irritation.

Sensitisation to the respiratory tract: Lack of data. The chemical structure of the polymer does not suggest a specific alert for such an effect.

Skin sensitisation: Lack of data. The chemical structure of the polymer does not suggest a specific alert for such an effect.

Germ cell mutagenicity/Genotoxicity: Lack of data. The chemical structure of the polymer does not suggest a specific alert for such an effect.

Carcinogenicity: Lack of data. No indications of human carcinogenicity exist.

Reproductive toxicity: Lack of data. The chemical structure of the polymer does not suggest a specific alert for such an effect.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data. Dust: Can cause skin, eye and respiratory tract irritation.

Specific target organ toxicity (repeated exposure): Lack of data. Chronic toxic effects are not expected. The product has not been tested. The statement is derived from products of similar structure or composition.

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.

12. Ecological information

Toxicity

Aquatic toxicity: No evidence of aquatic toxicity.

Effects in sewage plants: In sewage treatment plants it may be separated mechanically.

Persistence and degradability

Further details: Biodegradation: Product is biodegradable with difficulty.

Mobility in soil

no data available

Additional ecological information

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

13. Disposal considerations

Waste treatment methods

Product

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.

14. Transport information

USA: Department of Transportation (DOT)

Proper shipping name: Not controlled under DOT

Sea transport (IMDG)

Proper shipping name: Not restricted
Marine pollutant: No

Air transport (IATA)

Proper shipping name: Not restricted

Further information

No dangerous good in sense of these transport regulations.

15. Regulatory information

National regulations - China

No data available

16. Other information

Uses advised against: For toys and childcare articles
Reason of change: General revision (Regulation (EU) No 2015/830)
Date of first version: 24/3/2013

Department issuing data sheet

Contact person: see section 1: Dept. responsible for information

The information in this data sheet has been established to our best knowledge and was up-to-date at time of revision. It does not represent a guarantee for the properties of the product described in terms of the legal warranty regulations.