

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

Product identifier

Trade name: Luran® S VL
This safety data sheet pertains to the following products:
Luran® S VL21
Luran® S VLE
Luran® S VLY
Luran® S VLZ

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

General use: Polymer
For industrial processing only

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
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Emergency telephone number

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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

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: In case of inhalation of decomposition products, affected person should be moved into fresh air and kept still. seek medical attention
- Following skin contact: 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.
- After eye 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.
- After swallowing: Rinse mouth and drink large quantities of water.
Never give an unconscious person anything through the mouth. seek medical attention

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, extinguishing powder, foam, carbon dioxide.

Extinguishing media which must not be used for safety reasons:

Full water jet

Special hazards arising from the substance or mixture

hydrogen cyanide

In case of fire may be liberated: Monomer(s), hydrocarbons, gases/vapours, oligomers, 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

Avoid generation of dust. Remove all sources of ignition.

Take up mechanically. Collect in closed containers for disposal.

Additional information: Special danger of slipping by leaking/spilling product.

7. Handling and storage

Precautions for safe handling

Advices on safe handling: Make sure that the processing machines are well equipped with suction and ventilation systems. Wear protective equipment.

Avoid generation of dust. In the case of the formation of dust: Withdraw by suction. Do not breathe dust.

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 in a well-ventilated place. Keep container tightly closed.

Remove all sources of ignition. Protect against heat /sun rays. Protect from moisture.

Further details: Special danger of slipping by leaking/spilling product.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
100-42-5	Styrene	long-term	8 mg/m ³
		short-term	50 mg/m ³
		short-term	100 mg/m ³
107-13-1	Acrylonitrile	long-term	1 mg/m ³
		short-term	2 mg/m ³
141-32-2	n-Butyl acrylate	long-term	25 mg/m ³

Additional information: The product contains very low levels of residual monomers and process chemicals (styrene, ethylbenzene, acrylonitrile and n-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. apron, boots or chemical protection clothing.

General protection and hygiene measures:

Molten material: Avoid contact with skin.

Work place should be equipped with a shower and an eye rinsing apparatus.

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.

Environmental exposure controls

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

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance: Physical state at 20 °C and 101.3 kPa: solid
Form: granulate
Colour: whitish, natural colors

Odour: weak, characteristic

Odour threshold: not determined

pH value: insoluble

Melting point/freezing point:	> 100 °C (DIN EN ISO 306)
Initial boiling point and boiling range:	not applicable
Flash point/flash point range:	> 400 °C
Evaporation rate:	not applicable
Flammability:	Not highly flammable.
Explosion limits:	no data available
Vapour pressure:	no data available
Vapour density:	not applicable (air)
Density:	approx. 1.07 g/cm ³ (20)
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	approx. 320 °C To avoid thermal decomposition, do not overheat.

Additional information

Viscosity, dynamic:	not applicable
Explosive properties:	Product is not explosive. Dust explosion risk at fine dust
Oxidizing characteristics:	not oxidising
Ignition temperature:	> 400 °C (DIN 51794)

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:	Keep away from sources of ignition and heat. Avoid dust formation.
Incompatible materials:	Strong oxidizing agents
Hazardous decomposition products:	hydrogen cyanide In case of fire may be liberated: Monomer(s), hydrocarbons, gases/vapours, oligomers, carbon monoxide and carbon dioxide (CO ₂).
Thermal decomposition:	approx. 320 °C To avoid thermal decomposition, do not overheat.

11. Toxicological information

Information on toxicological effects

Toxicological effects:	Acute toxicity (oral): Based on available data, the classification criteria are not met. Single exposure: No evidence of acute toxicity. Acute toxicity (dermal): Lack of data. Acute toxicity (inhalative): Lack of data. Skin corrosion/irritation: Based on available data, the classification criteria are not met. not to be expected Eye damage/irritation: Based on available data, the classification criteria are not met. not to be expected Sensitisation to the respiratory tract: Based on available data, the classification criteria are not met. The chemical structure of the polymer does not suggest a specific alert for such an effect. Skin sensitisation: Based on available data, the classification criteria are not met. The chemical structure of the polymer does not suggest a specific alert for such an effect. Germ cell mutagenicity/Genotoxicity: Based on available data, the classification criteria are not met. The chemical structure of the polymer does not suggest a specific alert for such an effect. Carcinogenicity: Based on available data, the classification criteria are not met. No indications of human carcinogenicity exist. Reproductive toxicity: Based on available data, the classification criteria are not met. 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): Based on available data, the classification criteria are not met. not to be expected Specific target organ toxicity (repeated exposure): Based on available data, the classification criteria are not met. The product has not been tested. The statement is derived from products of similar structure or composition. Aspiration hazard: Based on available data, the classification criteria are not met.
Other information:	When handled appropriately, 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 (acute). The product has not been tested.
Effects in sewage plants:	In sewage treatment plants it may be separated mechanically.

Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable. The product is likely to persist in the environment.
The product has not been tested. The statement is derived from products of similar structure or composition.

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



SAFETY DATA SHEET

according to GB/T16483-2008

Luran® S VL

Material number VL0001

Revision date: 3/6/2015

Version: 2

Language: en-CN,SG

Date of print: 25/6/2015

Page: 8 of 8

Reason of change: Changes in section 1: product name

Date of first version: 2/3/2015

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.