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

Product identifier

Trade name: Terluran® ABS Granulate, Natural
This safety data sheet pertains to the following products:
Terluran® BX19000
Terluran® EGP-7
Terluran® GP-22 G4
Terluran® GP-22 Natural
Terluran® GP-25 Natural
Terluran® GP-35 Natural
Terluran® HG-26
Terluran® HI-10 Natural
Terluran® HI-10 Q483
Terluran® HI-10 Q520
Terluran® HI-12 Natural
Terluran® Nano

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
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

Safety precautions: not applicable

Other hazards

Dust: Can cause skin, eye and respiratory tract irritation.
Fine dust: explosive
The melted product can cause severe burns.
Swallowing may cause gastrointestinal irritation and pain of guts.

3. Composition / information on ingredients

Mixtures

Chemical characterization: Polymer mixture:
CAS No. 9003-56-9 Styrene-acrylonitrile-butadiene copolymer

4. First aid measures

General information: Immediately remove any contaminated clothing, shoes or stockings.

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

In case of skin contact: The melted product can cause severe burns.
Do not attempt to remove molten product, or molten product that has cooled, from skin without medical assistance.
After contact with molten product, cool skin area rapidly with cold water. Consult physician.

After eye contact: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Consult an eye specialist in the event of irritation.

After swallowing: Rinse mouth with water. Drink one or two glasses 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, foam, extinguishing powder, carbon dioxide.

Extinguishing media which must not be used for safety reasons:
High power 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 (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: 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 discharge. Keep away from sources of ignition.
Use grounding equipment. Use explosion-proof equipment and non-sparking tools/utensils.
Avoid open flames.
Dust may form explosive mixtures with air.

Storage

Requirements for storerooms and containers:
Store in a well-ventilated place. Keep container tightly closed.
Protect against heat /sun rays. Protect from moisture contamination.

8. Exposure controls/personal protection

Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
	Terluran® ABS Granulate, Natural	USA: ACGIH: TWA	10 mg/m³
		USA: ACGIH: TWA	3 mg/m³
100-42-5	Styrene	USA: ACGIH: STEL	170 mg/m³; 40 ppm
		USA: ACGIH: TWA	85 mg/m³; 20 ppm
107-13-1	Acrylonitrile	USA: ACGIH: TWA	4.3 mg/m³; 2 ppm
106-99-0	1,3-Butadiene	USA: ACGIH: TWA	4.4 mg/m³; 2 ppm

Exposure controls

Provide good ventilation and/or an exhaust system in the work area.
See also information in chapter 7, section storage.

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: Protective gloves against heat according to EN 407.
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.
Do not inhale dust particles or vapours. Keep away from sources of ignition.
Wash hands before breaks and after work.
In case of dust: Particular danger of slipping when spread 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: pellets (solid) Colour: natural colors (whitish)
Odour:	weak, characteristic
Odour threshold:	no data available
pH value:	no data available
Melting point/freezing point:	> 100 °C (DIN EN ISO 306)
Initial boiling point and boiling range:	no data available
Flash point/flash point range:	> 400 °C
Evaporation rate:	no data available
Flammability:	Not highly flammable.
Explosive properties:	Dust explosion risk at fine dust
Explosion limits:	no data available no data available
Vapour pressure:	no data available
Vapour density:	no data available
Density:	at 20 °C: approx. 1.04 g/cm³ (DIN 53479)
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	no data available
Auto-ignition temperature:	not self-igniting
Thermal decomposition:	approx. 300 °C To avoid thermal decomposition, do not overheat.

Additional information

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Oxidizing characteristics:	Oxidising potential: not oxidising
Ignition temperature:	> 400 °C (DIN 51794)
Bulk density:	at 20 °C: approx. 600 kg/m³ (DIN 53466)
Additional information:	no data available

10. Stability and reactivity

Reactivity: no data available

Chemical stability: Stable under recommended storage conditions.

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

Conditions to avoid: Protect from excessive heat. Keep away from sources of ignition and heat.
Avoid dust formation.

Incompatible materials: Strong oxidizing agents

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

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

11. Toxicological information

Information on toxicological effects

Toxicological effects: Acute toxicity (oral): Lack of data.
Acute toxicity (dermal): Lack of data.
Acute toxicity (inhalative): Lack of data.
Skin corrosion/irritation: Lack of data. May cause irritations.
Eye damage/irritation: Lack of data. May cause irritations.
Sensitisation to the respiratory tract: Lack of data. Not to be expected
Skin sensitisation: Lack of data. Not to be expected
Germ cell mutagenicity/Genotoxicity: Lack of data. Not to be expected
Carcinogenicity: Lack of data. Not to be expected
Reproductive toxicity: Lack of data. Not to be expected
Effects on or via lactation: Lack of data.
Specific target organ toxicity (single exposure): Lack of data.
Dusts: Irritating to eyes, respiratory system and skin.
Specific target organ toxicity (repeated exposure): Lack of data.
Aspiration hazard: Lack of data.

Other information:

Styrene: Harmful if inhaled. Causes damage to organs through prolonged or repeated exposure.
lung damages
May be fatal if swallowed and enters airways.
Causes serious eye irritation. Causes skin irritation.

Acrylonitrile: Toxic by inhalation, in contact with skin and if swallowed.
May cause cancer. Suspected of damaging the unborn child.
Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage.

1,3-Butadiene: May cause cancer. May cause genetic defects.

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 not readily biodegradable.
The product is likely to persist in the environment.

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

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 - EC member states

Labelling (67/548/EEC or 1999/45/EC)

Code letter and hazard symbol:
not applicable

R phrase(s): not applicable

S phrase(s): not applicable

16. Other information

Reason of change: Changes in section 1: Changes of product list

Date of first version: 12.02.2013

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.