SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Trade name: Styrolution® PS HIPS

This safety data sheet pertains to the following products:
Styrolution PS 416N
Styrolution PS 454N
Styrolution PS 485N
Styrolution PS 486N
Styrolution PS 495N
Styrolution PS 542N
Styrolution PS 622N
Styrolution PS 641F
Styrolution PS ESCRIMO
Styrolution PS 2610
Styrolution PS Microgranulates 524G

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

General use: Basic material for chemical industry processing

1.3 Details of the supplier of the safety data sheet

Company name: Styrolution GmbH
Street/POB-No.: Erlenstraße 2
Postal Code, city: 60325 Frankfurt
Germany
WWW: www.styrolution.com
E-mail: styrenics.infopoint@styrolution.com
Telephone: +49 (0) 69 50 955 01 200
Dept. responsible for information:
Infopoint, Telephone: +49 (0) 2133 - 51- 4007
E-mail: infopoint.emea@styrolution.com

1.4 Emergency telephone number

Telephone: +44 (0) 1235 239 670

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to EC regulation 1272/2008 (CLP)

This substance is classified as not hazardous.

Classification according to directive 67/548/EEC

This substance is classified as not hazardous.

2.2 Label elements

Labelling (CLP)

Hazard statements: not applicable

Safety precautions: not applicable

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

R phrase(s): not applicable

S phrase(s): not applicable

2.3 Other hazards

Dust: Can cause skin, eye and respiratory tract irritation.
fine dust: explosive
The melted product can cause severe burns.

SECTION 3: Composition / information on ingredients

3.1 Substances

Chemical characterization: polymer
(C8H8,C4H6)x
styrene-butadiene-copolymer, HIPS

CAS-Number: 9003-55-8

EC-number: -

RTECS-Number: WL6478000

SECTION 4: First aid measures

4.1 Description of first aid measures

After 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 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.
Remove contact lenses, if present and easy to do. Continue rinsing.

After swallowing: Do not induce vomiting. Rinse mouth with water.
Drink one or two glasses of water.
Never give an unconscious person anything through the mouth.

4.2 Most important symptoms and effects, both acute and delayed

Dust: Skin irritation, eye irritations and redness

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media:
Water fog, foam.
Only in case of small fires: extinguishing powder, carbon dioxide, Sand, earth.

Extinguishing media which must not be used for safety reasons:
High power water jet

5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: smoke, Styrene-Monomer, butadiene, aldehydes and acids (organic), carbon monoxide and carbon dioxide (CO2).

5.3 Advice for firefighters

Special protective equipment for firefighters:
Wear self-contained breathing apparatus.

Additional information: Hazchem-Code: -

Cool endangered containers with water jetspray.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Dust forms explosive mixtures with air. Remove all sources of ignition.
Provide adequate ventilation. Do not breathe dust. Wear personal protection equipment.

6.2 Environmental precautions

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

6.3 Methods and material for containment and cleaning up

Avoid generation of dust. Take up mechanically. Can be reused without regeneration. Otherwise, dump or burning.

Additional information: Take precautionary measures against static discharge.

Particular danger of slipping when spread on the ground.

6.4 Reference to other sections

Refer additionally to chapter 8 and 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Advices on safe handling: Provide adequate ventilation, and local exhaust as needed.
Avoid dust formation. In the case of the formation of dust: Withdraw by suction.
Molten material: Avoid contact with the substance.

Precautions against fire and explosion:
Dust forms explosive mixtures with air. Take precautionary measures against static discharge. Keep away from sources of ignition. Use grounding equipment. Use explosion-proof equipment and non-sparking tools/utensils.

7.2 Conditions for safe storage, including any incompatibilities

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

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

Storage class: 11 Combustible solids

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values:

CAS No.	Designation	Type	Limit value
9003-55-8	Styrolution® PS HIPS	Great Britain: WEL-TWA	10 mg/m³ Dust limit value inhalable fraction
		Great Britain: WEL-TWA	4 mg/m³ Dust limit value respirable fraction
		Ireland: 8 hours	10 mg/m³ Dust limit value inhalable fraction
		Ireland: 8 hours	4 mg/m³ Dust limit value respirable fraction
100-42-5	Styrene	Great Britain: WEL-STEL	1.080 mg/m³; 250 ppm
		Great Britain: WEL-TWA	430 mg/m³; 100 ppm
		Ireland: 15 minutes	170 mg/m³; 40 ppm
		Ireland: 8 hours	85 mg/m³; 20 ppm
106-99-0	1,3-Butadiene	Great Britain: WEL-TWA	22 mg/m³; 10 ppm (Carc)
		Ireland: 8 hours	2,2 mg/m³; 1 ppm C1, Mut2

8.2 Exposure controls

Provide good ventilation and/or an exhaust system in the work area.

Occupational exposure controls

Respiratory protection:
In case of dust:
Use filter type A-P1 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.

General protection and hygiene measures:
Do not breathe dust.
Take off immediately all contaminated clothing.
When using do not eat, drink or smoke.
Wash hands before breaks and after work.
Eye wash facility must be provided.
In case of dust: Particular danger of slipping when spread on the ground.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state:	solid, pellets
Colour:	colourless
Odour:	weak
Flash point/flash point range:	> 280 °C
Flammability:	Not highly flammable.
Ignition temperature:	approx. > 400 °C
Autoflammability:	not self-igniting

Density:	at 20 °C approx. 1030 kg/m³ (ISO 1183)
Bulk density:	approx. 600 g/cm³
Water solubility:	insoluble

9.2 Other information

No data available

SECTION 10: Stability and reactivity

10.1 Reactivity

refer to 10.3

10.2 Chemical stability

Product is stable under normal storage conditions.

10.3 Possibility of hazardous reactions

In case of dust (Fine dust): danger of dust explosion

10.4 Conditions to avoid

Avoid dust formation. Dust forms explosive mixtures with air.
Keep away from sources of ignition. - No smoking.

10.5 Incompatible materials

Strong oxidizing agents

10.6 Hazardous decomposition products

In case of fire may be liberated: smoke, Styrene-Monomer, butadiene, aldehydes and acids (organic), carbon monoxide and carbon dioxide (CO2).

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute toxicity:
LD50 oral: > 2.000 mg/kg
LD50 dermal: > 2.000 mg/kg

Toxicological effects: Acute toxicity (oral): Based on available data, the classification criteria are not met. Mild acute toxicity

Acute toxicity (dermal): Based on available data, the classification criteria are not met. Mild acute toxicity

Acute toxicity (inhalative): Lack of data. Mild acute toxicity. May cause irritations.

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.

Skin sensitisation: Based on available data, the classification criteria are not met. Not sensitising

Germ cell mutagenicity/Genotoxicity: Lack of data.

Carcinogenicity: Lack of data. Carcinogen Status: IARC Rating: 3

Reproductive toxicity: Lack of data.

Effects on or via lactation: Lack of data.

Specific target organ toxicity (single exposure): Lack of data.

Specific target organ toxicity (repeated exposure): Lack of data.

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.

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.

Symptoms

Dust: Skin irritation, eye irritations and redness
The melted product can cause severe burns.

Thermal treatment, Processing:
Irritating to eyes, respiratory system and skin.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity: no evidence of aquatic toxicity

Water Hazard Class: nwg = non-hazardous to water (WGK catalog number 766)

12.2. Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable.
Degradation at UV-radiation/sunlight
Environmental half-life period: >=100 days (estimated)

Effects in sewage plants: Not toxic to sewage organisms
In sewage treatment plants it may be separated mechanically.

12.3 Bioaccumulative potential

To avoid bioaccumulation plastics should not be disposed in the sea or in other water environments.

12.4 Mobility in soil

Product is not soluble in water.
Substance is heavier than water and sinks.
mobility in soil: low

12.5 Results of PBT and vPvB assessment

This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6 Other adverse effects

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

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Product

Waste key number: 07 02 13 = wastes from the MFSU of plastics, synthetic rubber and man-made fibres
Recommendation: Dispose of waste according to applicable legislation.

Contaminated packaging

Waste key number: 15 01 02 = Plastic packaging
Recommendation: Dispose of waste according to applicable legislation.

SECTION 14: Transport information

14.1 UN number

not applicable

14.2 UN proper shipping name

ADR/RID, IMDG, IATA: Not restricted

14.3 Transport hazard class(es)

not applicable

14.4 Packing group

not applicable

14.5 Environmental hazards

Marine pollutant - IMDG: No

14.6 Special precautions for user

No dangerous good in sense of these transport regulations.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

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

National regulations - Great Britain

Hazchem-Code: -

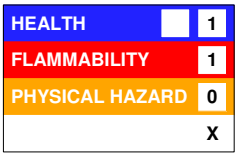
National regulations - USA

TSCA Inventory: listed; EPA flags XU
TSCA HPVC: not listed
Carcinogen Status:
IARC Rating: Group 3
OSHA Carcinogen: not listed
NTP Rating: not listed

Hazard rating systems:

NFPA Hazard Rating:
Health: 1 (Slight)
Fire: 1 (Slight)
Reactivity: 0 (Minimal)

HMIS Version III Rating:
Health: 1 (Slight)
Flammability: 1 (Slight)
Physical Hazard: 0 (Minimal)
Personal Protection: X = Consult your supervisor



15.2 Chemical Safety Assessment

For this substance a chemical safety assessment is not required.

SECTION 16: Other information

Further information

Reason of change: Changes in section 1: Changes of product list (+ Microganulates 524G)
Date of first version: 08.08.2012

Department issuing data sheet

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

For abbreviations and acronyms, see: ECHA Guidance on information requirements and chemical safety assessment, chapter R.20 (Table of terms and abbreviations).

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.