



## SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006 (REACH)  
and Regulation (EU) No 2015/830

Revision date: 11/12/2015  
Version: 11  
Language: en-SG  
Date of print: 18/12/2015

**Styroflex®**

Product number STY004

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

#### 1.1 Product identifier

Trade name: Styroflex®  
This safety data sheet pertains to the following products:  
Styroflex® 2G66

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

General use: Polymer  
For industrial processing only

#### 1.3 Details of the supplier of the safety data sheet

Company name: INEOS Styrolution APAC 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

#### 1.4 Emergency telephone number

Telephone: + 65 (0) 3158 - 1074

### SECTION 2: Hazards identification

#### 2.1 Classification of the substance or mixture

**Classification according to EC regulation 1272/2008 (CLP)**  
This mixture is classified as not hazardous.

#### 2.2 Label elements

##### Labelling (CLP)

Hazard statements: not applicable

Precautionary statements: 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.  
Swallowing may cause gastrointestinal irritation and pain of guts.

## SECTION 3: Composition / information on ingredients

3.1 Substances: not applicable

### 3.2 Mixtures

Chemical characterisation: Polystyrene mixture contains:

CAS No. 9003-55-8: Styrene-butadiene-copolymer

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

## SECTION 4: First aid measures

### 4.1 Description of 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.  
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: 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

### 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.  
Decontamination, vital functions

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media

Suitable extinguishing media:

Water fog, foam, extinguishing powder, carbon dioxide (CO<sub>2</sub>).

Extinguishing media which must not be used for safety reasons:

Full water jet

### 5.2 Special hazards arising from the substance or mixture

In case of fire may be liberated: smoke, carbon monoxide and carbon dioxide (CO<sub>2</sub>).

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

### 5.3 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.

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation.

Wear personal protection equipment. Do not breathe dust.

### 6.2 Environmental precautions

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

### 6.3 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: Special danger of slipping by leaking/spilling product.

### 6.4 Reference to other sections

Refer additionally to section 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. 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

### 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.

Storage class: 11 = Combustible solids

### 7.3 Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

Additional information: The product contains very low levels of residual monomers and process chemicals (styrene, ethylbenzene and butadiene) 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.

## 8.2 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.

## 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.

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.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance:	Form: solid, granulate Colour: colourless, clear
Odour:	weak, characteristic
Odour threshold:	no data available
pH value:	no data available
Melting point/freezing point:	> 35 °C (DIN EN ISO 306)
Initial boiling point and boiling range:	no data available
Flash point/flash point range:	> 285 °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:	at 20 °C: approx. 1.00 g/cm <sup>3</sup> (DIN 53479)
Water solubility:	insoluble
Partition coefficient: n-octanol/water:	not applicable

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Auto-ignition temperature: not self-igniting  
Thermal decomposition: approx. 300 °C  
Viscosity, kinematic: no data available  
Explosive properties: Dust explosion risk at fine dust  
Oxidizing characteristics: Not oxidising

**9.2 Other information**

Ignition temperature: > 400 °C (DIN 51794)  
Bulk density: at 20 °C: approx. 600 kg/m<sup>3</sup> (DIN 53466)

**SECTION 10: Stability and reactivity**

**10.1 Reactivity**

refer to 10.3

**10.2 Chemical stability**

Stable under recommended storage conditions.

**10.3 Possibility of hazardous reactions**

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

**10.4 Conditions to avoid**

Keep away from open flames, hot surfaces and sources of ignition.  
Avoid dust formation.

**10.5 Incompatible materials**

strong oxidizing agents

**10.6 Hazardous decomposition products**

Thermal decomposition: In case of fire may be liberated: smoke, carbon monoxide and carbon dioxide (CO<sub>2</sub>).  
approx. 300 °C

## SECTION 11: Toxicological information

### 11.1 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. not to be expected Eye damage/irritation: Lack of data. not to be expected Sensitisation to the respiratory tract: Lack of data. 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. 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. not to be expected Aspiration hazard: Lack of data.
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.

## SECTION 12: Ecological information

### 12.1 Toxicity

Aquatic toxicity: no evidence of aquatic toxicity

### 12.2. Persistence and degradability

Further details: Biodegradation: Product is not readily biodegradable.  
The product is likely to persist in the environment.

Effects in sewage plants: 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.

Partition coefficient: n-octanol/water:  
not applicable

### 12.4 Mobility in soil

no data available

## 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 enter into ground-water, surface water or drains.

# SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

### Product

Waste key number: 07 02 99 = wastes from the MFSU of plastics, synthetic rubber and man-made fibres  
MFSU = manufacture, formulation, supply and use

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.

# SECTION 14: Transport information

## 14.1 UN number

ADR/RID, IMDG, IATA-DGR:  
not applicable

## 14.2 UN proper shipping name

ADR/RID, IMDG, IATA-DGR:  
Not restricted

## 14.3 Transport hazard class(es)

ADR/RID, IMDG, IATA-DGR:  
not applicable

## 14.4 Packing group

ADR/RID, IMDG, IATA-DGR:  
not applicable

## 14.5 Environmental hazards

Marine pollutant: 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



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### SECTION 15: Regulatory information

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

##### National regulations - Korea

Industrial Safety and Health Act

not applicable

Chemicals Control Act

not applicable

#### 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: Company name

General revision

Date of first version: 7/11/2012

#### 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.