



Friday, 23 May 2014

To Whom It May Concern,

The following documents are the safety data sheets for the underlying polymer used in 3Doodler **ABS** plastic strands. These polymers are subsequently processed in the USA to create our 3Doodler plastic strands.

The 3Doodler is for adult use only and is not suitable for children. Please refer to the 3Doodler User Guide included with the 3Doodler (or available at [www.the3doodler.com/manuals](http://www.the3doodler.com/manuals)) for instructions relating to use of the 3Doodler, 3Doodler plastic strands, and any related safety warnings.

The 3Doodler should only be used with plastic strands approved by us. Misuse of your 3Doodler, setting your pen to the wrong heating temperature, and/or use of non-approved plastics or other materials may result in damage to your pen or injury to you, and will void your warranty.

Yours sincerely,

WobbleWorks

**POLYLAC® ABS Granulate****SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name: POLYLAC® ABS Granulate, PA-747

**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:	CHI MEI CORPORATION
Address :	59-1 Sanjia, Rende District, Tainan City 71702 Taiwan, ROC
Website :	<a href="http://www.chimeicorp.com/en-us/">http://www.chimeicorp.com/en-us/</a>
Information Phone No.	886-6-2663000 Ext.1361 (Market & Business Development)
Emergency Phone No.	886-6-2663000 Ext.1361 (Market & Business Development)
Fax No.	886-6-2667981
E-mail:	<a href="mailto:service@mail.chimei.com.tw">service@mail.chimei.com.tw</a>

**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.

**Classification according to Directive 67/548/EEC or 1999/45/EC**

This preparation 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.

Swallowing may cause gastrointestinal irritation and pain of guts.

**POLYLAC® ABS Granulate****SECTION 3: Composition / information on ingredients**

Substance or Preparation	Substance
Chemical Name	Acrylonitrile-Butadiene-Styrene Copolymer
Content	> 98 % (Additives $\leq$ 2 %)
Formula	(C <sub>3</sub> H <sub>3</sub> N, C <sub>4</sub> H <sub>6</sub> , C <sub>8</sub> H <sub>8</sub> ) <sub>x</sub>
CAS No.	9003-56-9
Impurities Contributing to Hazard	None

**SECTION 4: First aid measures****4.1 Description of 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:	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

**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

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: hydrogen cyanide, carbon monoxide and carbon dioxide (CO<sub>2</sub>).

In case of dust (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: Hazchem-Code: -

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

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.

## 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. 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.

## 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. Protect from moisture contamination.

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
POLYLAC® ABS Granulate	Great Britain: WEL-TWA	10 mg/m <sup>3</sup>
	Great Britain: WEL-TWA	4 mg/m <sup>3</sup>
	Ireland: 8 hours	10 mg/m <sup>3</sup>
	Ireland: 8 hours	4 mg/m <sup>3</sup>
100-42-5 Styrene	Great Britain: WEL-STEL	1080 mg/m <sup>3</sup> ; 250 ppm
	Great Britain: WEL-TWA	430 mg/m <sup>3</sup> ; 100 ppm
	Ireland: 15 minutes	170 mg/m <sup>3</sup> ; 40 ppm
	Ireland: 8 hours	85 mg/m <sup>3</sup> ; 20 ppm
107-13-1 Acrylonitrile	Great Britain: WEL-TWA	4.4 mg/m <sup>3</sup> ; 2 ppm
	Ireland: 8 hours	4.5 mg/m <sup>3</sup> ; 2 ppm
106-99-0 1,3-Butadiene	Great Britain: WEL-TWA	22 mg/m <sup>3</sup> ; 10 ppm
	Ireland: 8 hours	2.2 mg/m <sup>3</sup> ; 1 ppm

### 8.2 Exposure controls

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

#### 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:

**POLYLAC® ABS Granulate**

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.

**SECTION 9: Physical and chemical properties****9.1 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
Vapour pressure:	no data available
Vapour density:	no data available
Density:	at 20 °C: approx. 1.04 g/cm <sup>3</sup> (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.
Viscosity, dynamic:	no data available
Explosive properties:	no data available
Oxidizing characteristics:	Oxidising potential: 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)
Additional information:	no data available

## 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 (Fine dust): danger of dust explosion

### 10.4 Conditions to avoid

Protect from excessive heat. Keep away from sources of ignition and heat.

Avoid dust formation.

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

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

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

## 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. 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.

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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.

**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:

no data available

**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.



**POLYLAC® ABS Granulate****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**

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: 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

## POLYLAC® ABS Granulate



## 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

<p>Hazard rating systems:</p> 	<p>NFPA Hazard Rating:</p> <p>Health: 1 (Slight)</p> <p>Fire: 1 (Slight)</p> <p>Reactivity: 0 (Minimal)</p>
	<p>HMIS Version III Rating:</p> <p>Health: 1 (Slight)</p> <p>Flammability: 1 (Slight)</p> <p>Physical Hazard: 0 (Minimal)</p> <p>Personal Protection: X = Consult your supervisor</p>

## 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

Date of first version: 30.01.2013

## 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

**Terluran® ABS Granulate, Natural**

Material number TER003

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1 Product identifier**

Trade name: Terluran® ABS Granulate, Natural  
This safety data sheet pertains to the following products:  
Terluran® GP-22 Natural  
Terluran® GP-35 Natural  
Terluran® HI-10 Natural  
Terluran® HI-10 Q520  
Terluran® SP-6 Natural

**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: Styrolution Group GmbH  
Street/POB-No.: Erlenstraße 2  
Postal Code, city: 60325 Frankfurt  
Germany  
WWW: [www.styrolution.com](http://www.styrolution.com)  
Dept. responsible for information:  
Infopoint, Telephone: +49 (0) 2133 - 51- 4007  
E-mail: [infopoint.emea@styrolution.com](mailto: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 mixture is classified as not hazardous.

**Classification according to Directive 67/548/EEC or 1999/45/EC**

This preparation 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

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**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 characterization: Polymer mixture:

CAS No. 9003-56-9: &gt; 98 % Styrene-acrylonitrile-butadiene copolymer

CAS No. 100-42-5: &lt; 0,1 % Styrene

**SECTION 4: First aid measures****4.1 Description of 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

**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.

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: hydrogen cyanide, carbon monoxide and carbon dioxide (CO<sub>2</sub>).

In case of dust (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.

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Additional information:

Hazchem-Code: -

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**

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.

**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. 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.

**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. Protect from moisture contamination.

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
	Terluran® ABS Granulate, Natural	Great Britain: WEL-TWA	10 mg/m <sup>3</sup>
		Great Britain: WEL-TWA	4 mg/m <sup>3</sup>
		Ireland: 8 hours	10 mg/m <sup>3</sup>
		Ireland: 8 hours	4 mg/m <sup>3</sup>
100-42-5	Styrene	Great Britain: WEL-STEL	1080 mg/m <sup>3</sup> ; 250 ppm
		Great Britain: WEL-TWA	430 mg/m <sup>3</sup> ; 100 ppm
		Ireland: 15 minutes	170 mg/m <sup>3</sup> ; 40 ppm
		Ireland: 8 hours	85 mg/m <sup>3</sup> ; 20 ppm
107-13-1	Acrylonitrile	Great Britain: WEL-TWA	4.4 mg/m <sup>3</sup> ; 2 ppm
		Ireland: 8 hours	4.5 mg/m <sup>3</sup> ; 2 ppm
106-99-0	1,3-Butadiene	Great Britain: WEL-TWA	22 mg/m <sup>3</sup> ; 10 ppm
		Ireland: 8 hours	2.2 mg/m <sup>3</sup> ; 1 ppm

### 8.2 Exposure controls

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

#### 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: &gt;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.

## SECTION 9: Physical and chemical properties

### 9.1 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

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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/cm <sup>3</sup> (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.
Viscosity, dynamic:	no data available
Explosive properties:	no data available
Oxidizing characteristics:	Oxidising potential: 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)
Additional information:	no data available

**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 (Fine dust): danger of dust explosion

**10.4 Conditions to avoid**Protect from excessive heat. Keep away from sources of ignition and heat.  
Avoid dust formation.**10.5 Incompatible materials**

Strong oxidizing agents

**10.6 Hazardous decomposition products**

Thermal decomposition:	In case of fire may be liberated: hydrogen cyanide, carbon monoxide and carbon dioxide (CO <sub>2</sub> ). approx. 300 °C To avoid thermal decomposition, do not overheat.
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## 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. 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.

## 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.



**Terluran® ABS Granulate, Natural**

Material number TER003

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**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:

no data available

**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**

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:

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**

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

HEALTH	1
FLAMMABILITY	1
PHYSICAL HAZARD	0
	X

**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

Date of first version: 30.01.2013

**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.