

# SAFETY DATA SHEET

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Compilation date: 21/10/2014

Revision No: 2

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

### 1.1. Product identifier

**Product name:** Polyester Resin

**Product codes:** PF100/PF100E/PF2000

**Synonyms:** UNSATURATED POLYESTER RESIN IN STYRENE

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

**Use of substance / mixture:** synthetic resins hardened through polymerisation.

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

**Company name:** Polyfibre UK Ltd

Wainwright St

Aston Birming-

ham B6 5TJ

**Tel:** +44 (0) 121 327 2360

**Email:** [info@polyfibre.co.uk](mailto:info@polyfibre.co.uk)

### 1.4. Emergency telephone number

**Emergency tel:** +44 (0) 77 57 00 06 74

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

**Classification under CHIP:** -: R10; Xn: R20; Xi: R36/37/38; Xn: R48/20

**Classification under CLP:** Flam. Liq. 3: H226; Skin Irrit. 2: H315; STOT SE 3: H335; Eye Irrit. 2: H319; STOT RE 1: H372; -: EUH208

**Most important adverse effects:** Flammable. Harmful by inhalation. Irritating to eyes, respiratory system and skin.  
Harmful: danger of serious damage to health by prolonged exposure through inhalation.

### 2.2. Label elements

#### Label elements under CLP:

**Hazard statements:** EUH208: Contains cobalt 10% rm. May produce an allergic reaction.

H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

[cont...]

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H335: May cause respiratory irritation.

H372: Causes damage to organs through prolonged or repeated exposure.

**Signal words:** Danger

**Hazard pictograms:** GHS02: Flame

GHS07: Exclamation mark

GHS08: Health hazard



**Precautionary statements:** P280: Wear.

P303+361+353: IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with.

P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P314: Get medical if you feel unwell.

P370+378: In case of fire: Use for extinction.

**Label elements under CHIP:**

**Hazard symbols:** Harmful.



**Risk phrases:** R10: Flammable.

R20: Harmful by inhalation.

R36/37/38: Irritating to eyes, respiratory system and skin.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

**Safety phrases:** S23: Do not breathe fumes.

S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.

S36: Wear suitable protective clothing.

S60: This material and its container must be disposed of as hazardous waste.

**Precautionary phrases:** Contains cobalt 10% rm. May produce an allergic reaction.

## 2.3. Other hazards

**Other hazards:** In use, may form flammable / explosive vapour-air mixture.

**PBT:** This product is not identified as a PBT/vPvB substance.

## Section 3: Composition/information on ingredients

[cont...]

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## 3.2. Mixtures

### Hazardous ingredients:

STYRENE CLP DATA - REACH registered number(s): 01-2119457861-32-0000

EINECS	CAS	CHIP Classification	CLP Classification	Percent
202-851-5	100-42-5	-: R10; Xn: R20; Xi: R36/37/38; Xn: R48/20; Xn: R65	Flam. Liq. 3: H226; Acute Tox. 4: H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315; STOT SE 3: H335; STOT RE 1: H372; Asp. Tox. 1: H304	30-50%

COBALT 10% RM

205-250-6	136-52-7	Sens.: R43; N: R50/53; Xn: R65	Asp. Tox. 1: H304; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Skin Sens. 1: H317	<2%
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-	-	-: R10; Xi: R37; N: R51/53; -: R66; -: R67	-	<2%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Remove all contaminated clothes and footwear immediately unless stuck to skin.  
Wash immediately with plenty of soap and water.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Wash out mouth with water. Consult a doctor. Do not induce vomiting.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor. If unconscious and breathing is OK, place in the recovery position. Move to fresh air in case of accidental inhalation of vapours.

### 4.2. Most important symptoms and effects, both acute and delayed

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.  
Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

### 4.3. Indication of any immediate medical attention and special treatment needed

**Immediate / special treatment:** Eye bathing equipment should be available on the premises. Note to Doctor: In the case of swallowing with subsequent vomiting aspiration of the lungs can occur which can lead to chemical pneumonia or asphyxiation

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## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Alcohol resistant foam. Water spray. Carbon dioxide. Dry chemical powder. Use water spray to cool containers.

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

**Exposure hazards:** Flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for disposal by an appropriate method. Do not use equipment in clean-up procedure which may produce sparks.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS. Refer to section 13 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. Do not handle in a confined space. Avoid the formation or spread of mists in the air. Smoking is forbidden. Use non-sparking tools.

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition.

**Suitable packaging:** Do not use brass, copper, copper alloys

[cont...]

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## 7.3. Specific end use(s)

Specific end use(s): No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

Hazardous ingredients:

#### STYRENE CLP DATA

Workplace exposure limits:

Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	430 mg/m <sup>3</sup>	1080 mg/m <sup>3</sup>	-	-

### DNEL/PNEC Values

DNEL / PNEC No data available.

### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

**Respiratory protection:** Self-contained breathing apparatus must be available in case of emergency.  
Gas/vapour filter, type A: organic vapours (EN141).

**Hand protection:** Protective gloves.

**Eye protection:** Safety glasses. Ensure eye bath is to hand.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Translucent Blue

**Odour:** Characteristic odour

**Solubility in water:** Insoluble

**Viscosity:** Highly viscous

**Flammability limits %: lower:** 1.1

**upper:** 6.1

**Flash point °C:** 31

**Part.coeff. n-octanol/water:** 2.96

**Autoflammability °C:** 490

**Vapour pressure:** 6.7 hPa

### 9.2. Other information

**Other information:** viscosity\* = 175 cps

## Section 10: Stability and reactivity

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## 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

## 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions. Stable at room temperature.

## 10.3. Possibility of hazardous reactions

**Hazardous reactions:** Hazardous reactions will not occur under normal transport or storage conditions.  
Decomposition may occur on exposure to conditions or materials listed below.

## 10.4. Conditions to avoid

**Conditions to avoid:** Heat. Hot surfaces. Sources of ignition. Flames.

## 10.5. Incompatible materials

**Materials to avoid:** Strong acids. Oxidising agents. Peroxides.

## 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	5000	mg/kg

#### Hazardous ingredients:

#### STYRENE CLP DATA

IVN	MUS	LD50	90	mg/kg
ORL	MUS	LD50	316	mg/kg
ORL	RAT	LD50	2650	mg/kg

#### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH	Hazardous: calculated
Irritation	OPT INH DRM	Hazardous: calculated
Repeated dose toxicity	INH	Hazardous: calculated

## Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness. The eyes may water profusely.

**Ingestion:** There may be soreness and redness of the mouth and throat.

[cont...]

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**Inhalation:** There may be irritation of the throat with a feeling of tightness in the chest.  
Exposure may cause coughing or wheezing.

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity values:

Species	Test	Value	Units
FISH	48H EC50	4.02	mg/l
Daphnia magna	48H EC50	4.7	mg/l
ALGAE	72H ErC50	>4.9	mg/l

### 12.2. Persistence and degradability

**Persistence and degradability:** Biodegradable.

### 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No bioaccumulation potential.

### 12.4. Mobility in soil

**Mobility:** Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

**PBT identification:** This product is not identified as a PBT/vPvB substance.

### 12.6. Other adverse effects

**Other adverse effects:** Harmful to aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Transfer to a suitable container and arrange for collection by specialised disposal company.

**Disposal of packaging:** Arrange for collection by specialised disposal company.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1866

### 14.2. UN proper shipping name

**Shipping name:** RESIN SOLUTION

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## 14.3. Transport hazard class(es)

Transport class: 3

## 14.4. Packing group

Packing group: III

## 14.5. Environmental hazards

Environmentally hazardous: No

Marine pollutant: No

## 14.6. Special precautions for user

Special precautions: No special precautions.

Tunnel code: D/E

Transport category: 3

## Section 15: Regulatory information

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

### 15.2. Chemical Safety Assessment

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

\* indicates text in the SDS which has changed since the last revision.

**Phrases used in s.2 and s.3:** EUH208: Contains <name of sensitising substance>. May produce an allergic reaction.

H226: Flammable liquid and vapour.

H304: May be fatal if swallowed and enters airways.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

H372: Causes damage to organs <or state all organs affected, if known> through prolonged or repeated exposure <state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard>.

H400: Very toxic to aquatic life.

H410: Very toxic to aquatic life with long lasting effects.

R10: Flammable.

R20: Harmful by inhalation.

R36/37/38: Irritating to eyes, respiratory system and skin.

[cont...]



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R37: Irritating to respiratory system.

R43: May cause sensitisation by skin contact.

R48/20: Harmful: danger of serious damage to health by prolonged exposure through inhalation.

R50/53: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R65: Harmful: may cause lung damage if swallowed.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

**Legend to abbreviations:** PNEC = predicted no effect level

DNEL = derived no effect level

LD50 = median lethal dose

LC50 = median lethal concentration

EC50 = median effective concentration

IC50 = median inhibitory concentration

dw = dry weight

bw = body weight

cc = closed cup

oc = open cup

MUS = mouse

GPG = guinea pig

RBT = rabbit

HAM = hamster

HMN = human

MAM = mammal

PGN = pigeon

IVN = intravenous

SCU = subcutaneous

SKN = skin

DRM = dermal

OCC = ocular

PCP = physico-chemical properties

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

