



SAFETY DATA SHEET

Wirelock resin



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

Date issued 22.04.2008
Revision date 26.03.2012

1.1. Product identifier

Product name Wirelock resin

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

Use of the substance/preparation Cast material for socket. 2 - component product. Packing sizes of 100, 250, 500, 1000 and 2000 cm³ which give standard solutions.

1.3. Details of the supplier of the safety data sheet

Manufacturer

Company name Millfield Enterprises Limited
Office address 16 Shelley Road
Postal address Newburn Industrial Estate
Postcode Newburn
City Newcastle Upon Tyne NE15 9RT
Country England
Tel +44 (0)191 264 8541
E-mail enquiries@wirelock.com
Website <http://www.millfield-group.co.uk/wirelock/index.htm>

Downstream user

Company name Parker Scanrope AS
Office address Banebakken 38
Postal address Postboks 295
Postcode 3101
City Tønsberg
Country Norway
Tel +47 33 35 55 00
Fax +47 33 35 55 01
E-mail caroline.langkaas@parker.com
Website <http://www.scanrope.no>
Enterprise no. 951351032

1.4. Emergency telephone number

Emergency telephone Norwegian Poisons Information:+47 22 59 13 00

SECTION 2: Hazards identification

2.1. Classification of substance or mixture

Classification according to C; R34
67/548/EEC or 1999/45/EC Xn; R20/22
R42/43
R10

Substance / mixture hazardous properties Flammable. Harmful by inhalation. Harmful if swallowed. Causes burns. May cause sensitisation by inhalation and skin contact.

2.2. Label elements

Hazard symbol



Corrosive

R-phrases	R10 Flammable. R20 Harmful by inhalation. R22 Harmful if swallowed. R34 Causes burns. R42/43 May cause sensitization by inhalation and skin contact.
S-phrases	S45 In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). S23 Do not breathe vapour. S26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. S37/39 Wear suitable gloves and eye/face protection. S38 In case of insufficient ventilation, wear suitable respiratory equipment.
Composition on the label	Maleic anhydride:10 - 30 %, Styrene:30 - 60 %

2.3. Other hazards

Description of hazard	Contact with mixed product, see also Safety Data Sheets for Wirelock Solid.
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SECTION 3: Composition/information on ingredients

3.2. Mixtures

Substance	Identification	Classification	Contents
Maleic anhydride	CAS no.: 108-31-6 EC no.: 203-571-6 Index no.: 607-096-00-9 Synonyms: Maleic anhydride	C; R34 Xn; R22 R42/43 Acute tox. 4; H302 Skin Corr. 1B; H314 Resp. Sens. 1; H334 Skin Sens. 1; H317	10 - 30 %
Styrene	CAS no.: 100-42-5 EC no.: 202-851-5 Index no.: 601-026-00-0 Synonyms: Styrene	R10 Xn; R20 Xi; R36/38 Flam. Liq. 3; H226 Acute tox. 4; H332 Eye Irrit. 2; H319 Skin Irrit. 2; H315 Note : D	30 - 60 %
Substance comments	Novatech has received exact information about the product composition from a foreign supplier. This information is valued by complementing this data sheet, but not quoted in its entirety. The full text for all R-phrases are displayed in section 16.		

SECTION 4: First aid measures

4.1. Description of first aid measures

General	By overexposure / discomfort: Remove patient from exposure as soon as possible. Provide rest, warmth and fresh air. Place unconscious person on the side in the recovery position and ensure breathing. If not breathing, give
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	artificial respiration.
Inhalation	Provide rest, warmth and fresh air. By signs of unconsciousness or discomfort, seek medical attention. See also "General".
Skin contact	Remove contaminated clothing, watches etc. Wash skin thoroughly with soap and water. Rinse well after washing. Replace lost humidity in the skin with a fat cream for skin. Seek medical help if the irritation persists.
Eye contact	Irrigate immediately copiously with clean, fresh water for at least 10-15 minutes holding eyelids apart. Let the water flush in a smooth shower. If symptoms persist, seek medical attention.
Ingestion	DO NOT INDUCE VOMITING! Give 1-2 glasses of water or rather milk if the patient is fully conscious. Never give anything by mouth to an unconscious person. Seek medical advice.

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

Information for health personnel	By ingestion of such large quantities that there is a risk of systemic effects, gastric lavage should be performed, if necessary after intubation, due to risk of aspiration. Medical examinations: General
Acute symptoms and effects	Inhalation: Headache, dizziness, fatigue, nausea, unconsciousness. Skin contact: Chemical burns. Eye: Chemical burns. Ingestion: nausea, vomiting, diarrhea, dizziness, apathy.
Delayed symptoms and effects	May cause sensitization by inhalation and skin contact. May be toxic to the central nerve system (CNS).

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

Other Information	Not specified.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Carbon dioxide (CO ₂), foam, powder.
Improper extinguishing media	Do not use strong water jet. This can cause splashes of burning material.

5.2. Special hazards arising from the substance or mixture

Fire and explosion hazards	Flammable. Vapours are heavier than air, and may disperse along the ground to sources of ignition. Vapours can form explosive mixtures with air.
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5.3. Advice for firefighters

Personal protective equipment	Use fresh air mask and full protective gear when the product is involved in fire.
Other Information	Avoid supplying the fire with oxygen if possible. Move the endangered containers if it is without risk of the personnel. Use water mist for cooling of the containers and the surroundings. Fight fire from protected position. Poisonous combustion products can be formed in a fire.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal protection measures	Eliminate all ignition sources! Ensure good ventilation and use appropriate personal protective equipment (See Section 8). Prevent from entering sewers or confined spaces due to explosion hazard. Keep the public away.
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6.2. Environmental precautions

Environmental precautionary measures	Prevent discharge into water sources, sewage and the environment in general.
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6.3. Methods and material for containment and cleaning up

Cleaning method	<p>Stop leak if possible without risk to personnel. Contaminated material should be absorbed in an inert non-combustible material.</p> <p>The collected material are to be stored in closed containers, labelled and disposed of according to regulations in section 13.</p> <p>Small spillage is to be wiped off with a cloth/paper. Throw these away in a non-combustible container or let them release the vapour on a safe place.</p> <p>Clean the area thoroughly with detergent and water.</p>
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6.4. Reference to other sections

Other instructions	See Sections 8 and 13 for the use of protective equipment and handling of waste.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling	<p>Eliminate all ignition sources. No smoking! Avoid inhalation and contact with skin and eyes, use specified protective equipment. Solvents can be harmful to use if you do not provide adequate ventilation and use proper protective equipment when necessary. Use mechanical ventilation or local exhaust ventilation to reduce exposure via air. Keep container closed when not in use.</p>
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7.2. Conditions for safe storage, including any incompatibilities

Storage	Store in a cool, dry, well ventilated area and closed containers. Keep away from oxidizing materials, heat, sunlight, sparks and flames.
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7.3. Specific end use(s)

Specific use(s)	Casting material for socket. 2-component product. Mix with Wirelock solid.
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SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Occupational Exposure limit values

Substance	Identification	Value	TWA Year
Maleic anhydride	CAS no.: 108-31-6	8-hour TWA: 0,8 mg/m ³ ; A	2007
Styrene	CAS no.: 100-42-5	8-hour TWA: 105 mg/m ³ ; M	2007

8.2. Exposure controls

Limitation of exposure on workplace	Ensure good hygiene. Remove contaminated clothing. Do not put cloth, twist ball or the like which are soaked with the product in your pocket. Eye wash should be available. Ensure good ventilation.
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Respiratory protection

Respiratory protection	Wear mask or respirator AX/P2 if risk of inhalation of high concentrations of vapor or dust. In case of insufficient supply of oxygen an air-supplied full-mask must be used.
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Hand protection

Hand protection	Wear protective gloves (according to standard EN 374) of Teflon or EVOH if risk of direct skin contact. Contact and consult with the gloves supplier regarding breakthrough time etc.
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Eye / face protection

Eye protection	Wear tight-fitting goggles or face shield when risk of splashing / vapor formation. Glasses should never be put on or taken off with work gloves on the hands due to risk of spillage on the skin.
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Skin protection

Skin protection (except hands)	Wear long-sleeved clothing to protect against possible skin contact.
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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	Liquid
Colour	Clear
Odour	Styrene
Comments, Melting point / melting range	Not known
Boiling point / boiling range	Value: 145 °C
Comments, Boiling point / boiling range	(styrene)
Flash point	Value: 31 °C Method of testing: (CC-closed cup)
Specific gravity	Value: 1.75 g/ml
Solubility in water	Insoluble
Solubility in fat	Soluble in most organic løsemidler

Physical hazards

Explosive properties	Not known
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9.2. Other information

Other physical and chemical properties

Comments	Not specified.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No hazardous reactions known if used as intended.
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10.2. Chemical stability

Stability	Normally stable, but see section 10.4.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	No hazardous reactions known if used as intended.
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10.4. Conditions to avoid

Conditions to avoid	Do not use Wirelock together with stainless steel in marine environment. Avoid exposure to UV radiation since they can initiate slow polymerisation, which can continue in a closed container.
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10.5. Incompatible materials

Materials to avoid	Reacts with oxidizing agents, amines, acids and metal salts as these can promote polymerization.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Strong heating or fire can provide products such as carbon dioxide (displacing oxygen), carbon monoxide (toxic, highly flammable) and possibly sticking smoke.
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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Other information regarding health hazards

General	The product can be absorbed by inhalation, ingestion, and to a lesser extent through the skin. Solvents may among other things damage nerve cells, unlike other cells in the body beyond repair or replace. This is why inhalation of solvent vapors over time can cause brain damage. These injuries can not be cured, and they gradually lead to serious health problems and personality
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changes. Solvents can also cause permanent damage to the kidney and liver.

Potential acute effects

Inhalation	Harmful by inhalation. Inhalation of high vapor concentrations may cause symptoms such as mild irritation, headache, dizziness, fatigue, nausea and in severe cases, unconsciousness. See under "General".
Skin contact	Corrosive. May cause sensitization by skin contact.
Eye contact	Corrosive.
Ingestion	Corrosive. Harmful if swallowed. May cause nausea, vomiting and diarrhea. Ingestion of large amounts may cause stomach pain and possibly cause effects as through inhalation.

Delayed effects / repeated exposure

Sensitisation	May cause sensitization by inhalation and skin contact.
Chronic effects	Risk of permanent damage to the brain, liver and kidneys with repeated and prolonged exposure. These injuries are difficult to heal and can gradually lead to serious health problems and personality changes. For example some of the symptoms under "Inhalation" can be lasting.

SECTION 12: Ecological information

12.1. Toxicity

Ecotoxicity	Styrene: LC50 (96 hours) Bluegill sunfish = 25 mg/l LC50 (48 hours) Daphnia magna = 23 mg/l EC50 (5 minutes) Photobacterium phosphoreum = 5,47 ppm Microtox test.
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12.2. Persistence and degradability

Persistence and degradability	Styrene BOD5 = 2,46 mgO2/l
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12.3. Bioaccumulative potential

Bioaccumulative potential	Styrene: Bioconcentration factor (BCF) for goldfish= 13,5
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12.4. Mobility in soil

Comments, Water solubility	Not specified.
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12.5. Results of PBT and vPvB assessment

PBT assessment results	This mixture contains no substances that are considered to be PBT or vPvB.
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12.6. Other adverse effects

Environmental details, summation	Do not discharge product into drains, water or environment in general.
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SECTION 13: Disposal considerations

13.1. Waste treatment methods

Specify the appropriate methods of disposal	Pure product is hazardous waste on the basis of criteria specified in the Regulations relating to the recycling of waste (Waste Regulations). All containers should be emptied and removed according to local rules and reused (if possible) without the labeling of the container removed. The given EWC-code(s) are guidelines only. The end user has to choose the correct code(s) based on the actual use of the product.
Product classified as hazardous waste	Yes
Packaging classified as hazardous waste	Yes
EWC waste code	EWC: 08 04 09 waste adhesives and sealants containing organic solvents or other dangerous substances
NORSAS	7052
Other Information	Wasteno. 7052: Paint, glue and laquer, which consists of 2 components to be mixed before curing.

SECTION 14: Transport information

14.1. UN number

ADR	2924
RID	2924
IMDG	2924
ICAO/IATA	2924

14.2. UN proper shipping name

ADR	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
RID	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
IMDG	FLAMMABLE LIQUID, CORROSIVE, N.O.S.
ICAO/IATA	FLAMMABLE LIQUID, CORROSIVE, N.O.S.

14.3. Transport hazard class(es)

ADR	3 (8)
Hazard no.	38
RID	3 (8)
IMDG	3 (8)
ICAO/IATA	3 (8)

14.4. Packing group

ADR	III
RID	III
IMDG	III
ICAO/IATA	III

14.5. Environmental hazards

14.6. Special precautions for user

EmS	F-E, S-C
Special safety precautions for user	EmS: F-E, S-C

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

Additional information.

Additional information.	Not relevant.
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SECTION 15: Regulatory information

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

References (laws/regulations)	<p>FOR 2002-07-16 nr 1139: Regulation on classification, labeling, of hazardous chemicals, as amended</p> <p>FOR 2008-05-30 No. 516: Regulations concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)</p> <p>FOR 2004-06-01 No. 930: Regulations relating to the recycling of waste (Waste Regulations), as amended.</p> <p>FOR 2009-04-01 No. 384: Regulations relating to land transport of dangerous goods (land transport regulations). ADR / RID</p> <p>FOR 2006-06-29 No. 786: Regulations concerning the carriage of dangerous goods in cargo ships and barges. IMDG.</p> <p>FOR 2003-01-11 nr 41: Regulations for transportation of cargo in the aircraft (BSL D 1-7). IATA.</p> <p>FOR 1998-04-30 No. 550: Regulations relating to the work of children and youths, as amended</p> <p>FOR 1993-05-24 nr 1425: Regulations concerning the use of personal protective equipment in the workplace, as amended</p>
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Administrative norms for pollution of the working atmosphere.
www.arbeidstilsynet.no / administrative norms
 Substance List: CLP (EC) No 1272/2008 Annex VI

15.2. Chemical safety assessment

Chemical safety assessment performed No

SECTION 16: Other information

OAD group	5
OAD no.	> 5600 m ³ /l
List of relevant R-phrases (under headings 2 and 3).	R10 Flammable. R20 Harmful by inhalation. R20/22 Harmful by inhalation and if swallowed. R22 Harmful if swallowed. R34 Causes burns. R36/38 Irritating to eyes and skin. R42/43 May cause sensitization by inhalation and skin contact.
List of relevant H-phrases (Section 2 and 3).	H226 Flammable liquid and vapour. H302 Harmful if swallowed. H314 Causes Severe skin burns and eye damage. H315 Causes Skin irritation. H317 May cause an allergic skin reaction. H319 Causes Serious eye irritation. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Information which has been added, deleted or revised	Upgrade in accordance to Annex II REACH. Changes in all sections. Replaces edition of: 26.05.2009.
Checking quality of information	This MSDS is quality controlled by BIS Production Partner, which is certified acc. to NS-EN ISO 9001. The Safety Data Sheet is prepared / revised quality controlled and approved in accordance with current regulations. BIS Production Partner has no responsibility for errors or omissions in the information from the manufacturer / importer / translator. Manufacturer / supplier stated in section 1 is legally responsible for the MSDS content.
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Responsible for safety data sheet	Parker Scanrope AS