

# SAFETY DATA SHEET

according to Regulation (EU) No. 1907/2006

## S&P Resin 220 (Comp. B)

### 1. Identification of the substance/preparation and of the company/undertaking

<b>Use of the Substance/Preparation</b>	Hardener for epoxy resin
<b>Company/Undertaking Identification</b>	S&P Reinforcement International AG Seewernstrasse 127 CH-6423 Seewen/SZ Switzerland  +41 41 825 00 70 / info@sp-reinforcement.eu (8 – 17 h)
<b>Emergency telephone number</b>	145 / +41 44 251 51 51 (Swiss Toxicological Info Center - 24h)
<b>Revision Date</b>	14.04.2011
<b>Version</b>	1

### 2. Hazards identification



C - Corrosive.

Causes burns. May cause sensitisation by skin contact. May cause sensitisation by inhalation and skin contact.

### 3. Composition/information on ingredients

**Chemical characterization** Adhesive.

Components		Symbol(s)	R-phrases(s)	CAS	EINECS
Poly (oxypropylene) diamine	20% - 25%	C	R-34	9046-10-0	
piperazine [solid]	1% - 2.5%	Xn,C	R-34-42/43-62-63	110-85-0	203-808-3
3,6-diazaoctanethylenediamin; triethylenetetramine	20% - 25%	C	R-21-34-43-52/53	112-24-3	203-950-6

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## 4. First aid measures

<b>Inhalation</b>	Move to fresh air.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water. Remove contaminated clothes and shoes. Consult a physician for severe cases.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids. Consult an ophthalmologist.
<b>Ingestion</b>	Rinse mouth. Do not induce vomiting without medical advice. Consult a physician for severe cases.

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## 5. Fire-fighting measures

<b>Suitable extinguishing media</b>	Use dry chemical, CO <sub>2</sub> , water spray or alcohol foam.
<b>Special protective equipment for firefighters</b>	Standard procedure for chemical fires.
<b>Specific methods</b>	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

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## 6. Accidental release measures

<b>Personal precautions</b>	Avoid contact with skin and eyes. Ensure adequate ventilation.
<b>Environmental precautions</b>	Do not flush into surface water or sanitary sewer system.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Sweep up and shovel into suitable containers for disposal.

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## 7. Handling and storage

<b>Handling</b>	Avoid contact with skin and eyes.
<b>Storage</b>	Keep tightly closed in a dry and cool place.

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## 8. Exposure controls / personal protection

<b>EU</b>	<b>Piperazine</b> PEL (Permissible Exposure Limit) 0.1 mg/m <sup>3</sup> PEL (Permissible Exposure Limit) - ppm STEL (Short Term Exposure Limit) 0.3 mg/m <sup>3</sup> STEL (Short Term Exposure Limit) - ppm
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<b>Occupational exposure controls</b>	Handle in accordance with good industrial hygiene and safety practice.
<b>Personal protection equipment</b>	
<b>Respiratory protection</b>	Breathing apparatus needed only when aerosol or mist is formed. Respirator with A/P2 filter.
<b>Hand protection</b>	Gloves made of Nitril. Protective gloves complying with EN 374. Break through time: 1 h.
<b>Eye protection</b>	Safety glasses with side-shields conforming to EN 166. Eye wash bottle with pure water.
<b>Skin and body protection</b>	Long sleeved clothing.

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## ***9. Physical and chemical properties***

<b>Form</b>	Liquid. Viscous.
<b>Colour</b>	Black.
<b>Odour</b>	Amine-like.
<b>Physical and chemical properties</b>	pH > 10 . Flash point: > 100 °C. Water solubility: partly soluble Fat solubility: partly soluble Melting point/range – not determined. Boiling point/range – not determined. Density 1.6 g/ml. Explosion limits: not applicable.

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## ***10. Stability and reactivity***

<b>Stability</b>	Stable at normal conditions. No decomposition if used as directed.
<b>Conditions to avoid</b>	Direct sources of heat.
<b>Materials to avoid</b>	Keep away from oxidising agents, strongly alkaline and strongly acid materials in order to avoid exothermic reactions.
<b>Hazardous decomposition products</b>	None reasonably foreseeable.

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## 11. Toxicological information

<b>Acute toxicity</b>	<b>Poly (oxypropylene) diamine</b> LD50/oral/rat = 2880 mg/kg. LD50/dermal/rabbit = 2980 mg/kg. <b>Piperazine</b> LD50/dermal/rabbit = 4000 mg/kg. LD50/oral/rat = 2600 mg/kg. <b>triethylenetetramine</b> LD50/dermal/rabbit = 805 mg/kg. LD50/oral/rat = 2500 mg/kg.
<b>Local effects</b>	Causes burns.
<b>Long term toxicity</b>	No data is available on the product itself.
<b>Sensitization</b>	May cause sensitisation by skin contact.

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## 12. Ecological information

<b>Ecotoxicity</b>	No data is available on the product itself.
<b>Results of PBT assessment</b>	This preparation contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).
<b>Other adverse effects</b>	water contaminating (WGK-D : 2 – self estimation).

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## 13. Disposal considerations

<b>Waste from residues / unused products</b>	European Waste catalogue code (EWC-code): 08 01 11. According to the European Waste Catalogue, Waste Codes are not product specific, but application specific.
<b>Contaminated packaging</b>	Empty containers should be taken for local recycling, recovery or waste disposal.

## 14. Transport information

<b>ADR/RID</b>	<p>Proper shipping name POLYAMINES, LIQUID, CORROSIVE, N.O.S. (3,6-diazaoctanethylenediamin; triethylenetetramine, Poly (oxypropylene) diamine)            UN No 2735.            Class 8.            Packing group II.            ADR/RID-Labels 8.            Classification code C7.            Risk No. 80.            Limited quantities LQ22.            Tunnel code 2 (E)</p>
<b>IMO</b>	<p>Proper shipping name Polyamines, liquid, corrosive, n.o.s. (3,6-diazaoctanethylenediamin; triethylenetetramine, Poly (oxypropylene) diamine)            UN No 2735.            Class 8.            Packing group II.            ADR/RID-Labels 8.            Limited quantities 1 L.            EmS F-E, S-B.</p>
<b>ICAO</b>	<p>Proper shipping name Polyamines, liquid, corrosive, n.o.s. * (3,6-diazaoctanethylenediamin; triethylenetetramine, Poly (oxypropylene) diamine)            UN No 2735.            Class 8.            Packing group II.            Packing instruction (passenger aircraft): 808 (1 L).            Packing instruction (LQ): Y808 (0.5 L).            Packing instruction (cargo aircraft): 812 (30 L).</p>

## 15. Regulatory information

<b>Symbol(s)</b>	C - Corrosive.
<b>R-phrases(s)</b>	<p>R34: Causes burns.            R43: May cause sensitisation by skin contact.            R42/43: May cause sensitisation by inhalation and skin contact.</p>
<b>S-phrases(s)</b>	<p>S1/2: Keep locked up and out of the reach of children.            S24: Avoid contact with skin.            S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.            S45: In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).            S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.</p>
<b>Hazardous components which must be listed on the label</b>	<p>3,6-diazaoctanethylenediamin; triethylenetetramine, CAS-No. 112-24-3, EC-No. 203-950-6            Poly (oxypropylene) diamine, CAS-No. 9046-10-0            piperazine [solid], CAS-No. 110-85-0, EC-No. 203-808-3</p>

**Regulatory Information**

Classification according to EC directive.  
VOC (CH) = 0%

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**16. Other information**

**Recommended use**

For industrial application only.

**Text of R phrases mentioned in Section 3**

R21: Harmful in contact with skin.  
R34: Causes burns.  
R43: May cause sensitisation by skin contact.  
R62: Possible risk of impaired fertility.  
R63: Possible risk of harm to the unborn child.  
R42/43: May cause sensitisation by inhalation and skin contact.  
R52/53: Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Further information**

Take notice of the directions of use on the label. (M)SDS sections updated: 3-15.

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release.