



## SAFETY DATA SHEET

### Altro Seal vertical hardener

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

##### 1.1. Product identifier

**Product name**                      Altro Seal vertical hardener

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

**Identified uses**                      Epoxy Resin Flooring Material

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

**Supplier**                              Altro Resin Systems Ltd  
 Unit 3 Station Rd Industrial Estate  
 Maiden Newton  
 Dorchester  
 Dorset  
 DT2 0AE  
 Tel: 01300320620  
 Fax: 01300321122

info@altro.com

##### 1.4. Emergency telephone number

**Emergency telephone**              +44(0)1462480480 (Monday-Friday 09.00-17.00)

#### SECTION 2: Hazards identification

##### 2.1. Classification of the substance or mixture

###### Classification (EC 1272/2008)

**Physical hazards**                      Flam. Liq. 3 - H226

**Health hazards**                      Acute Tox. 4 - H332 Skin Irrit. 2 - H315 Elicitation - EUH208 Skin Sens. 1 - H317 STOT SE 3 - H335

**Environmental hazards**              Not Classified

Classification (67/548/EEC or -  
 1999/45/EC)

##### 2.2. Label elements

###### Pictogram



**Signal word**

Warning

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<b>Hazard statements</b>	<p>H226 Flammable liquid and vapour.  H315 Causes skin irritation.  H317 May cause an allergic skin reaction.  H332 Harmful if inhaled.  H335 May cause respiratory irritation.</p>
<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  P240 Ground/ bond container and receiving equipment.  P241 Use explosion-proof electrical equipment.  P242 Use only non-sparking tools.  P243 Take precautionary measures against static discharge.  P261 Avoid breathing vapour/ spray.  P264 Wash contaminated skin thoroughly after handling.  P271 Use only outdoors or in a well-ventilated area.  P272 Contaminated work clothing should not be allowed out of the workplace.  P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.  P302+P352 IF ON SKIN: Wash with plenty of water.  P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower.  P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.  P312 Call a POISON CENTER/ doctor if you feel unwell.  P321 Specific treatment (see medical advice on this label).  P332+P313 If skin irritation occurs: Get medical advice/ attention.  P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.  P362+P364 Take off contaminated clothing and wash it before reuse.  P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.  P403+P233 Store in a well-ventilated place. Keep container tightly closed.  P403+P235 Store in a well-ventilated place. Keep cool.  P405 Store locked up.  P501 Dispose of contents/ container in accordance with national regulations.</p>
<b>Contains</b>	<p>hexamethylene-1,6-diisocyanate homopolymer, ETHYLBENZENE, XYLENE, HEXAMETHYLENE-DI-ISOCYANATE</p>

### 2.3. Other hazards

#### SECTION 3: Composition/information on ingredients

#### 3.2. Mixtures

<b>hexamethylene-1,6-diisocyanate homopolymer</b>	<b>60-100%</b>
CAS number: —	EC number: 500-060-2
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Acute Tox. 4 - H332	Xn;R20. Xi;R37. R43.
Skin Sens. 1 - H317	
STOT SE 3 - H335	
<b>ETHYLBENZENE</b>	<b>10-30%</b>
CAS number: 100-41-4	EC number: 202-849-4
<b>Classification</b>	<b>Classification (67/548/EEC or 1999/45/EC)</b>
Flam. Liq. 2 - H225	F;R11 Xn;R20
Acute Tox. 4 - H332	

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<b>XYLENE</b>	<b>10-30%</b>
CAS number: 1330-20-7	EC number: 215-535-7
<b>Classification</b> Flam. Liq. 3 - H226 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Skin Irrit. 2 - H315	<b>Classification (67/548/EEC or 1999/45/EC)</b> R10 Xn;R20/21 Xi;R38
<b>2-METHOXY-1-METHYLETHYL ACETATE</b>	<b>10-30%</b>
CAS number: 108-65-6	EC number: 203-603-9
<b>Classification</b> Flam. Liq. 3 - H226 STOT SE 3 - H336	<b>Classification (67/548/EEC or 1999/45/EC)</b> R10,R67.
<b>HEXAMETHYLENE-DI-ISOCYANATE</b>	<b>&lt;1%</b>
CAS number: 822-06-0	EC number: 212-485-8
<b>Classification</b> Acute Tox. 3 - H331 Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Resp. Sens. 1 - H334 Skin Sens. 1 - H317 STOT SE 3 - H335	<b>Classification (67/548/EEC or 1999/45/EC)</b> T;R23 R42/43 Xi;R36/37/38

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

<b>Inhalation</b>	Remove casualty from exposure ensuring one's own safety whilst doing so Transfer to hospital as soon as possible.
<b>Ingestion</b>	DO NOT induce vomiting. Get medical attention immediately.
<b>Skin contact</b>	Wash immediately with plenty of soap and water. Consult a doctor.
<b>Eye contact</b>	Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination

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

<b>Inhalation</b>	There may be irritation of the throat with a feeling of tightness in the chest Exposure may cause coughing or wheezing
<b>Ingestion</b>	Nausea and stomach pain may occur.
<b>Skin contact</b>	There may be irritation and redness at the site of contact.
<b>Eye contact</b>	There may be irritation and pain

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

<b>Notes for the doctor</b>	No specific recommendations.
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## Altro Seal vertical hardener

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media** Carbon dioxide. Alcohol resistant foam. Water spray.

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

**Hazardous combustion products** In combustion emits toxic fumes of carbon monoxide. In combustion emits toxic fumes of nitrogen oxides. In combustion emits toxic fumes of hydrogen cyanide.

#### 5.3. Advice for firefighters

**Special protective equipment for firefighters** 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. Eliminate all sources of ignition. Mark out the contaminated area with signs and prevent access to unauthorised personnel

#### 6.2. Environmental precautions

**Environmental precautions** Avoid the spillage or runoff entering drains, sewers or watercourses.

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

**Methods for cleaning up** Absorb into dry earth or sand. Refer to section 13 of SDS for suitable method of disposal

#### 6.4. Reference to other sections

**Reference to other sections** See sections 8 and 13.

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

**Usage precautions** Ensure there is sufficient ventilation of the area. Avoid the formation or spread of mists in the air.

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

**Storage precautions** Store in cool, well ventilated area. Prevent the build up of electrostatic charge in the immediate area. Keep container tightly closed.

#### 7.3. Specific end use(s)

**Usage description** Must only be kept in original packaging.

### SECTION 8: Exposure Controls/personal protection

#### 8.1. Control parameters

##### Occupational exposure limits

##### **ETHYLBENZENE**

Long-term exposure limit (8-hour TWA): WEL 100 ppm(Sk) 441 mg/m<sup>3</sup>(Sk)

Short-term exposure limit (15-minute): WEL 125 ppm(Sk) 552 mg/m<sup>3</sup>(Sk)

##### **XYLENE**

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 220 mg/m<sup>3</sup>(Sk)

Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 441 mg/m<sup>3</sup>(Sk)

##### **2-METHOXY-1-METHYLETHYL ACETATE**

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Long-term exposure limit (8-hour TWA): WEL 50 ppm 274 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): WEL 100 ppm 548 mg/m<sup>3</sup>

Sk

### HEXAMETHYLENE-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m<sup>3</sup>(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m<sup>3</sup>(Sen)

WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

### 8.2. Exposure controls

<b>Appropriate engineering controls</b>	Provide adequate ventilation.
<b>Eye/face protection</b>	Wear tight-fitting, chemical splash goggles or face shield.
<b>Hand protection</b>	Use protective gloves.
<b>Other skin and body protection</b>	Protective clothing.

## SECTION 9: Physical and Chemical Properties

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

**Appearance** Liquid.

### 9.2. Other information

**Other information** None.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** No specific test data related to reactivity available for this product or its ingredients.

### 10.2. Chemical stability

**Stability** Stable at normal ambient temperatures.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** Not known.

### 10.4. Conditions to avoid

**Conditions to avoid** Direct sunlight. Heat Moist air

### 10.5. Incompatible materials

**Materials to avoid** Alcohols. Amines. Water.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Not known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

**Toxicological effects** 2-METHOXY-1-METHYLETHYL ACETATE  
IPR MUS LD50 750 mg/kg  
ORL RAT LD50 8532 mg/kg

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### Acute toxicity - dermal

ATE dermal (mg/kg) 8,800.0

### Acute toxicity - inhalation

ATE inhalation (gases ppm) 5,048.89

ATE inhalation (vapours mg/l) 12.46

ATE inhalation (dusts/mists mg/l) 1.7

**Inhalation** May cause sensitisation by inhalation.

**Skin contact** May cause sensitisation by skin contact.

## SECTION 12: Ecological Information

**Ecotoxicity** There are no data on the ecotoxicity of this product.

### 12.1. Toxicity

**Toxicity** No information available on the mixture

### 12.2. Persistence and degradability

**Persistence and degradability** Not biodegradable

### 12.3. Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

### 12.4. Mobility in soil

**Mobility** The resin reacts with water at the interface forming CO<sub>2</sub> and a solid insoluble product with high melting point (polyurea). This reaction is accelerated by surfactants (e.g. detergents) or by water-soluble solvents.

### 12.5. Results of PBT and vPvB assessment

**Results of PBT and vPvB assessment** No data available.

### 12.6. Other adverse effects

**Other adverse effects** Negligible ecotoxicity.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

**Disposal methods** Cured Material may be disposed of as plastic waste, uncured material and containers must be disposed of in accordance to local council regulations

## SECTION 14: Transport information

### 14.1. UN number

UN No. (ADR/RID) 1866

UN No. (IMDG) 1866

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UN No. (ICAO) 1866

UN No. (ADN) 1866

### 14.2. UN proper shipping name

Proper shipping name (ADR/RID) RESIN SOLUTION

Proper shipping name (IMDG) RESIN SOLUTION

Proper shipping name (ICAO) RESIN SOLUTION

Proper shipping name (ADN) RESIN SOLUTION

### 14.3. Transport hazard class(es)

ADR/RID class 3

ADR/RID classification code F1

ADR/RID label 3

IMDG class 3

ICAO class/division 3

ADN class 3

### Transport labels



### 14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ADN packing group III

ICAO packing group III

### 14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

No.

### 14.6. Special precautions for user

EmS F-E, S-E

ADR transport category 3

Emergency Action Code •3YE

Hazard Identification Number (ADR/RID) 33

Tunnel restriction code (D/E)

### 14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

## SECTION 15: Regulatory information

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

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### Guidance

The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

#### SECTION 16: Other information

<b>Revision date</b>	19/09/2016
<b>Revision</b>	2
<b>SDS number</b>	21364
<b>Hazard statements in full</b>	H225 Highly flammable liquid and vapour. H226 Flammable liquid and vapour. H312 Harmful in contact with skin. H315 Causes skin irritation. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation. H331 Toxic if inhaled. H332 Harmful if inhaled. H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled. H335 May cause respiratory irritation. H336 May cause drowsiness or dizziness. EUH208 Contains HEXAMETHYLENE-DI-ISOCYANATE. May produce an allergic reaction.

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.