



SAFETY DATA SHEET

Altro Seal standard clear, Altro Seal standard coloured and Altro Seal slip-resistant hardener

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

1.1. Product identifier

Product name Altro Seal standard clear, Altro Seal standard coloured and Altro Seal slip-resistant 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 Not Classified

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) Xn;R20/21. Xi;R37. R43.

2.2. Label elements

Pictogram



Signal word Warning

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Hazard statements	H315 Causes skin irritation. H317 May cause an allergic skin reaction. H332 Harmful if inhaled. H335 May cause respiratory irritation.
Precautionary statements	EUH204 Contains isocyanates. May produce an allergic reaction. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P501 Dispose of contents/ container to ... P501 Dispose of contents/ container in accordance with national regulations.
Contains	hexamethylene-1,6-diisocyanate homopolymer, ETHYLBENZENE, XYLENE, HEXAMETHYLENE-DI-ISOCYANATE

2.3. Other hazards

Harmful by inhalation and in contact with skin. May cause sensitisation by skin contact.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

hexamethylene-1,6-diisocyanate homopolymer	60-100%
CAS number: —	EC number: 500-060-2
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 4 - H332	Xn;R20. Xi;R37. R43.
Skin Sens. 1 - H317	
STOT SE 3 - H335	
ETHYLBENZENE	10-30%
CAS number: 100-41-4	EC number: 202-849-4
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225	F;R11 Xn;R20
Acute Tox. 4 - H332	
XYLENE	10-30%
CAS number: 1330-20-7	EC number: 215-535-7
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	R10 Xn;R20/21 Xi;R38
Acute Tox. 4 - H312	
Acute Tox. 4 - H332	
Skin Irrit. 2 - H315	
2-METHOXY-1-METHYLETHYL ACETATE	10-30%
CAS number: 108-65-6	EC number: 203-603-9
Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	R10,R67.
STOT SE 3 - H336	

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HEXAMETHYLENE-DI-ISOCYANATE		<1%
CAS number: 822-06-0	EC number: 212-485-8	
Classification	Classification (67/548/EEC or 1999/45/EC)	
Acute Tox. 3 - H331	T;R23 R42/43 Xi;R36/37/38	
Skin Irrit. 2 - H315		
Eye Irrit. 2 - H319		
Resp. Sens. 1 - H334		
Skin Sens. 1 - H317		
STOT SE 3 - H335		

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

Inhalation	Remove casualty from exposure ensuring one's own safety whilst doing so Transfer to hospital as soon as possible.
Ingestion	DO NOT induce vomiting. Get medical attention immediately.
Skin contact	Wash immediately with plenty of soap and water. Consult a doctor.
Eye contact	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

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

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

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

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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/m³(Sk)

Short-term exposure limit (15-minute): WEL 125 ppm(Sk) 552 mg/m³(Sk)

XYLENE

Long-term exposure limit (8-hour TWA): WEL 50 ppm(Sk) 220 mg/m³(Sk)

Short-term exposure limit (15-minute): WEL 100 ppm(Sk) 441 mg/m³(Sk)

2-METHOXY-1-METHYLETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 274 mg/m³

Short-term exposure limit (15-minute): WEL 100 ppm 548 mg/m³

Sk

HEXAMETHYLENE-DI-ISOCYANATE

Long-term exposure limit (8-hour TWA): WEL 0.02 mg/m³(Sen)

Short-term exposure limit (15-minute): WEL 0.07 mg/m³(Sen)

WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

8.2. Exposure controls

Appropriate engineering controls Provide adequate ventilation.

Eye/face protection Wear tight-fitting, chemical splash goggles or face shield.

Hand protection Use protective gloves.

Other skin and body protection Protective clothing.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

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Appearance	Colourless liquid.
Odour	Characteristic.
Flash point	38°C
Solubility(ies)	Soluble in most organic solvents
Auto-ignition temperature	460°C

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

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

Stability	Stable at normal ambient temperatures.
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10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not known.
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10.4. Conditions to avoid

Conditions to avoid	Direct sunlight. Heat Moist air
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10.5. Incompatible materials

Materials to avoid	Alcohols. Amines. Water.
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10.6. Hazardous decomposition products

Hazardous decomposition products	Not known.
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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
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Acute toxicity - inhalation

ATE inhalation (gases ppm)	5,048.89
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ATE inhalation (vapours mg/l)	12.46
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ATE inhalation (dusts/mists mg/l)	1.7
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Inhalation	May cause sensitisation by inhalation.
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Skin contact	May cause sensitisation by skin contact.
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SECTION 12: Ecological Information

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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 CO₂ 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

General The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2. UN proper shipping name

Not applicable.

14.3. Transport hazard class(es)

No transport warning sign required.

14.4. Packing group

Not applicable.

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant
No.

14.6. Special precautions for user

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Not applicable.

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

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

SECTION 15: Regulatory information

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

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

Revision date	19/09/2016
Revision	2
SDS number	21365
Risk phrases in full	R10 Flammable. R11 Highly flammable. R20 Harmful by inhalation. R20/21 Harmful by inhalation and in contact with skin. R23 Toxic by inhalation. R36/37/38 Irritating to eyes, respiratory system and skin. R37 Irritating to respiratory system. R38 Irritating to skin. R42/43 May cause sensitisation by inhalation and skin contact. R43 May cause sensitisation by skin contact. R67 Vapours may cause drowsiness and dizziness.
Hazard statements in full	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.