ARDEX X 7 R S1

ACCORDING TO EC-REGULATIONS 1907/2006 (REACH), 1272/2008 (CLP) & 2020/878

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier

Product Name	ARDEX X 7 R S1

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

Identified Use(s)	Cement based adhesive.
Uses Advised Against	Not known.

1.3 Details of the supplier of the safety data sheet

Manufacturer	
Company Identification	Ardex UK Limited
Address	Homefield Road Haverhill
Postal code	CB9 8QB
Telephone:	+44 (0)1440 714939
Fax	Not known.
E-mail	safetydatasheets@ardex.co.uk
Office hours	8:30am-5pm, Mon-Fri (excluding bank holidays)
Supplier	
Company identification	Ardex Building Products Ireland Limited
Address of supplier	Unit 622, Phase III, Northwest Logistics Park, Ballycoolin, Blanchardstown, Dublin
Postal code	D15 VN36
Telephone:	+353 1 880 9210
Fax:	Not known
E-mail	info@ardexbuildingproducts.ie
Office hours	8:30am-5pm, Mon-Fri (excluding bank holidays)

1.4 Emergency telephone number

Emergency Phone No.	01865 407 333 (24/7 all year)
Contact	No information available.
National response centre	
Address	National Poisons Information Centre, Beaumont Hospital, Dublin 9, DOV2NO, Ireland.
Emergency Phone No.	+353 (0)1 809 2166 (8am-10pm, 7 days)

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No. 1272/2008 (CLP)	Skin Irrit. 2 :Causes skin irritation. Skin Sens. 1B :May cause an allergic skin reaction. Eye Dam. 1 :Causes serious eye damage. STOT SE 3 :May cause respiratory irritation.

2.2 Label elements

	According to Regulation (EC) No. 1272/2008 (CLP)
Product Name	ARDEX X 7 R S1

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Hazard Pictogram(s)

GHS05

GHS07

Signal Word(s) Danger

Hazard Statement(s)
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H318: Causes serious eye damage.
H335: May cause respiratory irritation.

Precautionary Statement(s)
P102: Keep out of reach of children.
P261: Avoid breathing dust.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P501: Dispose of contents in accordance with local, state or national legislation.

2.3 Other hazards

When the cement-based powder is mixed with water or admixture, a strongly alkaline paste is produced. Cement-based products may, until set, cause both irritant and allergic contact dermatitis. Irritant contact dermatitis is due to a combination of the wetness, alkalinity and abrasiveness of the constituent materials. Allergic contact dermatitis is caused mainly by the sensitivity of the individual's skin to hexavalent chromium salts. Corrosive. Prolonged contact causes serious eye and tissue damage.

2.4 Additional Information

Contains Ordinary Portland Cement, Calcium Sulpholuminate Cement. The product contains a reducing agent to ensure that the CrVI content of the cement in the product remains below 2ppm during the defined shelf life of the product. The product is not expected to be hazardous to the environment.
For full text of H/P Statements see section 16.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Not applicable.

3.2 Mixtures

HAZARDOUS INGREDIENT(S)	CAS No.	EC No. / REACH Registration No.	%W/W	Hazard Statement(s)	Hazard Pictogram(s)
Quartz (SiO2)	14808-60-7	238-878-4	50-70	Not classified	None

Ordinary Portland Cement	65997-15-1	266-043-4	20-30	Skin Irrit. 2 H315 Skin Sens. 1B H317 Eye Dam. 1 H318 STOT SE 3 H335	GHS05 GHS07
Limestone	1317-65-3	215-279-6	10-20	Not classified	None
Calcium Sulfoaluminate Cement	12004-14-7	234-448-5	<5	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Dam. 1 H318 STOT SE 3 H335	GHS05 GHS07
Lithium carbonate	554-13-2	209-062-5	<1	Acute Tox. 4 H302 Eye Irrit. 2 H319	GHS07
Sodium carbonate	497-19-8	207-838-8	<1	Eye Irrit. 2 H319	GHS07
Citric acid	77-92-9	201-069-1	<1	Eye Irrit. 2 H319	GHS07
Tin sulphate	7488-55-3	231-302-2	<1	Skin Irrit. 2 H315 Skin Sens. 1 H317 Eye Dam. 1 H318 STOT RE 2 H373	GHS05 GHS08 GHS07

HAZARDOUS INGREDIENT(S)	CAS No.	Specific Concentration Limit		M-factor	ATE
Lithium carbonate	554-13-2				Acute Tox. 4 (H302) : 500.000
Citric acid	77-92-9	Eye Irrit. 2A	C 0.00 100.00		
Tin sulphate	7488-55-3				Acute Tox. 4 (H332) : 1.500

Contains no non-classified vPvB substances.
Contains a non-classified substance with a Union workplace exposure limit. Cristobalite, Quartz, Tridymite, Tripoli (Silica, Crystalline), respirable dust (14808-60-7)
For full text of H/P Statements see section 16.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation — Remove affected person to fresh air at once and keep comfortable for breathing. Get medical attention immediately if irritation persists.

Skin Contact — Remove contaminated clothing immediately and wash it before reuse. Wash the affected area thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye Contact — Remove contact lenses, if present and easy to do. Rinse cautiously with water for several minutes. Continue rinsing. Get medical attention immediately if irritation persists.

Ingestion	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes burns. Allergic contact dermatitis.

4.3 Indication of any immediate medical attention and special treatment needed

If ingested, immediately call a POISON CENTRE/doctor. Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Suitable Extinguishing media	As appropriate for surrounding fire.
Unsuitable extinguishing media	None.

5.2 Special hazards arising from the substance or mixture

May decompose in a fire, giving off toxic and irritant vapours.

5.3 Advice for firefighters

Fire fighters should wear complete protective clothing including self-contained breathing apparatus.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Provide adequate ventilation. Avoid dust generation. Do not breathe dust. Ensure full personal protection (including respiratory protection) during removal of spillages.

6.2 Environmental precautions

Spillages or uncontrolled discharges into watercourses must be alerted to the appropriate regulatory body.

6.3 Methods and material for containment and cleaning up

Sweep up spilled substance and remove to safe place. Use vacuum equipment for collecting spilt materials, where practicable. Avoid contact with skin or inhalation of spillage or dust. Dampen spillage with water. Absorb in vermiculite, dry sand or earth and place into containers. Avoid the spillage or runoff entering drains, sewers or watercourses. Collect and place in suitable waste disposal containers and seal securely. Label the containers and remove from the area as soon as possible. Flush contaminated area with plenty of water.

6.4 Reference to other sections

See also section 8, 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Avoid breathing dust. Wash hands and exposed skin thoroughly after handling. Use only outdoors or in a well-ventilated area. Wear protective gloves/protective clothing/eye protection/face protection.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Storage temperature	Ambient.
Storage life	Stable under normal conditions.
Incompatible materials	None known.

7.3 Specific end use(s)

See 1.2.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

8.1.1 Occupational Exposure Limits

Occupational Exposure Limits						
SUBSTANCE.	CAS No.	LTEL (8 hr TWA ppm)	LTEL (8 hr TWA mg/m³)	STEL (ppm)	STEL (mg/m³)	Note
Portland Cement	65997-15-1		1			R
Quartz, (Silica, Crystalline), respirable dust	14808-60-7		0.1			BOELV
Crystalline Silica Dust	14808-60-7		0.1			CM, (7.1)
Tin, as Sn - Oxide & inorganic compounds, except tin hydride	7488-55-3		2			IOELV
Calcium carbonate inhalable dust	1317-65-3		10			
Calcium carbonate respirable dust	1317-65-3		4			
Limestone total inhalable	1317-65-3		10			
Limestone respirable	1317-65-3		4			
Marble total inhalable	1317-65-3		10			
Marble respirable	1317-65-3		4			
Tin (inorganic compounds as Sn)	7488-55-3		2			IOELV, (4.1)

Region	Source
EU	Indicative Occupational Exposure Limit Value
Ireland	Code of Practice for the Chemical Agents Regulations 2018, Ireland
Remark	Notes
R	Respirable Fraction - Particles of inhalable aerosols that are inhaled and are not captured in the upper airways (nasopharyngeal and tracheobronchial regions) but penetrate to the pulmonary region containing the respiratory bronchioles, alveolar ducts and alveolar sacs are considered to comprise of the respirable fraction of the aerosol.
BOELV	Binding Occupational Exposure Limit Values are transposed from the relevant EU Directives through a range of national legislation comprising the Safety, Health and Welfare at Work (Asbestos) Regulations 2006 (S.I. No. 386 of 2006), the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001) and the Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001). BOELVs take account of socio-economic and technical feasibility factors as well as the factors considered when establishing IOELVs. For any chemical for which a BOELV is established at EU level, Member States must establish a corresponding BOELV, which can be stricter but cannot exceed the Community value.

BOELV	Binding Occupational Exposure Limit Values.
CM	Carcinogens or Mutagens Occupational Exposure Limit Values.
(7.1)	Respirable fraction.
IOELV	Indicative Occupational Exposure Limit Values.
IOELV	Indicative Occupational Exposure Limit Values are health based limits set under the Chemical Agents Directive 98/24/EC. The European Commission is advised on limits by its Scientific Committee on Occupational Exposure Limits (SCOEL). SCOEL evaluates the scientific information available on hazardous substances and makes recommendations for the establishment of an IOELV. IOELVs are listed in Directives, which Member States are obliged to implement by introducing national limits for the substances.
(4.1)	Existing scientific data on health effects appear to be particularly limited

8.2 Exposure controls

8.2.1. Appropriate engineering controls	Ensure adequate ventilation. A washing facility/water for eye and skin cleaning purposes should be present.

8.2.2. Personal protection equipment

 Eye Protection	Wear eye protection with side protection (EN166).
 Skin protection	Wear protective clothing and gloves: Impervious gloves (EN 374).
 Respiratory protection	Normally no personal respiratory protection is necessary. If ventilation is inadequate, suitable respiratory protection must be worn. Use respiratory equipment with particle filter P2.
 Thermal hazards	None known.
8.2.3. Environmental Exposure Controls	Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Physical state	Solid.
Colour	Grey
Odour	Almost odourless.
Melting point/freezing point	Not known.
Boiling point or initial boiling point and boiling range	Not known.
Flammability	Not known.
Lower and upper explosion limit	Not known.
Flash Point	Not applicable.
Auto-ignition temperature	Not known.

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Decomposition Temperature	Not known.
pH	>11.5.
Kinematic Viscosity	Not known.
Solubility	Solubility (Water) : Very slightly soluble Solubility (Other) : Not known.
Partition coefficient n-octanol/water (log value)	Not known.
Vapour pressure	Not known.
Density and/or relative density	Not known.
Relative vapour density	Not known.
Particle characteristics	Dry powder

9.2 Other information

None.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity

None anticipated.

10.2 Chemical Stability

Stable under normal conditions.

10.3 Possibility of hazardous reactions

No hazardous reactions known if used for its intended purpose.

10.4 Conditions to avoid

None anticipated.

10.5 Incompatible materials

Not known.

10.6 Hazardous decomposition products

Fire creates: carbon monoxide, carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity - Ingestion	Calculation method : Not classified.
Acute toxicity - Skin Contact	Calculation method : Not classified.
Acute toxicity - Inhalation	Calculation method : Not classified.
Skin corrosion/irritation	Calculation method : Causes skin irritation.
Serious eye damage/irritation	Calculation method : Causes serious eye damage.
Skin sensitization data	Calculation method : May cause an allergic skin reaction.
Respiratory sensitization data	Calculation method : Not classified.
Germ cell mutagenicity	Calculation method : Not classified.
Carcinogenicity	Calculation method : Not classified.
Reproductive toxicity	Calculation method : Not classified.
Lactation	Calculation method : Not classified.
STOT - single exposure	Calculation method : May cause respiratory irritation. Cement dust may irritate the throat and respiratory tract. Based on available data, the classification criteria are not met.
STOT - repeated exposure	Calculation method : Based on available data, the classification criteria are not met. There is an indication of Chronic Obstructive Pulmonary Disease (COPD). The effects are acute and due to high exposures. No chronic effects or effects at low concentration have been observed.

Aspiration hazard	Calculation method : Not classified.

11.2 Information on other hazards

Not known.

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

Toxicity - Aquatic invertebrates	Low toxicity to invertebrates.
Toxicity - Fish	Low toxicity to fish.
Toxicity - Algae	Low toxicity to algae.
Toxicity - Sediment Compartment	Not classified
Toxicity - Terrestrial Compartment	Not classified

12.2 Persistence and degradability

After hydration, cement presents no toxicity risk.

12.3 Bioaccumulative potential

No information available

12.4 Mobility in soil

Partly miscible with water.

12.5 Results of PBT and vPvB assessment

Not classified as PBT or vPvB.

12.6 Endocrine disrupting properties

None known.

12.7 Other adverse effects

Not known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Dispose of contents in accordance with local, state or national legislation. Send to a licensed recycler, reclaimer or incinerator. Dispose at suitable refuse site.

13.2 Additional Information

Disposal should be in accordance with local, state or national legislation.

SECTION 14: TRANSPORT INFORMATION

Not classified as hazardous for transport.

14.1 UN number or ID number

Not applicable

14.2 UN proper shipping name

Not applicable

14.3 Transport hazard class(es)

Not applicable

14.4 Packing group

Not applicable

14.5 Environmental hazards

Not classified as a Marine Pollutant.

14.6 Special precautions for user

Not known

14.7 Maritime transport in bulk according to IMO instruments

Not known

SECTION 15: REGULATORY INFORMATION

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

European Regulations - Authorisations and/or Restrictions On Use

Candidate List of Substances of Very High Concern for Authorisation	Not listed
REACH: ANNEX XIV list of substances subject to authorisation	Not listed
REACH: Annex XVII Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	Cement, portland, chemicals (65997-15-1).
Community Rolling Action Plan (CoRAP)	Not listed
Regulation (EU) N° 2019/1021 of the European Parliament and of the Council on persistent organic pollutants	Not listed
Regulation (EC) N° 1005/2009 on substances that deplete the ozone layer	Not listed
Regulation (EU) N° 649/2012 of the European Parliament and of the Council concerning the export and import of hazardous chemicals	Not listed

National regulations

Other	Not known.

15.2 Chemical Safety Assessment

A REACH chemical safety assessment has not been carried out.

SECTION 16: OTHER INFORMATION

The following sections contain revisions or new statements:

LEGEND

Hazard Pictogram(s)

GHS05

GHS07

Hazard classification: Skin Irrit. 2 : Skin corrosion/irritation, Category 2

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	Skin Sens. 1B : Skin sensitization, Category 1B Eye Dam. 1 : Serious eye damage/irritation, Category 1 STOT SE 3 : Specific target organ toxicity — single exposure, Category 3
Hazard Statement(s)	H302: Harmful if swallowed. H315: Causes skin irritation. H317: May cause an allergic skin reaction. H318: Causes serious eye damage. H319: Causes serious eye irritation. H335: May cause respiratory irritation. H373: May cause damage to organs through prolonged or repeated exposure.
Precautionary Statement(s)	P102: Keep out of the reach of children P261: Avoid breathing dust. P280: Wear protective gloves/protective clothing/eye protection/face protection. P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P501: Dispose of contents in accordance with national legislation. P264: Wash hands and exposed 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. P302+P352: IF ON SKIN: Wash with plenty of water. P304+P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing. P310: Immediately call a POISON CENTRE/doctor. P312: Call a POISON CENTRE/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. P403+P233: Store in a well-ventilated place. Keep container tightly closed. P405: Store locked up.
Acronyms	ATE : Acute Toxicity Estimate CAS : Chemical Abstracts Service CLP : Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures DNEL : Derived No Effect Level EC : European Community EINECS : European Inventory of Existing Commercial Chemical Substances LTEL : Long term exposure limit PBT : Persistent, Bioaccumulative and Toxic PNEC : Predicted No Effect Concentration

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REACH : Registration, Evaluation, Authorisation and Restriction of Chemicals
STEL : Short term exposure limit
STOT : Specific Target Organ Toxicity
vPvB : very Persistent and very Bioaccumulative

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Key literature references and sources for data used to compile the SDS	Regulation (EC) No. 1272/2008 (CLP)
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