

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

Issue date: 9/9/2016

Revision date: 8/24/2021



Supersedes version of:  
9/5/2019

Version: 3.0

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

#### 1.1. Product identifier

Product form : Mixture  
Product name : ARDEX R 1

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

##### 1.2.1. Relevant identified uses

Main use category : Professional use  
Industrial/Professional use spec : Construction materials  
Use of the substance/mixture : Wall Smoothing Compounds

Function or use category : Construction materials

##### 1.2.2. Uses advised against

No additional information available

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

##### Supplier

Ardex UK Limited

Homefield Road

CB9 8QP Haverhill Suffolk

T 01440 714939 - F 01440 716667

E-mail address of competent person responsible for the SDS : [safetydatasheets@ardex.co.uk](mailto:safetydatasheets@ardex.co.uk)

#### 1.4. Emergency telephone number

Emergency number : +44 (0) 870 190 6777  
24 hours

### SECTION 2: Hazards identification

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

##### Classification according to Regulation (EC) No. 1272/2008 [CLP]

Not classified

##### Adverse physicochemical, human health and environmental effects

No additional information available

#### 2.2. Label elements

##### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Precautionary statements (CLP) : P102 - Keep out of reach of children.

EUH-statements : EUH210 - Safety data sheet available on request.  
EUH212 - Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.

Extra phrases : Dispose of contents/container in accordance with regional/national/international/local regulations.

##### Labelling according to Directive 67/548/EEC or 1999/45/EC

#### 2.3. Other hazards

Other hazards which do not result in classification : Contains. cement. Chromium (VI) compounds < 2 ppm.

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
calcium carbonate	(CAS-No.) 471-34-1 (EC-No.) 207-439-9	> 55 - < 70	Not classified
Cement Alumina	(CAS-No.) 65997-16-2 (EC-No.) 266-045-5	> 10 - < 20	Not classified
calcium sulfate	(CAS-No.) 7778-18-9 (EC-No.) 231-900-3 (REACH-no) 01-2119444918-26	> 5 - < 10	Not classified
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm]	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (EC Index-No.) 022-006-002 (REACH-no) 01-2119489379-17	< 1	Carc. 2, H351

Full text of H- and EUH-statements: see section 16

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: If the person is fully conscious, make him/her drink plenty of water. Never give an unconscious person anything to drink.

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

Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Severe eye irritation.

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

Treat symptomatically.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Non flammable.
------------------------------	------------------

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

Fire hazard	: No fire hazard.
Explosion hazard	: None.
Hazardous decomposition products in case of fire	: None.

### 5.3. Advice for firefighters

Precautionary measures fire	: No specific measures are necessary.
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Absorb spillage to prevent material damage.
------------------	---

#### 6.1.1. For non-emergency personnel

Protective equipment	: Precautions for safe handling. See Heading 7.
Emergency procedures	: Avoid contact with skin and eyes.

#### 6.1.2. For emergency responders

Emergency procedures	: No specific measures are necessary.
----------------------	---------------------------------------

### 6.2. Environmental precautions

Prevent entry to sewers and public waters.

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

For containment	: Collect spillage.
Methods for cleaning up	: Mechanically recover the product. Minimise generation of dust. Collect spillage. Do not use compressed air for cleaning.

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 6.4. Reference to other sections

For further information refer to section 13. See Heading 8.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : See Heading 8.  
 Precautions for safe handling : Ensure good ventilation of the work station. Avoid contact with skin and eyes. Wear personal protective equipment.  
 Hygiene measures : Wear protective gloves. Do not eat, drink or smoke when using this product.

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

Storage conditions : Protect from moisture. Store in a dry place.  
 Incompatible materials : None.  
 Storage area : dry.

### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

calcium carbonate (471-34-1)		
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup> 4 mg/m <sup>3</sup>
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)		
United Kingdom	Local name	Titanium dioxide
United Kingdom	WEL TWA (OEL TWA) [1]	10 mg/m <sup>3</sup> 4 mg/m <sup>3</sup>

calcium carbonate (471-34-1)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	6.36 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - systemic effects, oral	6.1 mg/kg bw/day
Long-term - systemic effects, oral	6.1 mg/kg bw/day
Long-term - local effects, inhalation	1.06 mg/m <sup>3</sup>
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

calcium sulfate (7778-18-9)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	5082 mg/m <sup>3</sup> (Experimental value)
Long-term - systemic effects, inhalation	21.17 mg/m <sup>3</sup> (Experimental value)
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	3811 mg/m <sup>3</sup> (Experimental value)
Acute - systemic effects, oral	11.4 mg/kg bw/day (Experimental value)
Long-term - systemic effects, oral	1.52 mg/kg bw/day (Experimental value)
Long-term - systemic effects, inhalation	5.29 mg/m <sup>3</sup> (Experimental value)
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

calcium hydroxide (1305-62-0)	
DNEL/DMEL (Workers)	
Acute - local effects, inhalation	4 mg/m <sup>3</sup>
Long-term - local effects, inhalation	1 mg/m <sup>3</sup>
DNEL/DMEL (General population)	
Acute - local effects, inhalation	4 mg/m <sup>3</sup>
Long-term - local effects, inhalation	1 mg/m <sup>3</sup>
PNEC (Water)	
PNEC aqua (freshwater)	0.49 mg/l
PNEC aqua (marine water)	0.32 mg/l
PNEC (Soil)	
PNEC soil	1080 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	3 mg/l

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 8.2. Exposure controls

#### Appropriate engineering controls:

Ensure good ventilation of the work station.

#### Personal protective equipment:

Dust formation: dust mask.

#### Hand protection:

Protective gloves

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Reusable gloves	Nitrile rubber (NBR)	6 (> 480 minutes)	1,0		EN 388

#### Eye protection:

Safety glasses

#### Skin and body protection:

Wear suitable protective clothing

#### Respiratory protection:

In case of inadequate ventilation wear respiratory protection.

Device	Filter type	Condition	Standard
Disposable half mask	Type P1, Type P2	Dust protection	EN 149



#### 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
Appearance	: Powder.
Colour	: white.
Odour	: odourless.
Odour threshold	: No data available
pH	: 10 – 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: > 1250 °C
Freezing point	: Not applicable
Boiling point	: No data available
Flash point	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: Not applicable
Density	: 2.75 – 3.2 g/cm <sup>3</sup>
Solubility	: Water: 0.1 – 1.5 g/l @ 20°C
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: Not applicable

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 9.2. Other information

Bulk density : 900 – 1300 kg/m<sup>3</sup>

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Reacts with water.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

### 10.5. Incompatible materials

Acids.

### 10.6. Hazardous decomposition products

No hazardous decomposition products known.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

calcium carbonate (471-34-1)	
LD50 oral rat	> 2000 mg/kg (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 Inhalation - Rat	> 3 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 15 day(s))
calcium sulfate (7778-18-9)	
LD50 oral rat	> 1584 mg/kg bodyweight (OECD 420: Acute Oral toxicity – Acute Toxic Class Method, Rat, Female, Experimental value, Oral)
LC50 Inhalation - Rat	> 2.61 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (dust))
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LD50 oral rat	> 5000 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 6.82 mg/l (Other, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

Skin corrosion/irritation : Not classified  
pH: 10 – 11

Serious eye damage/irritation : Not classified  
pH: 10 – 11

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

ARDEX R 1	
Viscosity, kinematic	Not applicable

Potential adverse human health effects and symptoms : Irritation: severely irritant to eyes.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

<b>calcium carbonate (471-34-1)</b>	
LC50 - Fish [1]	> 100 % (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value, Nominal concentration)
EC50 - Crustacea [1]	> 100 % (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)
<b>calcium sulfate (7778-18-9)</b>	
LC50 - Fish [1]	2980 mg/l (96 h, Lepomis macrochirus)
<b>titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)</b>	
LC50 - Fish [1]	> 100 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)
ErC50 algae	61 mg/l (EPA 600/9-78-018, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

### 12.2. Persistence and degradability

<b>ARDEX R 1</b>	
Persistence and degradability	Not applicable. Inorganic Particulate Substances.
<b>calcium carbonate (471-34-1)</b>	
Persistence and degradability	Biodegradability in soil: not applicable. Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
<b>calcium sulfate (7778-18-9)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable
<b>titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)</b>	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

### 12.3. Bioaccumulative potential

<b>ARDEX R 1</b>	
Bioaccumulative potential	No bioaccumulation.
<b>calcium carbonate (471-34-1)</b>	
Bioaccumulative potential	Not bioaccumulative.
<b>calcium sulfate (7778-18-9)</b>	
Bioaccumulative potential	No bioaccumulation data available.
<b>titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)</b>	
Bioaccumulative potential	Not bioaccumulative.

### 12.4. Mobility in soil

<b>ARDEX R 1</b>	
Ecology - soil	None.
<b>calcium carbonate (471-34-1)</b>	
Surface tension	No data available (test not performed)
Ecology - soil	Low potential for adsorption in soil.
<b>titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)</b>	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

### 12.5. Results of PBT and vPvB assessment

<b>ARDEX R 1</b>	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	
Component	
calcium carbonate (471-34-1)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII
titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	This substance/mixture does not meet the PBT criteria of REACH regulation, annex XIII This substance/mixture does not meet the vPvB criteria of REACH regulation, annex XIII

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 12.6. Other adverse effects

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Avoid release to the environment.
Ecology - waste materials	: Avoid release to the environment.
European List of Waste (LoW) code	: 17 01 01 - concrete 10 13 14 - waste concrete and concrete sludge For residues 01 04 07* - wastes containing dangerous substances from physical and chemical processing of non-metalliferous minerals

## SECTION 14: Transport information

In accordance with ADR / IMDG / IATA

ADR	IMDG	IATA
<b>14.1. UN number</b>		
Not applicable	Not applicable	Not applicable
<b>14.2. UN proper shipping name</b>		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
<b>14.3. Transport hazard class(es)</b>		
Not applicable	Not applicable	Not applicable
Not applicable	Not applicable	Not applicable
<b>14.4. Packing group</b>		
Not applicable	Not applicable	Not applicable
<b>14.5. Environmental hazards</b>		
Not applicable	Not applicable	Not applicable
No supplementary information available		

### 14.6. Special precautions for user

#### - Overland transport

Not applicable

#### - Transport by sea

Not applicable

#### - Air transport

Not applicable

### 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

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

No additional information available

### 15.2. Chemical safety assessment

No chemical safety assessment has been carried out

## SECTION 16: Other information

# ARDEX R 1

## Safety Data Sheet

according to Regulation (EU) 2015/830

---

Full text of H- and EUH-statements:

Carc. 2	Carcinogenicity, Category 2
EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
H351	Suspected of causing cancer.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*