



Safety Data Sheet

according to Regulation (EU) 2015/830

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Version: 3.0

www.ardex.de

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
 Product name : ARDEX RF
 Product code : 32419

1.2. Relevant identified uses of the substance or mixture and uses advised against**1.2.1. Relevant identified uses**

Main use category : Construction materials
 Industrial/Professional use spec : For professional use only
 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**Manufacturer**

ARDEX GmbH

Friedrich-Ebert-Strasse 45

D-58453 Witten-Annen - Germany

T 0049 (0)2302/664-0 - F 0049 (0)2302/664-355

sicherheitsdatenblatt@ardex.de - www.ardex.deE-mail address of competent person responsible for the SDS : sicherheitsdatenblatt@ardex.de**1.4. Emergency telephone number**

Country	Organisation/Company	Address	Emergency number	Comment
Germany	Vergiftungs-Informations-Zentrale	Breisacher Strasse 86b 79110 Freiburg	+49 (0) 761 19240	For medical information in German and English language

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

To our knowledge, this product does not present any particular risk, provided it is handled in accordance with good occupational hygiene and safety practice.

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 : EUH208 - Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.
 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**

PBT: not relevant – no registration required

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vPvB: not relevant – no registration required

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
titanium(IV) oxide; [in powder form containing 1 % or more of particles with aerodynamic diameter \leq 10 μ m]	(CAS-No.) 13463-67-7 (EC-No.) 236-675-5 (EC Index-No.) 022-006-00-2	1 – 4	Carc. 2, H351
1,2-benzisothiazol-3(2H)-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6	> 0,005 - < 0,05	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400

Specific concentration limits:

Name	Product identifier	Specific concentration limits
1,2-benzisothiazol-3(2H)-one	(CAS-No.) 2634-33-5 (EC-No.) 220-120-9 (EC Index-No.) 613-088-00-6	(0.05 \leq C < 100) Skin Sens. 1, H317

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 general	: Remove dirty clothes.
First-aid measures after inhalation	: Move the affected person away from the contaminated area and into the fresh air.
First-aid measures after skin contact	: Wash off with soap and plenty of water. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth out with water. Get medical advice/attention if you feel unwell.

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

Symptoms/effects	: If symptoms persist call a doctor.
Symptoms/effects after skin contact	: May cause slight irritation.
Symptoms/effects after eye contact	: May irritate eyes and skin. Redness.

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	: Use extinguishing media appropriate for surrounding fire. extinguishing powder. Alcohol-resistant foam. Carbon dioxide. Water spray.
Unsuitable extinguishing media	: Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: In case of fire, corrosive and harmful gases come free.
Explosion hazard	: No data available.
Reactivity in case of fire	: No additional information available.
Hazardous decomposition products in case of fire	: On burning: release of carbon monoxide - carbon dioxide.

5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers.
Protection during firefighting	: Self-contained breathing apparatus. Do not attempt to take action without suitable protective equipment.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Absorb spillage to prevent material damage. Avoid dust formation.
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6.1.1. For non-emergency personnel

Protective equipment	: Concerning personal protective equipment to use, see section 8.
Emergency procedures	: Avoid contact with skin and eyes.

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6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage. Shovel into suitable and closed container for disposal.
Methods for cleaning up : Minimise generation of dust.
Other information : Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

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. Wear personal protective equipment. Avoid direct eye contact with product, also via contamination on hands.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in original container. Protect from sunlight. Keep container tightly closed.
Information on mixed storage : Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Not available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
DNEL/DMEL (Workers)	
Long-term - systemic effects, dermal	0.966 mg/kg bw/day
Long-term - systemic effects, inhalation	6.81 mg/m ³
DNEL/DMEL (General population)	
Long-term - systemic effects, inhalation	1.2 mg/m ³
Long-term - systemic effects, dermal	0.345 mg/kg bw/day
PNEC (Water)	
PNEC aqua (freshwater)	4.03 µg/l
PNEC aqua (marine water)	0.403 µg/l
PNEC (Sediment)	
PNEC sediment (freshwater)	49.9 mg/kg dwt
PNEC sediment (marine water)	4.99 mg/kg dwt
PNEC (Soil)	
PNEC soil	3 mg/kg dwt
PNEC (STP)	
PNEC sewage treatment plant	1.03 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Hand protection:

Please follow the instructions related to the permeability and the penetration time provided by the manufacturer. Protective gloves. (recommended)

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
	Butyl rubber, Nitrile rubber (NBR)	3 (> 60 minutes)	> 0,4		

Eye protection:

Safety glasses

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Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

No specific measures are necessary



Environmental exposure controls:

Avoid release to the environment.

Other information:

Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: Paste.
Colour	: Various.
Odour	: Barely perceptible.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 35 °C
Flash point	: > 93 °C
Auto-ignition temperature	: > 100 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: 23 hPa
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.5 – 0.8
Solubility	: Forms emulsion in presence of water.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

VOC content	: < 20 g/l VOC - Swiss ordinance
Additional information	: Not available

SECTION 10: Stability and reactivity

10.1. Reactivity

None.

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

Direct sunlight. heat. hot surfaces, naked flames.

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10.5. Incompatible materials

Strong acids. Strong oxidizing agents.

10.6. Hazardous decomposition products

On combustion forms: Toxic gases. Carbon dioxide (CO₂). Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LD50 oral rat	490 mg/kg bodyweight (Equivalent or similar to OECD 401, Rat, Male / 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))

titanium(IV) oxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LD50 oral rat	> 2000 mg/kg bodyweight (OECD 401: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LC50 Inhalation - Rat	> 5.09 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male, Experimental value, Inhalation (dust), 14 day(s))

Skin corrosion/irritation : May cause slight irritation
Serious eye damage/irritation : May cause moderate irritation
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

Potential adverse human health effects and symptoms : No data available.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Not available.

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
LC50 - Fish [1]	2.18 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static system, Experimental value, Lethal)
EC50 - Crustacea [1]	2.91 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Experimental value, Lethal)
EC50 72h - Algae [1]	0.15 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Experimental value, Growth rate)

titanium(IV) oxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
LC50 - Fish [1]	> 1000 mg/l (Pisces, Fresh water)
EC50 - Crustacea [1]	> 1000 mg/l (Invertebrata, Fresh water)
EC50 72h - Algae [1]	> 100 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate)

12.2. Persistence and degradability

ARDEX RF	
Persistence and degradability	Not applicable.

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
Persistence and degradability	Not readily biodegradable in water.

titanium(IV) oxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

12.3. Bioaccumulative potential

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Bioaccumulative potential	No bioaccumulation.

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1,2-benzisothiazol-3(2H)-one (2634-33-5)	
BCF - Fish [1]	6.62 (BCFBAF v3.01, 56 day(s), Cyprinus carpio, Calculated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	1.3 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

titanium(IV) oxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

ARDEX RF	
Ecology - soil	No information available.

1,2-benzisothiazol-3(2H)-one (2634-33-5)	
Surface tension	72.6 mN/m (20 °C, 0.1 %, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.97 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

titanium(IV) oxide; [in powder form containing 1 % or more of particles with aerodynamic diameter ≤ 10 µm] (13463-67-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

12.5. Results of PBT and vPvB assessment

ARDEX RF	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	
Component	
titanium(IV) oxide; [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
1,2-benzisothiazol-3(2H)-one (2634-33-5)	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

12.6. Other adverse effects

Other adverse effects : No data available.
Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Sewage disposal recommendations : Do not discharge into drains or the environment.
Product/Packaging disposal recommendations : Empty remaining contents. Recycle or dispose of in compliance with current legislation.
European List of Waste (LoW) code : 08 04 00 - wastes from MFSU of adhesives and sealants (including waterproofing products)
08 04 10 - waste adhesives and sealants other than those mentioned in 08 04 09

SECTION 14: Transport information

In accordance with ADR / IMDG / IATA / ADN / RID

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

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14.6. Special precautions for user

- Overland transport

Not applicable

- Transport by sea

Not applicable

- Air transport

Not applicable

- Inland waterway transport

Not applicable

- Rail 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

VOC content : < 20 g/l VOC - Swiss ordinance

15.1.2. National regulations

Germany

Regulatory reference : WGK 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

Storage class (LGK, TRGS 510) : LGK 13 - Non-combustible solids

Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

GISCODE : D1 - Solvent-free, dispersion installation products

EMICODE : EC 1 PLUS - very low emission

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
EUH208	Contains 1,2-benzisothiazol-3(2H)-one; 1,2-benzisothiazolin-3-one. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H351	Suspected of causing cancer.
H400	Very toxic to aquatic life.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Skin sensitisation, Category 1

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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.