

ARDEX RG 12 1-6 Hardener



Safety Data Sheet

according to Regulation (EU) 2015/830

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

1.1. Product identifier

Product form : Mixture
Product name : ARDEX RG 12 1-6 Hardener
Product code : 24027; 24035; 24029; 24036; 24030; 24037; 24033; 24040; 24038; 24089; 24090; 24041; 24039

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 : Grouting Compounds

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.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]

Skin corrosion/irritation, Category 1, Sub-Category 1B H314

Serious eye damage/eye irritation, Category 1 H318

Skin sensitisation, Category 1 H317

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

Adverse physicochemical, human health and environmental effects

Causes serious eye irritation. May cause an allergic skin reaction.

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazardous ingredients

: Amines, Triethylentetramine; N-(2-aminoethyl)3-aminopropyltrimethoxysilane

Hazard statements (CLP)

: H314 - Causes severe skin burns and eye damage.
H317 - May cause an allergic skin reaction.

Precautionary statements (CLP)

: P280 - Wear eye protection, protective gloves.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove

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EUH-statements	: contact lenses, if present and easy to do. Continue rinsing. : EUH205 - Contains epoxy constituents. May produce an allergic reaction. : EUH210 - Safety data sheet available on request.
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

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

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]
Amines	(REACH-no) 01-2119487919-13	5 - 10	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
N-[3-(Trimethoxysilyl)propyl]ethylenediamine	(CAS-No.) 1760-24-3 (EC-No.) 217-164-6 (REACH-no) 01-2119970215-39	< 5	Skin Sens. 1, H317 Eye Dam. 1, H318 STOT SE 3, H335

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	: Move to fresh air. If symptoms persist call a doctor.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation or rash 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. If eye irritation persists: Get medical advice/attention.
First-aid measures after ingestion	: Rinse mouth. Get medical advice/attention.

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

Symptoms/effects after inhalation	: None reasonably foreseeable.
Symptoms/effects after skin contact	: May cause an allergic skin reaction.
Symptoms/effects after eye contact	: Severe eye irritation.
Symptoms/effects after ingestion	: Irritating to the respiratory system and mucous membranes.

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	: All extinguishing media allowed.
Unsuitable extinguishing media	: None.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Heat may cause pressure rise with explosion of tanks/drums.
Hazardous decomposition products in case of fire	: Carbon dioxide. Carbon monoxide.

5.3. Advice for firefighters

Precautionary measures fire	: Evacuate area.
Firefighting instructions	: Contain the extinguishing fluids by bunding. Do not allow run-off from fire-fighting to enter drains or water courses.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

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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 : Wear personal protective equipment.

Emergency procedures : Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection. Protective gloves. Safety glasses. For further information refer to section 8: "Exposure controls/personal protection".

Emergency procedures : Do not allow to enter drains or water courses.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material.

Other information : Place in a suitable container for disposal in accordance with the waste regulations (see Section 13).

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : See Section 8. When mixing the components: Please note the safety data sheet for the second component.

Precautions for safe handling : Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Use only in well ventilated areas. Do not leave mixed material in the container - hardening can lead to strong heat development.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation.

Storage conditions : Keep container closed when not in use. Store in original container.

Incompatible products : Oxidizing agent. Strong bases. Strong acids.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Gloves.



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Colour : Various colours.

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Odour	: Amine-like.
Odour threshold	: No data available
pH	: 11
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C
Auto-ignition temperature	: > 350 °C
Decomposition temperature	: > 200 °C
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.9 g/cm³
Solubility	: partly soluble.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 300 mPa·s
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

SECTION 10: Stability and reactivity

10.1. Reactivity

Product is not explosive.

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

None.

10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

N-[3-(Trimethoxysilyl)propyl]ethylenediamine (1760-24-3)	
LD50 oral rat	2295 mg/kg bodyweight (EPA OPPTS 870.1100: Acute Oral Toxicity, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 2000 mg/kg bodyweight (EPA OPPTS 870.7600, 24 h, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat	1.49 – 2.44 mg/l (EPA OPPTS 870.1300: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))

Skin corrosion/irritation	: Causes severe skin burns. pH: 11
Serious eye damage/irritation	: Causes serious eye damage. pH: 11
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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Reproductive toxicity	: Not classified
STOT-single exposure	: Not classified
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified

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Viscosity, kinematic	333.333 mm²/s

SECTION 12: Ecological information

12.1. Toxicity

N-[3-(Trimethoxysilyl)propyl]ethylenediamine (1760-24-3)	
LC50 - Fish [1]	597 mg/l (EU Method C.1, 96 h, Danio rerio, Semi-static system, Fresh water, Experimental value, GLP)
EC50 - Crustacea [1]	81 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 algae	8.8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Selenastrum capricornutum, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

N-[3-(Trimethoxysilyl)propyl]ethylenediamine (1760-24-3)	
Persistence and degradability	Biodegradability in soil: no data available. Not readily biodegradable in water.

12.3. Bioaccumulative potential

N-[3-(Trimethoxysilyl)propyl]ethylenediamine (1760-24-3)	
Partition coefficient n-octanol/water (Log Pow)	-0.3 (QSAR, 20 °C)
Bioaccumulative potential	Not bioaccumulative.

12.4. Mobility in soil

N-[3-(Trimethoxysilyl)propyl]ethylenediamine (1760-24-3)	
Ecology - soil	Adsorbs into the soil.

12.5. Results of PBT and vPvB assessment

Component	
N-[3-(Trimethoxysilyl)propyl]ethylenediamine (1760-24-3)	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

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	: Avoid release to the environment.
European List of Waste (LoW) code	: 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 $\geq 0,1 \%$ / SCL

Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

Regulatory reference : WGK 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)
Storage class (LGK, TRGS 510) : LGK 12 - Non-combustible liquids
Hazardous Incident Ordinance (12. BImSchV) : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)
EMICODE : EC 1 R

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out

SECTION 16: Other information

Abbreviations and acronyms:

ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DNEL	Derived-No Effect Level
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative

Data sources : REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.

Full text of H- and EUH-statements:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH210	Safety data sheet available on request.

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Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H412	Harmful to aquatic life with long lasting effects.
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Sens. 1	Skin sensitisation, Category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

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.