



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

1.1. Product identifier

Product form : Mixture
Product name : ARDEX GF 3-1 K
Product code : 7659, 7660, 7661

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 : Installation of Natural Stones

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 Baustoff GmbH

Hürmer Str. 40

A-3382 Loosdorf - Österreich

T +43/2754/7021-0 - F +43/2754/2490

E-mail address of competent person responsible for the SDS : produktion@ardex.at

1.4. Emergency telephone number

Emergency number : +43-(0)1-4064343 (Vergiftungsinformationszentrale Österreich)

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 : EUH208 - Contains cobalt(II) 2-ethylhexanoate. 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

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according to Regulation (EU) 2015/830

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
quartz, conc respirable crystalline silica < 1 % substance with a Community workplace exposure limit	(CAS-No.) 14808-60-7 (EC-No.) 238-878-4	95 - ≤ 100	Not classified
triethoxyvinylsilane	(CAS-No.) 78-08-0 (EC-No.) 201-081-7	1 - < 5	Flam. Liq. 3, H226
cobalt(II) 2-ethylhexanoate	(CAS-No.) 136-52-7 (EC-No.) 205-250-6	< 0,1	Repr. 2, H361f Skin Sens. 1A, H317 Eye Irrit. 2, H319 Aquatic Acute 1, H400 Aquatic Chronic 3, H412

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 : If symptoms persist, consult a doctor.
- First-aid measures after inhalation : Allow affected person to breathe fresh air. Obtain medical attention if breathing difficulty persists. Ensure there is adequate ventilation.
- First-aid measures after skin contact : After contact with skin, wash immediately with plenty of water and soap. Take off immediately all contaminated clothing and wash it before reuse. 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.
- First-aid measures after ingestion : Rinse mouth thoroughly with water. Give water to drink.

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

- Symptoms/effects : No additional information available.

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 :
- Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Non oxidizing.

5.3. Advice for firefighters

- Protection during firefighting : Self-contained breathing apparatus.
- Other information : Do not allow run-off from fire fighting to enter drains or water courses. Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Avoid dust formation. Ensure adequate air ventilation. Do not breathe dust.

6.1.1. For non-emergency personnel

- Protective equipment : See Section 7. See Section 8. Wear personal protective equipment.

6.1.2. For emergency responders

6.2. Environmental precautions

Do not allow to enter drains or water courses.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Mechanically recover the product. For further information refer to section 13.

6.4. Reference to other sections

See Section 7. See Section 8. See Section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : No special measures required.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Avoid breathing dust, mist or spray.

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7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Keep container tightly closed.
Information on mixed storage : No special measures required.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

quartz, conc respirable crystalline silica<1 % (14808-60-7)		
EU	Local name	Silica crystalline (Quartz)
EU	IOEL TWA	0.1 mg/m ³ (Respirable fraction)
EU	Remark	(Year of adoption 2003)
Austria	Local name	Quarz (Alveolarstaub)
Austria	MAK (OEL TWA)	0.15 mg/m ³ (A) (gilt als Jahresmittelwert bis 31.12.2013; der Beurteilungszeitraum beträgt ein Jahr) 0.05 mg/m ³ (A)
Austria	Remark	Krebserzeugend: III C

cobalt(II) 2-ethylhexanoate (136-52-7)		
DNEL/DMEL (Workers)		
Long-term - local effects, inhalation	235.1 µg/m ³	
DNEL/DMEL (General population)		
Long-term - systemic effects, oral	55.8 µg/kg dw	
Long-term - local effects, inhalation	37 µg/m ³	
PNEC (Water)		
PNEC aqua (freshwater)	0.6 µg/l	
PNEC aqua (marine water)	2.36 µg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	9.5 mg/kg dw	
PNEC sediment (marine water)	9.5 mg/kg dw	
PNEC (Soil)		
PNEC soil	10.9 mg/kg dw	
PNEC (STP)		
PNEC sewage treatment plant	0.37 mg/l	

triethoxyvinylsilane (78-08-0)		
DNEL/DMEL (Workers)		
Long-term - systemic effects, dermal	10.1 mg/kg bw/day	
Long-term - systemic effects, inhalation	17.8 mg/m ³	
DNEL/DMEL (General population)		
Long-term - systemic effects, oral	4.99 mg/kg bw/day	
Long-term - systemic effects, inhalation	4.34 mg/m ³	
Long-term - systemic effects, dermal	4.99 mg/kg bw/day	
PNEC (Water)		
PNEC aqua (freshwater)	0.56 mg/l	
PNEC aqua (marine water)	0.056 mg/l	
PNEC (Sediment)		
PNEC sediment (freshwater)	2.06 mg/kg dw	
PNEC sediment (marine water)	0.206 mg/kg dw	
PNEC (Soil)		
PNEC soil	0.085 mg/kg dw	
PNEC (STP)		
PNEC sewage treatment plant	10 mg/l	

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Materials for protective clothing:

Wear suitable protective clothing

Hand protection:

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Wear suitable gloves. Choosing the proper glove is a decision that depends not only on the type of material, but also on other quality features, which differ for each manufacturer. Time of penetration is to be checked with the glove producer. protective gloves

Eye protection:

In case of dust production: protective goggles

Skin and body protection:

Wear proper protective equipment

Respiratory protection:

In case of inadequate ventilation wear respiratory protection.



Other information:

Observe general hygiene measures when handling chemicals. Wash hands before breaks and after work. Take off contaminated clothes. Do not eat, drink or smoke when using this product.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Solid
Appearance	: sand.
Colour	: Grey.
Odour	: Fruity.
Odour threshold	: No data available
pH	: 7
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	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: < 0.01 hPa
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 1.65 g/cm³
Solubility	: Material insoluble in water. Water: unlöslich
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

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reactions known under normal conditions of use.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known.

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10.4. Conditions to avoid

None.

10.5. Incompatible materials

No data available.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

cobalt(II) 2-ethylhexanoate (136-52-7)	
LD50 oral rat	3129 mg/kg bodyweight (OECD 425: Acute Oral Toxicity: Up-and-Down Procedure, Rat, Female, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg bodyweight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Weight of evidence, Dermal)

Skin corrosion/irritation : Not classified
pH: 7

Serious eye damage/irritation : Not classified
pH: 7

Respiratory or skin sensitisation : Not classified

Additional information : May produce an allergic reaction.

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

SECTION 12: Ecological information

12.1. Toxicity

cobalt(II) 2-ethylhexanoate (136-52-7)	
LC50 - Fish [1]	1.512 mg/l (ASTM, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
LC50 - Fish [2]	54.1 mg/l (ASTM, 96 h, Pimephales promelas, Flow-through system, Fresh water, Read-across)
EC50 - Other aquatic organisms [1]	1703 mg/kg dwt (ASTM, 28 day(s), Tubifex tubifex, Semi-static system, Fresh water, Read-across, Reproduction)
ErC50 algae	144 µg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)

triethoxyvinylsilane (78-08-0)	
LC50 - Fish [1]	> 92.2 mg/l (Equivalent or similar to OECD 203, 96 h, Oryzias latipes, Semi-static system, Fresh water, Experimental value, Lethal)
EC50 - Crustacea [1]	168.7 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
EC50 72h - Algae [1]	> 89 mg/l (Scenedesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)

12.2. Persistence and degradability

ARDEX GF 3-1 K	
Persistence and degradability	No data available.
quartz, conc respirable crystalline silica<1 % (14808-60-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)
cobalt(II) 2-ethylhexanoate (136-52-7)	
Persistence and degradability	Readily biodegradable in water.
triethoxyvinylsilane (78-08-0)	
Persistence and degradability	Not readily biodegradable in water.

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12.3. Bioaccumulative potential

ARDEX GF 3-1 K	
Bioaccumulative potential	No data available.
quartz, conc respirable crystalline silica<1 % (14808-60-7)	
Bioaccumulative potential	No bioaccumulation data available.
cobalt(II) 2-ethylhexanoate (136-52-7)	
BCF - Fish [1]	1.2 (131 day(s), Seriola quinqueradiata, Static system, Salt water, Read-across, Fresh weight)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
triethoxyvinylsilane (78-08-0)	
Partition coefficient n-octanol/water (Log Pow)	3 (QSAR, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

ARDEX GF 3-1 K	
Ecology - soil	No data available.
quartz, conc respirable crystalline silica<1 % (14808-60-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.
cobalt(II) 2-ethylhexanoate (136-52-7)	
Surface tension	64 mN/m (20 °C, 1 g/l, OECD 115: Surface Tension of Aqueous Solutions)
Ecology - soil	No (test)data on mobility of the substance available.
triethoxyvinylsilane (78-08-0)	
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	-0.02 (log Koc, Estimated value)

12.5. Results of PBT and vPvB assessment

Component	
quartz, conc respirable crystalline silica<1 % (14808-60-7)	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
triethoxyvinylsilane (78-08-0)	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
cobalt(II) 2-ethylhexanoate (136-52-7)	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

12.6. Other adverse effects

Additional information : Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Do not discharge into drains or the environment. Disposal must be done according to official regulations.
Product/Packaging disposal recommendations	: Clean with water. Do not dispose of the packaging without first carrying out the necessary cleaning.
European List of Waste (LoW) code	: 08 01 12 - waste paint and varnish other than those mentioned in 08 01 11 17 09 04 - mixed construction and demolition wastes other than those mentioned in 17 09 01, 17 09 02 and 17 09 03 Uncleaned packagings 08 01 99 - wastes not otherwise specified

SECTION 14: Transport information

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

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.2. UN proper shipping name				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.3. Transport hazard class(es)				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
14.4. Packing group				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated

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ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Not regulated	Not regulated	Not regulated	Not regulated	Not regulated
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Not regulated

- Transport by sea

Not regulated

- Air transport

Not regulated

- Inland waterway transport

Not regulated

- Rail transport

Not regulated

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 additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
EUH208	Contains cobalt(II) 2-ethylhexanoate. May produce an allergic reaction.
EUH210	Safety data sheet available on request.
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
H226	Flammable liquid and vapour.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H361f	Suspected of damaging fertility.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
Repr. 2	Reproductive toxicity, Category 2
Skin Sens. 1A	Skin sensitisation, category 1A

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.