



Safety Data Sheet

according to Regulation (EU) 2015/830

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7/14/2021

Version: 4.0

www.ardex.de

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

1.1. Product identifier

Product form : Mixture
Product name : Pandomo Studio
Product code : 32768

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 : PANDOMO

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.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]

Serious eye damage/eye irritation, Category 1 H318

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

Adverse physicochemical, human health and environmental effects

Causes skin irritation. Causes serious eye damage.

2.2. Label elements

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

Hazard pictograms (CLP) :



GHS05

Signal word (CLP) : Danger
Hazardous ingredients : Portland cement
Hazard statements (CLP) : H318 - Causes serious eye damage.
Precautionary statements (CLP) : P102 - Keep out of reach of children.
P261 - Avoid breathing dust.
P280 - Wear eye protection, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
EUH-statements : EUH212 - Warning! Hazardous respirable dust may be formed when used. Do not breathe

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Extra phrases : dust.
: 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 : The product contains chromate reducer, whereby the content of water-soluble chromium (VI) is less than 0.0002%.
With proper storage (dry) and consumption within the specified storage time, a sensitizing effect of the cement / binder by contact with skin cannot occur (H317 or EUH203 can therefore be omitted). Measurement results show that the proportion of TiO₂ particles with an aerodynamic diameter < 10 µm is significantly below 1 %.

PBT: not relevant – no registration required

vPvB: not relevant – no registration required

Contains no PBT/vPvB substances ≥ 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]
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
Portland cement	(CAS-No.) 65997-15-1 (EC-No.) 266-043-4	> 3 - < 10	Skin Sens. 1, H317 Eye Dam. 1, H318 Skin Irrit. 2, H315 STOT SE 3, H335

Comments : Chromium (VI) compounds < 2 ppm
Measurement results show that the proportion of TiO₂ particles with an aerodynamic diameter < 10 µm is significantly below 1 %.

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. Do not induce vomiting.

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

Symptoms/effects after skin contact : Irritation.
Symptoms/effects after eye contact : Serious damage to eyes.

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.
Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : No fire hazard.
Explosion hazard : None.

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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 Section 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.

6.4. Reference to other sections

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : See Section 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. The product contains chromate reducer, whereby the content of water-soluble chromium (VI) is less than 0.0002%.
With proper storage (dry) and consumption within the specified storage time, a sensitizing effect of the cement / binder by contact with skin cannot occur (H317 or EUH203 can therefore be omitted).
Incompatible materials : Aluminium. ammonium salts. Acids.
Storage area : dry.

7.3. Specific end use(s)

No additional information available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Pandomo Studio		
Germany	Local name	Allgemeiner Staubgrenzwert - Alveolengängige/Einatembare Fraktion
Germany	AGW (OEL TWA) [1]	1.25 mg/m ³ (A) 10 mg/m ³ (E)
Germany	Remark	AGS;DFG

Exposure limit values for the other components

calcium sulfate (7778-18-9)			
Germany	AGW (OEL TWA) [1]	6 mg/m ³ (A)	
Germany	Remark	DFG - Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe der DFG (MAK-Kommission)	

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calcium sulfate (7778-18-9)	
DNEL/DMEL (Workers)	
Acute - systemic effects, inhalation	5082 mg/m ³ (Experimental value)
Long-term - systemic effects, inhalation	21.17 mg/m ³ (Experimental value)
DNEL/DMEL (General population)	
Acute - systemic effects, inhalation	3811 mg/m ³ (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 ³ (Experimental value)
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

calcium carbonate (471-34-1)	
DNEL/DMEL (Workers)	
Long-term - local effects, inhalation	6.36 mg/m ³
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 ³
PNEC (STP)	
PNEC sewage treatment plant	100 mg/l

8.2. Exposure controls

Appropriate engineering controls:

Ensure good ventilation of the work station.

Personal protective equipment:

Safety glasses. Dust formation: dust mask. Gloves.

Hand protection:

Protective gloves. The following materials are suitable for protective gloves:
Nitrile impregnated cotton gloves (layer thickness of about 0,15 mm).

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
			0,15		

Eye protection:

Wear closed safety glasses

Skin and body protection:

Wear proper protective equipment

Respiratory protection:

If the occupational exposure limit is exceeded:



Environmental exposure controls:

Avoid release to the environment.

Other information:

Use care during processing to minimize generation of dust. Avoid creating or spreading dust.

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	: 11.5 Aqueous solution
Relative evaporation rate (butylacetate=1)	: No data available

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Melting point	: > 1250 °C
Freezing point	: Not applicable
Boiling point	: Not applicable
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 ³
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	: Not applicable
Explosive properties	: None.
Oxidising properties	: None.
Explosive limits	: Not applicable

9.2. Other information

VOC content	: < 3 %
Bulk density	: 900 – 1300 kg/m ³

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. ammonium salts. Aluminium.

10.6. Hazardous decomposition products

No hazardous decomposition products known.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

titanium dioxide; [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	: Not classified pH: 11.5 Aqueous solution
Serious eye damage/irritation	: Causes serious eye damage. pH: 11.5 Aqueous solution
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

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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.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	
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)

Portland cement (65997-15-1)	
LC50 - Fish [1]	> 1000 mg/l (96 h, Pisces)

12.2. Persistence and degradability

Pandomo Studio	
Persistence and degradability	Not applicable. Inorganic Particulate Substances.
BOD (% of ThOD)	Not applicable

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable (inorganic)
ThOD	Not applicable (inorganic)

Portland cement (65997-15-1)	
Persistence and degradability	Biodegradability: not applicable.
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

Pandomo Studio	
Bioaccumulative potential	No bioaccumulation.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	
Bioaccumulative potential	Not bioaccumulative.

Portland cement (65997-15-1)	
Bioaccumulative potential	Bioaccumulation: not applicable.

12.4. Mobility in soil

Pandomo Studio	
Ecology - soil	None.

titanium dioxide; [in powder form containing 1 % or more of particles with aerodynamic diameter $\leq 10 \mu\text{m}$] (13463-67-7)	
Surface tension	No data available in the literature
Ecology - soil	Low potential for mobility in soil.

Portland cement (65997-15-1)	
Ecology - soil	No (test)data on mobility of the substance available.

12.5. Results of PBT and vPvB assessment

Pandomo Studio	
PBT: not relevant – no registration required	
vPvB: not relevant – no registration required	

Component	
Portland cement (65997-15-1)	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

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.

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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
14.1. UN number		
Not applicable	Not applicable	Not applicable
14.2. UN proper shipping name		
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
14.4. Packing group		
Not applicable	Not applicable	Not applicable
14.5. Environmental hazards		
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

VOC content : < 3 %

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- Other information, restriction and prohibition regulations : 1. Cement and cement-containing mixtures shall not be placed on the market, or used, if they contain, when hydrated, more than 2 mg/kg (0,0002 %) soluble chromium VI of the total dry weight of the cement.
2. If reducing agents are used, then without prejudice to the application of other Community provisions on the classification, packaging and labelling of substances and mixtures, suppliers shall ensure before the placing on the market that the packaging of cement or cement-containing mixtures is visibly, legibly and indelibly marked with information on the packing date, as well as on the storage conditions and the storage period appropriate to maintaining the activity of the reducing agent and to keeping the content of soluble chromium VI below the limit indicated in paragraph 1.
3. By way of derogation, paragraphs 1 and 2 shall not apply to the placing on the market for, and use in, controlled closed and totally automated processes in which cement and cement-containing mixtures are handled solely by machines and in which there is no possibility of contact with the skin.
4. The standard adopted by the European Committee for Standardization (CEN) for testing the water-soluble chromium (VI) content of cement and cement-containing mixtures shall be used as the test method for demonstrating conformity with paragraph 1.
5. Leather articles coming into contact with the skin shall not be placed on the market where they contain chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of the leather.
6. Articles containing leather parts coming into contact with the skin shall not be placed on the market where any of those leather parts contains chromium VI in concentrations equal to or greater than 3 mg/kg (0,0003 % by weight) of the total dry weight of that leather part.
7. Paragraphs 5 and 6 shall not apply to the placing on the market of second-hand articles which were in end-use in the Union before 1 May 2015.

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)
- EMICODE : EC 1 PLUS - very low emission
- TA Luft : 5.2.1 Total Dust, including Micro Dust
- National Rules and Recommendations : TRGS 402: Identification and Assessment of the Risks from Activities involving Hazardous Substances: Inhalation Exposure
TRGS 510: Storage of hazardous substances in non-stationary containers
TRGS 900: Occupational Exposure Limits

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Full text of H- and EUH-statements:

Carc. 2	Carcinogenicity, Category 2
EUH212	Warning! Hazardous respirable dust may be formed when used. Do not breathe dust.
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
Skin Irrit. 2	Skin corrosion/irritation, Category 2
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.