

PANDOMO EP PATCH Hardener



Safety Data Sheet

according to Regulation (EU) 2015/830

Date of issue: 3/6/2017 Revision date: 7/31/2018

Supersedes: 7/5/2017

Version: 1.2

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 EP PATCH Hardener
Product code : 25550

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 : PANDOMO
Substrate Preparation

1.2.2. Uses advised against

Restrictions on use : no spraying

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
E-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	Mathildenstraße 1 79106 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]

Acute toxicity (oral), Category 4 H302
Skin corrosion/irritation, Category 1A H314
Serious eye damage/eye irritation, Category 1 H318
Skin sensitisation, Category 1 H317
Hazardous to the aquatic environment — Chronic Hazard, Category 3 H412
Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP) :



Signal word (CLP) :

Danger

Hazardous ingredients :

benzyl alcohol; Formaldehyde, oligomeric reaction products with 3,3'-iminodi(propylamine); Isophorondiamine

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Hazard statements (CLP)	: H302 - Harmful if swallowed. H314 - Causes severe skin burns and eye damage. H317 - May cause an allergic skin reaction. H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements (CLP)	: P102 - Keep out of reach of children. P280 - Wear protective gloves, eye protection. P302+P352 - IF ON SKIN: Wash with plenty of soap and water. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P301+P310 - IF SWALLOWED: Immediately call a doctor. P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation
EUH-statements	: EUH205 - Contains epoxy constituents. May produce an allergic reaction.

2.3. Other hazards

No additional information available

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]
Isophorondiamine	(CAS-No.) 2855-13-2 (EC-No.) 220-666-8 (EC Index-No.) 612-067-00-9 (REACH-no) 01-2119514687-32	40 - 45	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Chronic 3, H412
benzyl alcohol	(CAS-No.) 100-51-6 (EC-No.) 202-859-9 (EC Index-No.) 603-057-00-5	30 - 40	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation), H332 Acute Tox. 3 (Inhalation:vapour), H331
Formaldehyde, oligomeric reaction products with 3,3'-iminodi(propylamine)	(CAS-No.) 161278-35-9 (EC-No.) 500-626-9	25 - 30	Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317

Full text of H-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.

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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.

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 Heading 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Additional hazards when processed : See Heading 8.
Precautions for safe handling : Avoid contact with skin and eyes. Wear personal protective equipment. Avoid breathing dust/fume/gas/mist/vapours/spray. Comply with instructions for use (refer to technical sheet).
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

benzyl alcohol (100-51-6)		
Germany	TRGS 900 Local name	Benzylalkohol
Germany	Occupational exposure limit value (mg/m ³)	22 mg/m ³
Germany	Occupational exposure limit value (ppm)	5 ppm
Germany	TRGS 900 Remark	DFG;H;Y;11

8.2. Exposure controls

Appropriate engineering controls:

- Ensure good ventilation of the work station.

Personal protective equipment:

- Respiratory protection not required in normal conditions. In case of splash hazard: safety glasses. Gloves.

Hand protection:

Type	Material	Permeation	Thickness (mm)	Penetration	Standard
Disposable gloves	Nitrile rubber (NBR)	1 (> 10 minutes)	0,1		

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Reusable gloves	Nitrile rubber (NBR), Butyl rubber	6 (> 480 minutes)	0,5		EN ISO 374
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Eye protection:

Type	Use	Characteristics	Standard
Safety goggles	Safety goggles recommended during refilling, Wear security glasses which protect from splashes	With side shields, Plastic	

Skin and body protection:

Uses in Coatings. . Wear rubber boots

Type	Standard
Safety shoes, Skin protection appropriate to the conditions of use should be provided, Long sleeved protective clothing	

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Device	Filter type	Condition	Standard
Gas filters	A1	Vapour protection	



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: light yellow.
Odour	: Amines.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: > 100 °C
Flash point	: 116 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
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	: 0.99 g/cm ³
Solubility	: Material insoluble in water.
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: 40 - 80 cP
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Product is not explosive.

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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 : Harmful if swallowed.

ATE CLP (oral)	955.846 mg/kg bodyweight
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benzyl alcohol (100-51-6)	
LD50 oral rat	1620 mg/kg bw/day (Rat, Male, Experimental value, Oral)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal)
LC50 inhalation rat (mg/l)	8.8 mg/l/4h

Isophorondiamine (2855-13-2)	
LD50 oral rat	1030 mg/kg (Equivalent or similar to OECD 401, Rat, Male, 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 (mg/l)	> 5.01 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 14 day(s))

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Causes serious eye damage.

Respiratory or skin sensitisation : May cause an allergic skin 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

benzyl alcohol (100-51-6)	
LC50 fish 1	460 mg/l (EPA OPP 72-1, 96 h, Pimephales promelas, Static system, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	230 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Fresh water, Experimental value, GLP)
ErC50 (algae)	770 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)

Isophorondiamine (2855-13-2)	
LC50 fish 1	110 mg/l (EU Method C.1, 96 h, Leuciscus idus, Semi-static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	23 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h algae (1)	37 mg/l (EU Method C.3, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

12.2. Persistence and degradability

benzyl alcohol (100-51-6)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.6 g O ₂ /g substance
Chemical oxygen demand (COD)	2.4 g O ₂ /g substance

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benzyl alcohol (100-51-6)	
ThOD	2.5 g O ₂ /g substance

Isophorondiamine (2855-13-2)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

benzyl alcohol (100-51-6)	
Log Pow	1 - 1.1 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

Isophorondiamine (2855-13-2)	
BCF other aquatic organisms 1	3.16 (BCFWIN, QSAR)
Log Pow	0.99 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

benzyl alcohol (100-51-6)	
Surface tension	39 mN/m (20 °C)
Ecology - soil	No (test)data on mobility of the substance available.

Isophorondiamine (2855-13-2)	
Surface tension	3.47 N/m (23 °C)
Log Koc	2.97 (log Koc, QSAR)
Ecology - soil	Low potential for adsorption in soil.

12.5. Results of PBT and vPvB assessment

Component	
benzyl alcohol (100-51-6)	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
Isophorondiamine (2855-13-2)	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

No additional information available






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 / RID / IMDG / IATA / ADN

ADR	IMDG	IATA	ADN	RID
14.1. UN number				
2735	2735	2735	2735	2735
14.2. UN proper shipping name				
AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin)	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin)	Amines, liquid, corrosive, n.o.s. (Isophorondiamin)	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin)	AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin)
Transport document description				
UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin), 8, III, (E)	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin), 8, III	UN 2735 Amines, liquid, corrosive, n.o.s. (Isophorondiamin), 8, III	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin), 8, III	UN 2735 AMINES, LIQUID, CORROSIVE, N.O.S. (Isophorondiamin), 8, III
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
III	III	III	III	III

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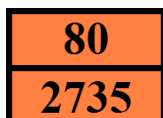
according to Regulation (EU) 2015/830

ADR	IMDG	IATA	ADN	RID
14.5. Environmental hazards				
Dangerous for the environment : No	Dangerous for the environment : No Marine pollutant : No	Dangerous for the environment : No	Dangerous for the environment : No	Dangerous for the environment : No
No supplementary information available				

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : C7
Limited quantities (ADR) : 5L
Excepted quantities (ADR) : E1
Transport category (ADR) : 3
Orange plates :



Tunnel restriction code (ADR) : E

- Transport by sea

Special provisions (IMDG) : 223, 274
Limited quantities (IMDG) : 5 L
EmS-No. (Fire) : F-A
EmS-No. (Spillage) : S-B
Segregation (IMDG) : SG35

- Air transport

PCA Excepted quantities (IATA) : E1
PCA Limited quantities (IATA) : Y841
PCA limited quantity max net quantity (IATA) : 1L
PCA max net quantity (IATA) : 5L

- Inland waterway transport

Classification code (ADN) : C7
Limited quantities (ADN) : 5 L
Excepted quantities (ADN) : E1

- Rail transport

Classification code (RID) : C7
Limited quantities (RID) : 5L
Excepted quantities (RID) : E1
Transport category (RID) : 3

14.7. Transport in bulk according to Annex II of Marpol and the IBC Code

Not applicable

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

Germany

Reference to AwSV : Water hazard class (WGK) 2, Significantly hazardous to water (Classification according to AwSV, Annex 1)
Storage class (LGK) : LGK 10 - Combustible liquids
Employment restrictions : Praxisleitfaden für den Umgang mit Epoxidharzen, herausgegeben von der Berufsgenossenschaft der Bauwirtschaft (www.bgbau.de/gisbau)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

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GISCODE : RE1_ALT - Epoxy resin products, solvent-free, sensitising
GEV - EMICODE : EC 1 R PLUS

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Skin sensitisation, 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.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H412	Harmful to aquatic life with long lasting effects.
EUH205	Contains epoxy constituents. May produce an allergic reaction.

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.