

# **Safety Data Sheet**

according to Regulation (EC) No. 1907/2006 (REACH) (This safety data sheet is for information only and does not comply with the official language requirements of article 31 (5) of REACH.)

**D1** 

Version number: 2.0 Revision: 29.09.2025
Replaces version of: 19.12.2022 (1) First version: 19.12.2022

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

# 1.1 Product identifier

Trade name <u>D1</u>

## 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Relevant identified uses**Building material

## 1.3 Details of the supplier of the safety data sheet

PAGEL Spezial-Beton GmbH & Co. KG

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Germany

Website: www.pagel.com

e-mail (competent person) schempershofe@pagel.de, labor@pagel.de

# 1.4 Emergency telephone number

Poison centre		
Country	Name	Telephone
international	GBK GmbH	Emergency CONTACT (24-Hour-Num- ber): +49 (0)6132-84463

# **SECTION 2: Hazards identification**

## 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008 (CLP)

Classific	Classification										
Section	Hazard class	Category	Hazard class and category	Hazard state- ment							
3.2	skin corrosion/irritation	2	Skin Irrit. 2	H315							
3.3	serious eye damage/eye irritation	1	Eye Dam. 1	H318							
3.8R	specific target organ toxicity - single exposure (respiratory tract irritation)	3	STOT SE 3	H335							

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For full text of abbreviations: see SECTION 16

#### 2.2 Label elements

#### Labelling according to Regulation (EC) No 1272/2008 (CLP)

Signal word danger

**Pictograms** 

**GHS05, GHS07** 



#### **Hazard statements**

H315 Causes skin irritation.
H318 Causes serious eye damage.
H335 May cause respiratory irritation.

#### **Precautionary statements**

**P101** If medical advice is needed, have product container or label at hand.

**P102** Keep out of reach of children.

**P261** Avoid breathing dust.

**P280** Wear protective gloves/protective clothing/eye protection/face protection.

**P302+P352** IF ON SKIN: Wash with plenty of soap and water.

**P304+P340** IF INHALED: Remove person to fresh air and keep comfortable for breathing. **P305+P351+P338** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing.

**P310** Immediately call a POISON CENTER/doctor.

**P501** Dispose of contents/container in accordance with local/regional/national/in-

ternational regulations.

Hazardous ingredients for labelling portland cement

flue dust, portland cement

**Additional labelling requirements** see section 15 of the safety data sheet

#### 2.3 Other hazards

The product develops an alkaline pH value with moisture and can cause irritation.

The product contains chromate reducer, which results in a content of water-soluble chrome (VI) of less than 0.0002 %. In case of improper storage (moisture ingress) or storage exceeding the recommended storage time, however, the contained chromate reducer may lose its effect prematurely and a sensitising effect of the cement/binder can occur upon skin contact (H317 and EUH203).

The preparation is low in chromium. The content of soluble chromium (VI) compounds has been lowered with agent to below 2 ppm in the cement portion. Proper storage and compliance with the expiration date is a prerequisite for the effectiveness of the chromate reduction.

#### Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of  $\geq 0.1\%$ .

## **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

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# **SECTION 3: Composition/information on ingredients**

## 3.1 Substances

Not relevant (mixture).

#### 3.2 Mixtures

## **Description of the mixture**

Hazardous ingredients										
Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes					
quartz	CAS No 14808-60-7 EC No 238-878-4	50 - < 75	-	-	IOELV					
portland cement	CAS No 65997-15-1 EC No 266-043-4	25 - < 50	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1B / H317 STOT SE 3 / H335		-					
flue dust, portland cement	CAS No 68475-76-3 EC No 270-659-9	1-<3	Skin Irrit. 2 / H315 Eye Dam. 1 / H318 Skin Sens. 1 / H317 STOT SE 3 / H335	!	-					

## Notes

IOELV: Substance with a community indicative occupational exposure limit value

#### **Remarks**

For full text of H-phrases: see SECTION 16

# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

#### **General notes**

Take off immediately all contaminated clothing.

In all cases of doubt, or when symptoms persist, seek medical advice.

In case of unconsciousness place person in the recovery position. Never give anything by mouth.

## Following inhalation

Provide fresh air.

If breathing is irregular or stopped, immediately seek medical assistance and start first aid actions. In case of respiratory tract irritation, consult a physician.

## Following skin contact

After contact with skin, take off immediately all contaminated clothing, and wash immediately with

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plenty of water and soap.

Brush off loose particles from skin.

If skin irritation or rash occurs: Get medical advice/attention.

## Following eye contact

Rinse immediately carefully and thoroughly with eye shower or water.

Remove contact lenses, if present and easy to do. Continue rinsing.

Get immediate medical advice/attention.

## Following ingestion

Rinse mouth immediately and drink plenty of water.

Do NOT induce vomiting.

Get immediate medical advice/attention.

#### Notes for the doctor

None.

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

Cough, pain, choking, and breathing difficulties.

Risk of serious damage to eyes.

## 4.3 Indication of any immediate medical attention and special treatment needed

None.

## **SECTION 5: Firefighting measures**

## 5.1 Extinguishing media

## Suitable extinguishing media

water, foam, alcohol resistant foam, fire extinguishing powder, co-ordinate firefighting measures to the fire surroundings

## Unsuitable extinguishing media

water jet

# 5.2 Special hazards arising from the substance or mixture

Hazardous decomposition products: Section 10.

## **Hazardous combustion products**

nitrogen oxides (NOx)

## 5.3 Advice for firefighters

Non-combustible.

Keep containers cool with water spray.

In case of fire and/or explosion do not breathe fumes.

Co-ordinate firefighting measures to the fire surroundings.

Do not allow firefighting water to enter drains or water courses.

Collect contaminated firefighting water separately.

Fight fire with normal precautions from a reasonable distance.

## Special protective equipment for firefighters

self-contained breathing apparatus (SCBA)

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## **SECTION 6: Accidental release measures**

# 6.1 Personal precautions, protective equipment and emergency procedures

## For non-emergency personnel

Remove persons to safety.

Ventilate affected area.

Control of dust.

Do not breathe dust.

Do not get in eyes, on skin, or on clothing.

Wearing of suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing.

## For emergency responders

Wear breathing apparatus if exposed to vapours/dust/spray/gases.

## 6.2 Environmental precautions

Keep away from drains, surface and ground water.

Retain contaminated washing water and dispose of it.

If substance has entered a water course or sewer, inform the responsible authority.

## 6.3 Methods and material for containment and cleaning up

# Advice on how to contain a spill

Covering of drains.

Take up mechanically.

## Advice on how to clean up a spill

Take up mechanically.

Collect spillage.

Vacuuming techniques.

Approved industrial vacuum cleaner.

## Other information relating to spills and releases

Place in appropriate containers for disposal.

Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5.

Personal protective equipment: see section 8.

Incompatible materials: see section 10. Disposal considerations: see section 13.

## **SECTION 7: Handling and storage**

## 7.1 Precautions for safe handling

Do not get in eyes, on skin, or on clothing.

Do not breathe dust.

### Measures to prevent fire as well as aerosol and dust generation

Use local and general ventilation.

Removal of dust deposits.

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## Specific notes/details

Dust deposits may accumulate on all deposition surfaces in a technical room.

When diluting, always stir the product into standing water.

#### Measures to protect the environment

Avoid release to the environment.

Do not empty into drains; dispose of this material and its container at hazardous or special waste collection point.

## Advice on general occupational hygiene

Do not eat, drink and smoke in work areas.

Remove contaminated clothing and protective equipment before entering eating areas.

Do not breathe dust.

Do not get in eyes, on skin, or on clothing.

Wash hands after use.

## 7.2 Conditions for safe storage, including any incompatibilities

## Flammability hazards

None.

## **Incompatible substances or mixtures**

Incompatible materials: see section 10.

## Protect against external exposure, such as

humidity

#### Consideration of other advice

Keep away from food, drink and animal feedingstuffs.

Store in a dry place. Store in a closed container.

## **Ventilation requirements**

Provision of sufficient ventilation.

## Specific designs for storage rooms or vessels

Keep container tightly closed and in a well-ventilated place.

## **Packaging compatibilities**

Keep only in original container.

Unsuitable materials: Aluminium.

# 7.3 Specific end use(s)

Industry or sector specific available guidance(s): GISCODE ZP 1.

# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

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Occup	Occupational exposure limit values (Workplace Exposure Limits)											
Coun try	Name of agent	CAS No	Iden- tifier	TWA [ppm]	TWA [mg/m³]	STEL [ppm]	STEL [mg/m³]	Nota- tion	Source			
DE	dust	-	MAK	-	4	-	-	i	DFG			
DE	dust	-	AGW	-	10	-	20	Y, i	TRGS 900			
DE	dust	-	AGW	-	1,25	-	2,5	Y, r	TRGS 900			
DE	dust	-	MAK	-	0,3	-	2,4	r, ex- uf-dust	DFG			
DE	Quarzhaltiger Staub	14808- 60-7	AGW	-	0,05	-	0,4	-	TRGS 559			
EU	crystalline silica	14808- 60-7	IOELV	-	0,1	-	-	dust, r	2017/2398/ EU			

#### Notation

dust as dust

ex-uf-dust except ultrafine particles

i inhalable fractionr respirable fraction

STEL short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-

minute period (unless otherwise specified)

TWA time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of

8 hours time-weighted average (unless otherwise specified)

Y a risk of developmental toxicity does not need to be expected if the occupational exposure limit value and the

biological limit value (BGW) are adhered to

## **Human health values**

Relevant DNELs of components										
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time				
flue dust, portland cement	68475-76-3	DNEL	0,84 mg/m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects				

#### **Environmental values**

Relevant PNECs of components										
Name of substance	CAS No	Endpoint	Threshold level	Environmental com- partment						
flue dust, portland cement	68475-76-3	PNEC	282 <sup>µg</sup> / <sub>l</sub>	freshwater						
flue dust, portland cement	68475-76-3	PNEC	28 <sup>µg</sup> / <sub>I</sub>	marine water						
flue dust, portland cement	68475-76-3	PNEC	6 <sup>mg</sup> / <sub>l</sub>	sewage treatment plant (STP)						

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Relevant PNECs of comp	onents

Name of substance	CAS No	Endpoint	Threshold level	Environmental com- partment
flue dust, portland cement	68475-76-3	PNEC	875 <sup>µg</sup> / <sub>kg</sub>	freshwater sediment
flue dust, portland cement	68475-76-3	PNEC	88 <sup>µg</sup> / <sub>kg</sub>	marine sediment
flue dust, portland cement	68475-76-3	PNEC	5 <sup>mg</sup> / <sub>kg</sub>	sediments

# 8.2 Exposure controls

# **Appropriate engineering controls**

Use local and general ventilation.

## **Individual protection measures (personal protective equipment)**

## **Eye/face protection**

Wear eye/face protection. (EN 166)

## **Hand protection**

Protective gloves							
Material	Material thickness	Breakthrough times of the glove material					
NBR: acrylonitrile-butadiene rubber	≥ 0,15 mm	no information available					

Wear suitable gloves.

Chemical protection gloves are suitable, which are tested according to EN 374.

Check leak-tightness/impermeability prior to use.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

## **Body protection**

Protective clothing for use against solid particulates.

(EN 13832, EN 340, EN 13034, EN 14605).

# **Respiratory protection**

In case of inadequate ventilation wear respiratory protection.

Particle filter device (DIN EN 143).

## **Environmental exposure controls**

Use appropriate container to avoid environmental contamination.

Keep away from drains, surface and ground water.

## **SECTION 9: Physical and chemical properties**

## 9.1 Information on basic physical and chemical properties

Physical state solid (powder)

**Colour** grey - white

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**Odour** characteristic

Melting point/freezing point >1.250 °C

Boiling point or initial boiling point and boiling not determined

range

**Flammability** non-combustible

Lower and upper explosion limit not applicable

(solid)

**Flash point** not applicable

Auto-ignition temperature not applicable

(solid)

**Decomposition temperature** not relevant

pH (value) alkaline

(suspension)

**Viscosity** not relevant

(solid)

Solubility(ies)

Water solubility not determined

Partition coefficient n-octanol/water (log value) not determined

**Vapour pressure** not determined

Density and/or relative density

Density  $2,6-3,2 \, {}^{g}/{}_{cm^3}$ 

Relative vapour density not relevant (solid)

Particle characteristics no data available

9.2 Other information

Information with regard to physical hazard

classes

hazard classes acc. to GHS (physical hazards):

not relevant

Other safety characteristics there is no additional information

# **SECTION 10: Stability and reactivity**

## 10.1 Reactivity

This material is not reactive under normal ambient conditions.

## 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of tem-

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perature and pressure.

See below "Conditions to avoid".

# 10.3 Possibility of hazardous reactions

Reactions with light metals to form hydrogen.

#### 10.4 Conditions to avoid

Protect from moisture.

## 10.5 Incompatible materials

acids, aluminium, ammonium compounds, metals

## 10.6 Hazardous decomposition products

Reasonably anticipated hazardous decomposition products produced as a result of use, storage, spill and heating are not known.

Hazardous combustion products: see section 5.

## **SECTION 11: Toxicological information**

# 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

## **Classification procedure**

If not otherwise specified the classification is based on:

Ingredients of the mixture (additivity formula).

# Classification according to GHS (1272/2008/EC, CLP)

# **Acute toxicity**

Test data are not available for the complete mixture.

Acute toxicity of components										
Name of substance	CAS No	Expos- ure route	End- point	Value	Species	Method	Source			
flue dust, portland ce- ment	68475-76-3	oral	LD0	>1.848 <sup>mg</sup> / <sub>kg</sub>	rat	OECD Guideline 422	ECHA			
flue dust, portland ce- ment	68475-76-3	dermal	LD0	≥2.000 <sup>mg</sup> / <sub>kg</sub>	rat	OECD Guideline 402	ECHA			
flue dust, portland ce- ment	68475-76-3	inhala- tion: dust/mis t	LC50	>6,04 <sup>mg</sup> / <sub>l</sub> /4h	rat	OECD Guideline 436	ECHA			

# Skin corrosion/irritation

Causes skin irritation.

# Serious eye damage/eye irritation

Causes serious eye damage.

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## Respiratory or skin sensitisation

#### Skin sensitisation

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## **Respiratory sensitisation**

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## Germ cell mutagenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## Carcinogenicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## Reproductive toxicity

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

## Specific target organ toxicity - single exposure

May cause respiratory irritation.

## Specific target organ toxicity - repeated exposure

Classification could not be established because:

Data are lacking, inconclusive, or conclusive but not sufficient for classification.

#### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

### 11.2 Information on other hazards

## **Endocrine disrupting properties**

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq$  0,1%.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

## **Aquatic toxicity (acute)**

Based on available data, the classification criteria are not met.

## Aquatic toxicity (acute) of components

Name of sub- stance	CAS No	Endpoint	Expos- ure time	Value	Species	Method	Source
flue dust, port- land cement	68475-76-3	ErC50	72 h	28,2 <sup>mg</sup> / <sub>l</sub>	algae (Desmod- esmus sub- spicatus)	OECD Guideline 201	ECHA
flue dust, port-	68475-76-3	ErC50	72 h	22,4 <sup>mg</sup> / <sub>l</sub>	algae (Desmod-	OECD	ECHA

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Name of sub- stance	CAS No	Endpoint	Expos- ure time	Value	Species	Method	Source
land cement					esmus sub- spicatus)	Guideline 201	

## **Aquatic toxicity (chronic)**

Based on available data, the classification criteria are not met.

# Aquatic toxicity (chronic) of components

Name of sub- stance	CAS No	Endpoint	Expos- ure time	Value	Species	Method	Source
flue dust, port- land cement	68475-76-3	EL10	21 d	68,2 <sup>mg</sup> / <sub>l</sub>	daphnia magna	OECD Guideline 211	ECHA

## 12.2 Persistence and degradability

## **Biodegradation**

No data available.

## **Persistence**

No data available.

## 12.3 Bioaccumulative potential

No data available.

## 12.4 Mobility in soil

No data available.

## 12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance at a concentration of  $\geq$  0,1%.

# 12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (ED) at a concentration of  $\geq 0.1\%$ .

## 12.7 Other adverse effects

No data available.

#### **Remarks**

Wassergefährdungsklasse, WGK (water hazard class): 2.

Keep away from drains, surface and ground water.

# **SECTION 13: Disposal considerations**

#### 13.1 Waste treatment methods

This material and its container must be disposed of as hazardous waste.

## Sewage disposal-relevant information

Do not empty into drains.

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## Waste treatment of containers/packagings

Completely emptied packages can be recycled.

Handle contaminated packages in the same way as the substance itself.

#### Remarks

Please consider the relevant national or regional provisions.

# **SECTION 14: Transport information**

14.1	UN number or ID number	not subject to transport regulations
14.2	UN proper shipping name	-
14.3	Transport hazard class(es)	-
14.4	Packing group	-
14.5	Environmental hazards	-
14.6	Special precautions for user	-
14.7	Maritime transport in bulk according to IMO	-

## **SECTION 15: Regulatory information**

instruments

# 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant provisions of the European Union (EU)

# Restrictions according to REACH, Annex XVII

Name	Name acc. to inventory	CAS No	Restriction	
flue dust, portland cement	chromium(VI) compounds	-	R47	

#### Legend

R47

- 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.

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#### Legend

- 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 enduse in the Union before 1 May 2015.

## List of substances subject to authorisation (REACH, Annex XIV) / SVHC - candidate list

Not all ingredients are listed.

#### **Seveso Directive**

Not assigned.

# Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

None of the ingredients are listed.

## Regulation on the marketing and use of explosives precursors

None of the ingredients are listed.

## **Regulation on drug precursors**

None of the ingredients are listed.

## Regulation on substances that deplete the ozone layer (ODS)

None of the ingredients are listed.

## Regulation concerning the export and import of hazardous chemicals (PIC)

None of the ingredients are listed.

## Regulation on persistent organic pollutants (POP)

None of the ingredients are listed.

## **National regulations (Germany)**

# Verordnung über Anlagen zum Umgang mit wassergefährdenden Stoffen (Ordinance on facilities for handling substances hazardous to water) (AwSV)

Wassergefährdungsklasse, WGK 2

(water hazard class) - classification acc. to annex 1 (AwSV)

## Technical instructions on air quality control (Germany)

Not assigned.

## Storage of hazardous substances in non-stationary containers (TRGS 510) (Germany)

Storage class (LGK) 13

(non-combustible solids)

# Chemikalien-Verbotsverordnung (Chemicals Prohibition Ordinance) - ChemVerbotsV

none of the ingredients are listed

## Other information

Observe employment restrictions for young people according to § 22 JArbSchG.

Observe occupational restrictions for mothers acc. to §§ 11 and 12 MuSchG!

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# 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this mixture by the supplier.

# **SECTION 16: Other information**

# Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)
1.1	Registration number (REACH): Not relevant (mixture)	-
1.1	CAS number: Not relevant (mixture)	-
1.4	-	Poison centre: change in the listing (table)
2.3	Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	Results of PBT and vPvB assessment:  Does not contain a PBT-/vPvB-substance at a concentration of ≥ 0,1%.
3.2	-	Hazardous ingredients: change in the listing (table)
8.1	-	Occupational exposure limit values (Workplace Exposure Limits): change in the listing (table)
8.1	-	Human health values Relevant DNELs of components of the mixture
8.1	-	Environmental values Relevant PNECs of components of the mixture
8.2	-	Body protection: Protective clothing for use against solid particulates. (EN 13832, EN 340, EN 13034, EN 14605).
14.1	UN number or ID number: not assigned	UN number or ID number: not subject to transport regulations

# **Abbreviations and acronyms**

Abbr.	Descriptions of used abbreviations
2017/2398/EU	Directive of the European Parliament and of the Council amending Directive 2004/37/EC on the pro- tection of workers from the risks related to exposure to carcinogens or mutagens at work
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement con- cerning the International Carriage of Dangerous Goods by Road)
AGW	Workplace exposure limit
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical sub-

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Abbr.	Descriptions of used abbreviations	
	stances)	
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures	
DFG	Deutsche Forschungsgemeinschaft MAK-und BAT-Werte-Liste, Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Wiley-VCH, Weinheim	
DGR	Dangerous Goods Regulations (see IATA/DGR)	
DNEL	Derived No-Effect Level	
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)	
ED	Endocrine disruptor	
EINECS	European Inventory of Existing Commercial Chemical Substances	
ELINCS	European List of Notified Chemical Substances	
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control	
Eye Dam.	Seriously damaging to the eye	
Eye Irrit.	Irritant to the eye	
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations	
IATA	International Air Transport Association	
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)	
IMDG	International Maritime Dangerous Goods Code	
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008	
IOELV	Indicative occupational exposure limit value	
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval	
LGK	Lagerklasse (storage class according to TRGS 510, Germany)	
NLP	No-Longer Polymer	
PBT	Persistent, Bioaccumulative and Toxic	
PNEC	Predicted No-Effect Concentration	
ppm	Parts per million	
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals	
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)	
Skin Corr.	Corrosive to skin	
Skin Irrit.	Irritant to skin	
Skin Sens.	Skin sensitisation	
STEL	Short-term exposure limit	

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Abbr.	Descriptions of used abbreviations	
STOT SE	Specific target organ toxicity - single exposure	
SVHC	Substance of Very High Concern	
TRGS	Technische Regeln für Gefahrstoffe (technical rules for hazardous substances, Germany)	
TRGS 900	Arbeitsplatzgrenzwerte (TRGS 900)	
TWA	Time-weighted average	
vPvB	Very Persistent and very Bioaccumulative	

# Key literature references and sources for data

Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures, Version 2023/707/EU.

Regulation (EC) No. 1907/2006 (REACH), amended by 2020/878/EU

Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN).

International Maritime Dangerous Goods Code (IMDG).

Dangerous Goods Regulations (DGR) for the air transport (IATA).

## **Classification procedure**

Physical and chemical properties.

Health hazards.

Environmental hazards.

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

## List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H335	May cause respiratory irritation.

## Responsible for the safety data sheet

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#### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

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