Safety Data Sheet
according to Regulation (EC) No. 1907/2006 (REACH)

Trade name :	Precoat-Pulver PE 5380 (SORTE 5380)		
Revision date :	12.06.2018	**Version (Revision) :**	7.0.0 (6.0.1)
Print date :	12.06.2018		

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

1.1 Product identifier

Precoat-Pulver PE 5380 (SORTE 5380)

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

Powder coating. Intended purpose see technical data sheet.

Relevant identified uses

Product Categories [PC]

PC9 - Coatings and paints, fillers, putties, thinners

Remark

The product is intended for professional use.

1.3 Details of the supplier of the safety data sheet

Supplier (manufacturer/importer/only representative/downstream user/distributor)

Brillux GmbH & Co. KG, Industrielack
www.brillux-industrielack.de

Street : Otto-Hahn-Straße 14

Postal code/city : D-59423 Unna

Telephone : +49 2303 8805-0

Telefax : +49 2303 8805-119

Information contact : E-mail address of the competent person for safety data sheets: sdb@brillux-industrielack.de

1.4 Emergency telephone number

Giftinformationszentrum-Nord (poisons centre), consultation in german and english
Telephone: +49 551 19 24 0

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

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

Aquatic Chronic 3 ; H412 - Hazardous to the aquatic environment : Chronic 3 ; Harmful to aquatic life with long lasting effects.

Eye Dam. 1 ; H318 - Serious eye damage/eye irritation : Category 1 ; Causes serious eye damage.

2.2 Label elements

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

Hazard pictograms

Corrosion (GHS05)

Signal word

Danger

Hazard components for labelling

Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate

Hazard statements

H318	Causes serious eye damage.
H412	Harmful to aquatic life with long lasting effects.

Precautionary statements

P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P284	Wear respiratory protection.
P310	Immediately call a POISON CENTER or a doctor.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Special rules for supplemental label elements for certain mixtures

EUH205	Contains epoxy constituents. May produce an allergic reaction.
EUH208	Contains Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate.May produce an allergic reaction.

2.3 Other hazards

None

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous ingredients

Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate ; REACH registration No. : 01-2120065788-39 ; EC No. : 940-592-6

Weight fraction :	≥ 3 - < 5 %
Classification 1272/2008 [CLP] :	STOT RE 2 ; H373 Eye Dam. 1 ; H318 Acute Tox. 4 ; H302 Skin Irrit. 2 ; H315 Skin Sens. 1 ; H317 Aquatic Chronic 2 ; H411

Additional information

Full text of H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General information

When in doubt or if symptoms are observed, get medical advice. Change contaminated, saturated clothing. If unconscious place in recovery position and seek medical advice.

Following inhalation

Remove casualty to fresh air and keep warm and at rest. If breathing is irregular or stopped, administer artificial respiration. In case of respiratory tract irritation, consult a physician.

In case of skin contact

Wash immediately with: Water and soap Do not wash with: Solvents/Thinner

After eye contact

Rinse immediately carefully and thoroughly with eye-bath or water. In case of eye irritation consult an ophthalmologist.

After ingestion

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention. Keep at rest. Do NOT induce vomiting. No direct artificial respiration to be given by first aider.

4.2 Most important symptoms and effects, both acute and delayed

No information available.

4.3 Indication of any immediate medical attention and special treatment needed

None

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media

Extinguishing powder, alcohol resistant foam, carbon dioxide (CO_2), water spray. The fire fighting for manuell and self-acting powder coating systems conformable BGI 764 the extingshent agent CO_2 can be used by movable tool and fight fire extingquishing system. For using other extingshent agent than CO_2 the effectiveness must be proved.

Unsuitable extinguishing media

Full water jet, inert gas with high pressure.

5.2 Special hazards arising from the substance or mixture

Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NOx), carbon monoxide (CO), carbon dioxide (CO_2) and pyrolysis products, toxic.

5.3 Advice for firefighters

Special protective equipment for firefighters

Use suitable breathing apparatus.

5.4 Additional information

Burning produces heavy smoke. Use water spray jet to protect personnel and to cool endangered containers. Do not allow run-off from fire-fighting to enter drains or water courses.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Remove all sources of ignition. See protective measures under point 7 and 8. Avoid dust formation. Do not inhale product dusts.

6.2 Environmental precautions

Do not allow to enter into surface water or drains.

6.3 Methods and material for containment and cleaning up

For cleaning up

Take up dust-free and set down dust-free. Use approved industrial vacuum cleaner for removal. (Vacuum cleaner construction B1, appropriate to suck up combustible dust). Treat the recovered material as prescribed in the section on waste disposal.

6.4 Reference to other sections

None

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Protective measures

Avoid: Generation/formation of dust, dust deposits, inhalation of dust/particles. Only use the material in places where open light, fire and other flammable sources can be kept away. If handled uncovered, arrangements with local exhaust ventilation should be used if possible. If local exhaust ventilation is not possible or not sufficient, the entire working area must be ventilated by technical means.

Measures to prevent fire

Dust can form an explosive mixture with air. Take precautionary measures against static discharges. Wear anti-static footwear and clothing Use only antistatically equipped (spark-free) tools.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage rooms and vessels

Floors should be impervious, resistant to liquids and easy to clean.

Hints on joint storage

Storage class (TRGS 510) : 11

Do not store together with

Strong acid, strong alkali, oxidising agent, food and feedingstuffs.

Further information on storage conditions

Do not store at temperatures above : 25 °C

Protect against : Humidity.

7.3 Specific end use(s)

Powder coating. Intended purpose see technical data sheet.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Occupational exposure limit values

GENERAL LIMIT VALUE FOR DUST

Limit value type (country of origin) :	TRGS 900 (D)
Parameter :	A: respirable fraction
Limit value :	1,25 mg/m^3
Peak limitation :	2(II)
Version :	17.10.2017
Limit value type (country of origin) :	TRGS 900 (D)
Parameter :	E: inhalable fraction
Limit value :	10 mg/m^3
Peak limitation :	2(II)
Version :	17.10.2017

DNEL/DMEL and PNEC values

DNEL/DMEL

Limit value type :	DNEL/DMEL (Industrial) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Exposure route :	Dermal
Exposure frequency :	Long-term (repeated)
Limit value :	0,25 mg/kg
Limit value type :	DNEL/DMEL (Industrial) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Exposure route :	Inhalation
Exposure frequency :	Long-term (repeated)
Limit value :	0,88 mg/m^3

PNEC

Limit value type :	PNEC (Aquatic, freshwater) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Limit value :	0,00272 mg/l
Limit value type :	PNEC Intermittierende Einleitung (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Limit value :	0,0272 mg/l
Limit value type :	PNEC (Soil) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Limit value :	0,00721 mg/kg
Limit value type :	PNEC (Sewage treatment plant) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Limit value :	32 mg/l

8.2 Exposure controls

Personal protection equipment

Eye/face protection

Suitable eye protection

Dust protection eye glasses

Remark

Note DGUV-Rule 112-192.

Skin protection

Hand protection

Suitable gloves type : Disposable gloves. Gloves with long cuffs

Required properties : dust-tight.

Remark : After washing hands replace lost skin fat by fat containing skin creams. Note DGUV-Rule 112-195. Note TRGS 401.

Body protection

Personel should wear protective clothings and all parts of the body should be washed after contact. Care should be taken in the selection of protective clothing to ensure that inflammation and irritation of the skin at neck and wrists through contact with the powder is avoided.

Recommended material : Natural fibres (e.g. cotton), heat-resistant synthetic fibres.

Remark : Note DGUV-Rule 112-189. Note TRGS 401.

Respiratory protection

Respiratory protection necessary at: insufficient exhaust

Suitable respiratory protection apparatus

Use breathing filter P2 (particle).
European Committee for Standardization (CEN) standards EN 136, 140 and 405 provide respirator masks and EN 149 and 143 provide filter recommendations.

Remark

Observe the wear time limits according GefStoffV in combination with the rules for using respiratory protection apparatus (BGR 190). Note TRGS 402.

General health and safety measures

Used working clothes should not be worn outside the work area.

Occupational exposure controls

Technical measures to prevent exposure

Technical measures and the application of suitable work processes have priority over personal protection equipment.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance

Physical state : Powder (1-150 µm)

Colour : According to product identification.

Odour

Poor, characteristic.

Safety relevant basis data

Melting point/melting range :		>	50	°C
Decomposition temperature :		>	250	°C
Flash point :			not applicable	
Ignition temperature :		>	450	°C
Lower explosion limit :		approx.	50 - 70	g/m³
Upper explosion limit :			No data available	
Vapour pressure :	(50 °C)		not applicable	
Density :	(20 °C)		1,2 - 1,7	g/cm³
Water solubility :	(20 °C)		insoluble	
log P O/W :			not relevant	
Viscosity :	(23 °C)		not applicable	
Cinematic viscosity :	(40 °C)		not applicable	
Solid content :			100	Wt %
Odour threshold :			not relevant	
Relative vapour density :	(20 °C)		not applicable	
Vapourisation rate :			not applicable	
Flammable solids :	Not highly flammable.			
Oxidising solids :	Not oxidising.			

9.2 Other information

The physical specifications are approximate values and refer to the used safety relevant component(s).

SECTION 10: Stability and reactivity

10.1 Reactivity
No information available.

10.2 Chemical stability
Stable under recommended storage and handling conditions (see section 7).

10.3 Possibility of hazardous reactions
No information available.

10.4 Conditions to avoid
No information available.

10.5 Incompatible materials
No information available.

10.6 Hazardous decomposition products
Does not decompose when used for intended uses.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Acute effects

Acute oral toxicity

Parameter :	ATEmix calculated
Exposure route :	Oral
Effective dose :	13798 mg/kg
Parameter :	LD50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Exposure route :	Oral
Species :	Rat
Effective dose :	300 - 2000 mg/kg

Acute dermal toxicity

Parameter :	ATEmix calculated
Exposure route :	Dermal
Effective dose :	not relevant
Parameter :	LD50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Exposure route :	Dermal
Species :	Rat
Effective dose :	> 2000 mg/kg

Acute inhalation toxicity

Parameter :	ATEmix calculated
Exposure route :	Inhalative (dust, mist)
Effective dose :	not relevant

Sensitisation

According to information given by the manufacturer the ingredient "Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate" are not sensitising in a concentration of less than 5.5 %.

In case of skin contact

Practical experience/human evidence

Once sensitized on epoxy constituents, a severe allergic reaction may occur when subsequently exposed to very low levels.

Repeated dose toxicity (subacute, subchronic, chronic)

Subacute oral toxicity

Parameter :	NOAEL(C) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and

tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)

Exposure route :	Oral
Species :	Rat
Effective dose :	75 mg/kg
Parameter :	NOEL(C) (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Exposure route :	Oral
Species :	Rat
Effective dose :	75 mg/kg

11.3 Symptoms related to the physical, chemical and toxicological characteristics

In case of skin contact

Powder coatings can cause localised skin irritation in folds of the skin or in contact with tight clothing.

SECTION 12: Ecological information

12.1 Toxicity

Aquatic toxicity

Acute (short-term) fish toxicity

Parameter :	LC50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	8,8 mg/l
Exposure time :	96 h
Method :	OECD 203

Acute (short-term) daphnia toxicity

Parameter :	EC50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	81 mg/l
Exposure time :	48 h
Method :	OECD 202

Acute (short-term) algae toxicity

Parameter :	EC50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	2,72 mg/l
Exposure time :	72 h
Parameter :	ErC50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	2,94 mg/l
Exposure time :	72 h
Method :	OECD 201

Chronic (long-term) algae toxicity

Parameter :	NOEC (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	0,368 mg/l
Exposure time :	72 h
Parameter :	NOEC (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	0,327 mg/l
Exposure time :	72 h
Method :	OECD 201

Bacteria toxicity

Parameter :	EC50 (Reaction mass of bis(2,3-epoxypropyl) terephthalate and tris(oxiranylmethyl) benzene-1,2,4-tricarboxylate)
Effective dose :	> 1000 mg/l
Exposure time :	3 h

12.2 Persistence and degradability

Abiotic degradation
Mechanical separation in a suitable sewage plant is possible.

Biodegradation
In accordance with the required stability the product is poorly biodegradable.

12.3 Bioaccumulative potential
No information available.

12.4 Mobility in soil
No information available.

12.5 Results of PBT and vPvB assessment
The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

12.6 Other adverse effects
No information available.

12.7 Additional ecotoxicological information
Additional information

Do not allow uncontrolled discharge of product into the environment.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Dispose according to legislation.

Product/Packaging disposal
Waste codes/waste designations according to EWC/AVV

Waste code product

EWC-Code: 08 02 01.

Waste treatment options

Appropriate disposal / Package

Completely emptied packages can be recycled. Handle contaminated packages in the same way as the substance itself.

13.2 Additional information
Note sections 7 and 8.

SECTION 14: Transport information

14.1 UN number
No dangerous good in sense of these transport regulations.

14.2 UN proper shipping name
No dangerous good in sense of these transport regulations.

14.3 Transport hazard class(es)
No dangerous good in sense of these transport regulations.

14.4 Packing group
No dangerous good in sense of these transport regulations.

14.5 Environmental hazards
No dangerous good in sense of these transport regulations.

14.6 Special precautions for user
None

SECTION 15: Regulatory information

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

mixture

EU legislation

Other regulations (EU)

Restrictions of occupation

Observe restrictions to employment for juvenils according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

National regulations

Water hazard class (WGK)

Class : 1 (Slightly hazardous to water) Classification according to AwSV

Other regulations, restrictions and prohibition regulations

Note TRGS 001. Note TRGS 400.

15.2 Chemical safety assessment

A chemical safety assessment has not been carried out.

SECTION 16: Other information

16.1 Indication of changes

02. Classification of the substance or mixture · 02. Labelling according to Regulation (EC) No. 1272/2008 [CLP] - Hazard components for labelling · 02. Special rules for supplemental label elements for certain mixtures · 15. Water hazard class (WGK)

16.2 Abbreviations and acronyms

TRGS: German Technical Rule for Hazardous Substances. BGR(I): Rule (Information) from the german employers liability insurance association. DGUV: German Statutory Accident Insurance. AwSV: Ordinance on plants for the handling of substances hazardous to water. VCI: German chemical industry association. EWC: European Waste Catalogue.

16.3 Key literature references and sources for data

None

16.4 Classification for mixtures and used evaluation method according to regulation (EC) No 1272/2008 [CLP]

Calculation method.

16.5 Relevant H- and EUH-phrases (Number and full text)

H302	Harmful if swallowed.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H373	May cause damage to organs through prolonged or repeated exposure.
H411	Toxic to aquatic life with long lasting effects.

16.6 Training advice

None

16.7 Additional information

None

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.