

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 1 of 10

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

#### 1.1. Product identifier

Poly-Carboxylate

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

##### Use of the substance/mixture

medical use

##### Uses advised against

No information available.

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

Company name:	Willmann & Pein GmbH	
Street:	Schusterring 35	
Place:	D-25355 Barmstedt	
Telephone:	+49 (0) 4123 - 9228-0	Telefax: +49 (0) 04123 9228-49
e-mail:	info@wp-dental.de	
e-mail (Contact person):	info@wp-dental.de	
Internet:	www.wpdental.de	
Responsible Department:	info@wp-dental.de	

#### 1.4. Emergency telephone number:

+49(0) 551 - 1 92 40 (GIZ-Nord, 24h)

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### Regulation (EC) No. 1272/2008

Hazard categories:

Acute toxicity: Acute Tox. 4

Skin corrosion/irritation: Skin Irrit. 2

Serious eye damage/eye irritation: Eye Irrit. 2

Hazardous to the aquatic environment: Aquatic Acute 1

Hazardous to the aquatic environment: Aquatic Chronic 1

Hazard Statements:

Harmful if swallowed.

Causes skin irritation.

Causes serious eye irritation.

Very toxic to aquatic life.

Very toxic to aquatic life with long lasting effects.

#### 2.2. Label elements

##### Regulation (EC) No. 1272/2008

##### Hazard components for labelling

Tin difluoride

Signal word: Warning

##### Pictograms:



##### Hazard statements

H302	Harmful if swallowed.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 2 of 10

H410 Very toxic to aquatic life with long lasting effects.

### Precautionary statements

- P264 Wash hands thoroughly after handling.  
P270 Do not eat, drink or smoke when using this product.  
P273 Avoid release to the environment.  
P280 Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P312 IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.  
P302+P352 IF ON SKIN: Wash with plenty of 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.  
P332+P313 If skin irritation occurs: Get medical advice/attention.  
P337+P313 If eye irritation persists: Get medical advice/attention.  
P391 Collect spillage.  
P501 Dispose of waste according to applicable legislation.

### 2.3. Other hazards

No information available.

## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous components

CAS No	Chemical name	Quantity		
	EC No	Index No	REACH No	
	Classification according to Regulation (EC) No. 1272/2008 [CLP]			
1314-13-2	Zinc oxide			70-80 %
	215-222-5	030-013-00-7	01-2119463881-32	
	Aquatic Acute 1 (M-Factor = 1), Aquatic Chronic 1 (M-Factor = 1); H400 H410			
7783-47-3	Tin difluoride			10-20 %
	231-999-3		01-2120115615-63	
	Met. Corr. 1, Acute Tox. 3, Skin Irrit. 2, Eye Dam. 1; H290 H301 H315 H318			

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

#### Further Information

No information available.

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

#### General information

Change contaminated, saturated clothing. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

#### After inhalation

Remove person to fresh air and keep comfortable for breathing. If breathing is irregular or stopped, administer artificial respiration.  
Seek medical advice immediately.

#### After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Seek medical advice immediately.

#### After contact with eyes

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 3 of 10

### **After ingestion**

Rinse mouth immediately and drink plenty of water.  
Call a physician immediately.  
Do NOT induce vomiting.

### **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**

First Aid, decontamination, treatment of symptoms.

## **SECTION 5: Firefighting measures**

### **5.1. Extinguishing media**

#### **Suitable extinguishing media**

Dry extinguishing powder. Carbon dioxide (CO<sub>2</sub>). alcohol resistant foam. Water spray jet

#### **Unsuitable extinguishing media**

High power water jet

### **5.2. Special hazards arising from the substance or mixture**

Carbon monoxide Carbon dioxide (CO<sub>2</sub>). Nitrogen oxides (NO<sub>x</sub>)

### **5.3. Advice for firefighters**

Special protective equipment for firefighters Protective clothing.  
In case of fire: Wear self-contained breathing apparatus.  
Co-ordinate fire-fighting measures to the fire surroundings.

### **Additional information**

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.  
Dispose of waste according to applicable legislation.

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

### **6.1. Personal precautions, protective equipment and emergency procedures**

See protective measures under point 7 and 8.  
Personal protection equipment: see section 8

### **6.2. Environmental precautions**

Do not allow to enter into surface water or drains. Cover drains.

### **6.3. Methods and material for containment and cleaning up**

Take up mechanically. Treat the recovered material as prescribed in the section on waste disposal.

### **6.4. Reference to other sections**

See protective measures under point 7 and 8.  
Disposal: see section 13

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

### **7.1. Precautions for safe handling**

#### **Advice on safe handling**

See section 8.  
Wear personal protection equipment (refer to section 8).  
Keep container tightly closed.  
Avoid contact with skin, eyes and clothes.  
Do not breathe gas/vapour.

#### **Advice on protection against fire and explosion**

Use only in well-ventilated areas.

### **7.2. Conditions for safe storage, including any incompatibilities**

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 4 of 10

### Requirements for storage rooms and vessels

Keep container tightly closed in a cool, well-ventilated place. Keep/Store only in original container.

### Advice on storage compatibility

No special measures are necessary.

### Further information on storage conditions

No special measures are necessary.

### 7.3. Specific end use(s)

No information available.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### DNEL/DMEL values

CAS No	Substance	Exposure route	Effect	Value
1314-13-2	Zinc oxide			
Worker DNEL, long-term		inhalation	systemic	5 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	0,5 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term		inhalation	systemic	2,5 mg/m <sup>3</sup>
Consumer DNEL, long-term		dermal	systemic	83 mg/kg bw/day
Consumer DNEL, long-term		oral	systemic	0,83 mg/kg bw/day
7783-47-3	Tin difluoride			
Worker DNEL, long-term		inhalation	systemic	4,1 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	systemic	16,5 mg/m <sup>3</sup>
Worker DNEL, long-term		inhalation	local	4,1 mg/m <sup>3</sup>
Worker DNEL, acute		inhalation	local	16,5 mg/m <sup>3</sup>
Worker DNEL, long-term		dermal	systemic	0,59 mg/kg bw/day
Worker DNEL, acute		dermal	systemic	0,59 mg/kg bw/day

#### PNEC values

CAS No	Substance	Value
1314-13-2	Zinc oxide	
Freshwater		0,0206 mg/l
Marine water		0,0061 mg/l
Freshwater sediment		117,8 mg/kg
Marine sediment		56,5 mg/kg
Soil		35,6 mg/kg

### 8.2. Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.

#### Protective and hygiene measures

Avoid contact with skin, eyes and clothes.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 5 of 10

Only wear fitting, comfortable and clean protective clothing.  
Wash hands before breaks and after work.  
Take off contaminated clothing and wash it before reuse.  
When using do not eat, drink, smoke, sniff.

### Eye/face protection

goggles

### Hand protection

Tested protective gloves must be worn: DIN EN 374  
NBR (Nitrile rubber), Butyl caoutchouc (butyl rubber), PVC  
Thickness of the glove material  $\geq 0,4$  mm  
Breakthrough times and swelling properties of the material must be taken into consideration.  
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.  
Wearing time with occasional contact (splashes): max. 480 min.  
Wearing time with permanent contact 240 - 480 min  
Observe the wear time limits as specified by the manufacturer.

### Skin protection

Protective clothing.

### Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, respiratory protection must be worn.  
Filtering device (full mask or mouthpiece) with filter: ABEK P2

### Environmental exposure controls

No information available.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	Powder
Colour:	white
Odour:	odourless

#### Test method

pH-Value:	not applicable
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### Changes in the physical state

Melting point:	not determined
Initial boiling point and boiling range:	not determined
Sublimation point:	not determined
Softening point:	not determined
Pour point:	not determined
Flash point:	not determined

### Flammability

Solid:	not determined
Gas:	not determined

### Explosive properties

not explosive according to EU A.14

Lower explosion limits:	not applicable
Upper explosion limits:	not applicable
Ignition temperature:	not determined

### Auto-ignition temperature

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 6 of 10

Solid:	not applicable
Gas:	not applicable
Decomposition temperature:	not determined
<b>Oxidizing properties</b>	
No information available.	
Vapour pressure:	not determined
Vapour pressure:	not determined
Density:	not determined
Bulk density:	not determined
Water solubility:	partially miscible
<b>Solubility in other solvents</b>	
No information available.	
Partition coefficient:	not determined
Viscosity / dynamic:	not determined
Viscosity / kinematic:	not determined
Flow time:	not determined
Vapour density:	not determined
Evaporation rate:	not determined

### **9.2. Other information**

No information available.

## **SECTION 10: Stability and reactivity**

### **10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

### **10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

### **10.3. Possibility of hazardous reactions**

No hazardous reaction when handled and stored according to provisions.  
In use, may form flammable/explosive vapour-air mixture.

### **10.4. Conditions to avoid**

Heat  
Humidity

### **10.5. Incompatible materials**

Strong acid  
Strong alkali

### **10.6. Hazardous decomposition products**

No information available.

## **SECTION 11: Toxicological information**

### **11.1. Information on toxicological effects**

#### **Acute toxicity**

Harmful if swallowed.

#### **ATEmix calculated**

ATE (oral) 500,0 mg/kg

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 7 of 10

CAS No	Chemical name	Exposure route	Dose	Species	Source
1314-13-2	Zinc oxide	oral	LD50 > 2000 mg/kg	Rat	OECD Guideline 423
		dermal	LD50 > 2000 mg/kg	Rat	OECD Guideline 402
		inhalative (4 h) aerosol	LC50 >5,7 mg/l	Rat	
7783-47-3	Tin difluoride	oral	ATE 100 mg/kg		

### Irritation and corrosivity

Causes skin irritation.

Causes serious eye irritation.

### Sensitising effects

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

### Carcinogenic/mutagenic/toxic effects for reproduction

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

### STOT-single exposure

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

### STOT-repeated exposure

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

### Aspiration hazard

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

## SECTION 12: Ecological information

### 12.1. Toxicity

No information available.

CAS No	Chemical name	Aquatic toxicity	Dose	[h]   [d]	Species	Source
1314-13-2	Zinc oxide	Acute fish toxicity	LC50 4,92 mg/l	96 h	Danio rerio	ECHA
		Acute algae toxicity	ErC50 0,21 mg/l	72 h	Selenastrum capricornutum	
		Acute crustacea toxicity	EC50 7,5 mg/l	48 h	Daphnia magna	OECD Guideline 202
		Fish toxicity	NOEC >= 0,54 mg/l	32 d	Danio rerio	OECD Guideline 210
		Algae toxicity	NOEC 0,024 mg/l	3 d	Selenastrum capricornutum	OECD Guideline 201
		Crustacea toxicity	NOEC 0,058 mg/l	21 d	Daphnia magna	OECD Guideline 211
		Acute bacteria toxicity	(5,2 mg/l)	3 h	activated sludge of a predominantly domestic sewage	OECD Guideline 209

### 12.2. Persistence and degradability

No information available.

### 12.3. Bioaccumulative potential

No information available.

### BCF

CAS No	Chemical name	BCF	Species	Source
1314-13-2	Zinc oxide	28960	Palaemon elegans	ECHA

### 12.4. Mobility in soil

No information available.

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 8 of 10

### **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.

## **SECTION 13: Disposal considerations**

### **13.1. Waste treatment methods**

#### **Advice on disposal**

Dispose of waste according to applicable legislation.

#### **Contaminated packaging**

Dispose of waste according to applicable legislation.

## **SECTION 14: Transport information**

### **Land transport (ADR/RID)**

<b>14.1. UN number:</b>	UN 3077
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Classification code:	M7
Special Provisions:	274 335 375 601
Limited quantity:	5 kg
Excepted quantity:	E1
Transport category:	3
Hazard No:	90
Tunnel restriction code:	-

### **Inland waterways transport (ADN)**

<b>14.1. UN number:</b>	UN 3077
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Classification code:	M7
Special Provisions:	274 335 375 601
Limited quantity:	5 kg
Excepted quantity:	E1

### **Marine transport (IMDG)**

<b>14.1. UN number:</b>	UN 3077
<b>14.2. UN proper shipping name:</b>	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)
<b>14.3. Transport hazard class(es):</b>	9
<b>14.4. Packing group:</b>	III
Hazard label:	9
Marine pollutant:	P
Special Provisions:	274, 335, 966, 967, 969
Limited quantity:	5 kg
Excepted quantity:	E1



# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 9 of 10

EmS: F-A, S-F

### Air transport (ICAO-TI/IATA-DGR)

**14.1. UN number:** UN 3077  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Zinc oxide)  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
Hazard label: 9  
Special Provisions: A97 A158 A179 A197  
Limited quantity Passenger: 30 kg G  
Passenger LQ: Y956  
Excepted quantity: E1  
IATA-packing instructions - Passenger: 956  
IATA-max. quantity - Passenger: 400 kg  
IATA-packing instructions - Cargo: 956  
IATA-max. quantity - Cargo: 400 kg

### 14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: yes  
Danger releasing substance: Zinc oxide

### 14.6. Special precautions for user

No information available.

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

No information available.

## SECTION 15: Regulatory information

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

#### National regulatory information

Water contaminating class (D): 2 - water contaminating

### 15.2. Chemical safety assessment

For the following substances of this mixture a chemical safety assessment has been carried out:

Zinc oxide  
Tin difluoride

## SECTION 16: Other information

### Abbreviations and acronyms

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
IMDG: International Maritime Code for Dangerous Goods  
IATA: International Air Transport Association  
IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)  
ICAO: International Civil Aviation Organization  
ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)  
CAS: Chemical Abstracts Service (division of the American Chemical Society)  
GHS: Globally Harmonized System of Classification and Labelling of Chemicals  
CLP: Regulation on Classification, Labelling and Packaging of Substances and Mixtures,  
LC50: Lethal concentration, 50 percent  
LD50: Lethal dose, 50 percent

# Safety Data Sheet

according to Regulation (EC) No 1907/2006



## Poly-Carboxylate

Revision date: 12.06.2017

Page 10 of 10

EC50: Effectice concentration, 50 percent  
DNEL: Derived No Effect Level  
PNEC: Predicted No Effect Concentration  
PBT: Persistent, Bioaccumulative and Toxic  
vPvB: very Persistent and very Bioaccumulative

### Relevant H and EUH statements (number and full text)

H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

### Further Information

The information is based on present level of our knowledge. It does not, however, give assurances of product properties and establishes no contract legal rights. The receiver of our product is singulary responsible for adhering to existing laws and regulations.

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*(The data for the hazardous ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)*