

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

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

### 1.1 Product identifier

Product name: Water-dilutable topcoat, glossy  
Unique Formula Identifier (UFI-Code): G380-R0PW-F00P-07XY  
Product type: alkyd paint

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

Field of application: metal industry  
Identified uses: Industrial applications, Professional applications, Used by spraying.

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

Producer/Supplier: Bisdorf GmbH  
Industriestraße 49-51  
D-52224 Stolberg  
Telephone: +49 (0) 2402 / 71048  
Telefax: +49 (0) 2402 / 75465  
E-Mail adress: [bisdorf-lacke@arcor.de](mailto:bisdorf-lacke@arcor.de)

### 1.4 Emergency telephone number

Emergency information: Information Center against Poisons  
University Bonn  
Telephone number: +49 (0)228 / 19240  
Date of issue: 20.10.2023  
Date of previous issue: 05.10.2021

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

Product definition: Mixture  
Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification acc. to GHS			
Section	Hazard class	Hazard class and category	Hazard statement
3.2	skin corrosion/irritation	Skin Irrit. 2	H315
3.3	serious eye damage/eye irritation	Eye Irrit. 2	H319

See Section 11 for more detailed information on health effects and symptoms.

### 2.2 Label elements

Hazard pictograms:



Signal word: Warning

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name:	Water-dilutable topcoat, glossy
Date of printing:	20.10.2023
Hazard statements:	H315 - Causes skin irritation. H319 - Causes serious eye irritation. EUH211 - Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Precautionary statements:	
Prevention:	P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Response:	P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position 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.
Storage:	P403 + P233 - Store in a well-ventilated place. Keep container tightly closed. P403 + P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up.
Disposal:	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
Supplemental label elements:	-
Indication at Labelling:	Not applicable.

## 2.3 Other hazards

Endocrine disrupting properties (human health):

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Endocrine disrupting properties (environment):

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

PBT and vPvB assessment:

This substance/mixture contains components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB).

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

Product/ingredient name	Identifiers	%	Classification 1272/2008/EC (CLP)	Type
2-butanol	REACH: 01-2119475146-36 CAS: 78-92-2 EG: 201-158-5	1-3	Flam. Liq. 3, H226 Eye Irrit. 2, H319 STOT SE 3, H335 STOT SE 3, H336	[1]
2-butoxyethanol	REACH: 01-2119475108-36 CAS: 111-76-2 EG: 203-905-0	1-3	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]
3-butoxy-2-propanol	REACH: 01-2119475527-28 CAS: 5131-66-8 EG: 225-878-4	1-3	Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1]
1-propoxy-2-propanol	REACH: 01-2119474443-37 CAS: 1569-01-3 EG: 216-372-4	5-10	Flam. Liq. 3, H226 Eye Irrit. 2, H319	[1]

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

Product/ingredient name	Identifiers	%	Classification 1272/2008/EC (CLP)	Type
titanium dioxide (note 10)	REACH: 01-2119489379-17 CAS: 13463-67-7 EG: 236-675-5	<15	Carc. 2, H351	[1]

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

## Type

- [1] Substance classified with a health or environmental hazard
- [2] Substance with a workplace exposure limit
- [3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
- [4] Substance does not meet the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII.
- [5] Substance of equivalent conce.

Occupational exposure limits, if available, are listed in Section 8.

Note 10 (EU 2020/217): The classification as a carcinogen by inhalation applies only to mixtures in powder form containing 1 % or more of titanium dioxide which is in the form of or incorporated in particles with aerodynamic diameter  $\leq 10 \mu\text{m}$ .

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

- General information: In all cases of doubt, or when symptoms persist, seek medical attention. If unconscious, place in recovery position and get medical attention immediately. Never give anything by mouth to an unconscious person. In any case show the physician the Safety Data Sheet.
- Inhalation: Remove affected persons from dangerous area by observing suitable respiratory Protection measures. Remove the casualty into fresh air and keep at rest. After intensive inhalation consult a doctor in every case, even if no symptoms occur.
- Skin contact: Take off immediately all contaminated clothing. Wash contaminated clothing before reusing. Do not allow the product to dry on the skin. Wash skin thoroughly with soap and water or use recognised skin cleanser. Consult a doctor in case of persisting skin irritation.
- Eye contact: Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. Begin with medical treatment.
- Ingestion: If swallowed, rinse mouth with water (only if the person is conscious). Do not induce vomiting unless directed to do so by medical personnel. Seek medical attention.

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

- General information: When inhaled or swallowed depending on the time and amount, it can give rise to the following symptoms: headaches, giddiness, tiredness, nausea, vomiting, irregular heart beat, intoxication, unconsciousness, asphyxiation and fatality.

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

- Notes to physician: Symptomatic treatment.

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## SECTION 5: Firefighting measures

### 5.1 Extinguishing media



Suitable: Extinguishing measures to suit surroundings. In case of fire, use water spray jet, dry extinguishing powder, foam or carbon dioxide.  
Not suitable: water jet.

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

Hazardous combustion  
Products: Fire will produce dense black smoke containing hazardous combustion products. In a fire, the following may be released: carbon dioxide, carbon monoxide, not combusted hydrocarbons.

### 5.3 Advice for firefighters

Special protective equipment for fire-fighters: During fire-fighting wear self-contained breathing apparatus and protective clothing.  
Additional information: The product is flammable. Use water spray to keep fire-exposed containers cool. Use extinguishing media suitable for surrounding materials. Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.

## SECTION 6: Accidental release measures

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

General information: To avoid fire, eliminate ignition sources. Provide adequate ventilation. Use personal protective equipment. Avoid contact with eyes, skin and clothing. Avoid breathing vapours, spray or mists.

### 6.2 Environmental precautions

General information: Do not discharge into the drains / surface waters / groundwater. Prevent spread over a wide area e.g. by containment or oil barriers.

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

General information: Absorb with liquid-binding material (sand, diatomite, universal binders etc.) or use a spill kit. Containers in which spilt substance has been collected must be adequately labelled. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.

### 6.4 Reference to other sections

General information: See Section 1 for emergency contact information.  
See Section 8 for information on appropriate personal protective equipment.  
See Section 13 for additional waste treatment information.

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Protective measures: Keep away from sources of ignition - No smoking. Vapours may form explosive mixtures with air.  
Take precautionary measures against electrostatic discharges. Provide good ventilation of working area. The working procedure should be planned as far as allowed by state-of-the-art technology so as to avoid release of hazardous substances or prevent skin contact. The level of risk involved in product handling must be reduced to a minimum by means of protective and preventive measures.

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

General information: Store in a dry, cool and well-ventilated area. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabelled containers. Use appropriate containment to avoid environmental contamination. Store in accordance with local regulations.

German storage class: 10 - Combustible liquids neither in Storage Class 3

### 7.3 Specific end use(s)

See separate Product Data Sheet for recommendations or industrial sector specific solutions.

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limit values (Workplace Exposure Limits)

Product/ingredient name	CAS-Nr.	Notation	Identifier	TWA [ppm]	TWA [mg/m <sup>3</sup> ]	STEL [ppm]	STEL [mg/m <sup>3</sup> ]	Source
2-butanol	78-92-2		-	-	-	-	-	2017/164/EU
2-butoxyethanol	111-76-2		IOELV	20	98	50	246	2000/39/EG
3-butoxy-2-propanol	5131-66-8			50		75		Dow IHG
1-propoxy-2-propanol	1569-01-3			50		75		Dow IHG
titanium dioxide	13463-67-7	i	IOLEV		10		20	2017/164/EU
titanium dioxide	13463-67-7	r	IOLEV		1,25		2,4	2017/164/EU

#### Notation

i Inhalable 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

r Respirable fraction

TWA Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## DNELs/DMELs

Product/ingredient name		
2-butanol		
Oral	DNEL (population)	15 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	405 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	203 mg/kg bw/day (Long-term - systemic effects)
Inhalation	DNEL (worker)	212 mg/m <sup>3</sup> (Long-term - systemic effects)

Product/ingredient name		
2-butoxyethanol		
Oral	DNEL (population)	13,4 mg/kg bw/day (Acute - systemic effects) 3,2 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	89 mg/kg bw/day (Acute - systemic effects) 75 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	44,5 mg/kg bw/day (Acute - systemic effects) 38 mg/kg bw/day (Long-term - systemic effect)
Inhalation	DNEL (worker)	633 mg/m <sup>3</sup> (Acute - systemic effects) 98 mg/m <sup>3</sup> (Long-term - systemic effects)
	DNEL (population)	426 mg/m <sup>3</sup> (Acute - systemic effects) 49 mg/m <sup>3</sup> (Long-term - systemic effects)

Product/ingredient name		
3-butoxy-2-propanol		
Oral	DNEL (population)	8,75 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	44 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	16 mg/kg bw/day (Long-term - systemic effects)
Inhalation	DNEL (worker)	270 mg/m <sup>3</sup> (Long-term - systemic effects) 50 mg/m <sup>3</sup> (Acute - systemic effects)
	DNEL (population)	33,8 mg/m <sup>3</sup> (Long-term - systemic effects)

Product/ingredient name		
1-propoxy-2-propanol		
Oral	DNEL (population)	2,2 mg/kg bw/day (Long-term - systemic effects)
Dermal	DNEL (worker)	9 mg/kg bw/day (Long-term - systemic effects)
	DNEL (population)	2,2 mg/kg bw/day (Long-term - systemic effects)
Inhalativ	DNEL (worker)	217 mg/m <sup>3</sup> (Long-term - systemic effects)
	DNEL (population)	26 mg/m <sup>3</sup> (Long-term - systemic effects)

Product/ingredient name		
titanium dioxide		
Inhalation	DNEL (worker)	10 mg/m <sup>3</sup> Acute - local effects)
Oral	DNEL (population)	700 mg/kg bw/day (Long-term - systemic effects)



# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy

Date of printing: 20.10.2023

## PNECs

Product/ingredient name	
2-butanol	
PNEC aqua	41,7 mg/l (fresh water) 41,7 mg/l (marine water)
PNEC	761 mg/l (STP (sewage treatment plant)) 11,58 mg/kg dw (soil)
PNEC sediment	196,2 mg/kg dw (fresh water) 196,2 mg/kg dw (marine water)

Product/ingredient name	
2-butoxyethanol	
PNEC aqua	8,8 mg/l (fresh water) 0,88 mg/l (marine water)
PNEC	463 mg/l (STP (sewage treatment plant)) 2,33 mg/kg dw (soil)
PNEC sediment	34,6 mg/kg dw (fresh water) 3,46 mg/kg dw (marine water)

Product/ingredient name	
3-butoxy-2-propanol	
PNEC aqua	0,525 mg/l (fresh water) 0,0525 mg/l (marine water)
PNEC	10 mg/l (STP (sewage treatment plant)) 0,16 mg/kg dw (soil)
PNEC sediment	2,36 mg/kg dw (fresh water) 0,236 mg/kg dw (marine water)

Product/ingredient name	
1-propoxy-2-propanol	
PNEC aqua	0,1 mg/l (fresh water) 0,01 mg/l (marine water)
PNEC	4 mg/l (STP (sewage treatment plant)) 0,0185 mg/kg dw (soil)
PNEC sediment	0,386 mg/kg dw (fresh water) 0,0386 mg/kg dw (marine water)

Product/ingredient name	
titanium dioxide	
PNEC aqua	0,127 mg/l (fresh water) >1 mg/l (marine water)
PNEC	>100 mg/l (STP (sewage treatment plant)) >100 mg/kg dw (soil)
PNEC sediment	>100 mg/kg dw (fresh water) >1000 mg/kg dw (marine water)

## 8.2 Exposure controls / personal protection

### Engineering measures

Refer to protective measures listed in sections 7.

### Personal protective equipment:

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## Respiratory protection

Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator. If working areas have insufficient ventilation: When the product is applied by means that will not generate an aerosol such as, brush or roller wear half or totally covering mask equipped with gas filter of type A, when grinding use particle filter of type P. Be sure to use approved/certified respirator or equivalent.

## Hand protection

If there is a potential for product skin contact, use of gloves tested to e.g. EN 374 will provide sufficient protection. Protective gloves should in any case be tested for workplace-specific suitability (e.g. mechanical resistance, product compatibility, antistatic properties). Comply with instructions and information provided by the glove manufacturer concerning use, care and replacement of the gloves. Replace protective gloves immediately upon damage or at the first signs of wear. As far as possible, plan work procedures so that wearing gloves will not be necessary.

	Long term exposure	Short term exposure
Recommended gloves should be made of	Viton®	Nitril.
Material thickness	>0,7 mm	>0,4 mm
Permeation time	>480 min	>480 min

## Eye protection

Safety goggles with lateral shielding (DIN EN 166)

## Body protection

Usual working clothes for the chemical industry, suitable for the job.

## Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

#### Appearance

Physical state: Fluid

Colour: RAL-Colours

Odor: Characteristic

Odor threshold: Not relevant for the hazard classification of the product.

#### Security-relevant basic data

Parameter	
pH-value	7 - 9
Melting point/Melting range	0 °C (This is based on data for the following ingredient: water)
Boiling point/Boiling range	100 °C (This is based on data for the following ingredient: water)
Flash point	100 °C
Flammability (solid / gas)	Not applicable.



# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

Parameter	
Ignition temperature	>200 ° C (lowest value of the individual components)
Decomposition temperature	Not determined.
Auto-ignition temperature	The product is not self-igniting.
Explosive properties	Product is not explosive. However, formation of explosive air/steam mixtures as possible.
Explosion limits Lower Upper Oxidizing properties	1,4 %(Vol) 9,8 %(Vol) Not determined
Vapour pressure	2 kPa (20 °C)
Density	~1,20 g/cm <sup>3</sup> (20 °C)
Vapor density	Not determined
Evaporation rate	No data available.
Solubility in Miscibility with water	Organic solvents (see point 3) Fully miscible.
Partition coefficient: (n-octanol/water)	Testing not relevant or not possible due to nature of the product.
Viscosity (expiry time after DIN 53211) Dynamic: Kinematic:	~130 s DIN 4mm (20°C)
Solvent separation test	< 3% (20°C)

## 9.2. Other information

No additional information.

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

General information: No specific test data related to reactivity available for this product or its ingredients.

### 10.2 Chemical stability

General information: The product is stable.

### 10.3 Possibility of hazardous reactions

General information: Rubber and other synthetic material can be affected.

### 10.4 Conditions to avoid

General information: The product is flammable. Keep away from excessive heat, sparks or open fire.

### 10.5 Incompatible materials

General information: oxidising agents, acids

### 10.6 Hazardous decomposition products

General information: Thermal disintegration depends to a great extent on the external conditions. A complex mixture of solids, liquids and gases forms in the air, including among other substances carbon dioxide, carbon monoxide and other organic compounds, when this material is burnt or is thermally or oxidatively degraded.

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

Product/ingredient name	Result	Species	Dose	Exposure
2-butanol	LC50 Inhalation Vapour	Rat	48500 mg/m <sup>3</sup>	4 hours
	LD50 Dermal	Rat	>2.000 mg/kg	-
	LD50 Oral	Rat	2.193 mg/kg	-
2-butoxyethanol	LC50 Inhalation Vapour	Rat	>10 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	1746 mg/kg	-
3-butoxy-2-propanol	LC50 Inhalation Vapour	Rat	> 3,5 mg/l	4 hours
	LD50 Dermal	Rabbit	> 2 000 mg/kg	-
	LD50 Oral	Rat	3.300 mg/kg	-
1-propoxy-2-propanol	LC50 Inhalation Vapour	Rat	8,34 mg/l	4 hours
	LD50 Dermal	Rabbit	3818 mg/kg	-
	LD50 Oral	Rat	2519 mg/kg	-
titanium dioxide	LC50 Inhalation Dusts and mists	Rat	3,43 - 5,09 mg/l	4 hours
	LD50 Dermal	Rabbit	>10 g/kg	-
	LD50 Oral	Rat	>24 g/kg	-

### Corrosion/Irritation

Product/ingredient name	Result	Species	Score	Exposure
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 Micrograms Intermittent

### Sensitiser

Skin: No evidence of sensitizing effects.  
Respiratory: May cause respiratory irritation.

### Mutagenicity

Remarks: No evidence of mutagenic effects.

### Carcinogenicity

Remarks: No evidence of carcinogenic effects.

### Reproductive toxicity

Remarks: No evidence that the substance is toxic for reproduction.

Product/ingredient name	Maternal toxicity	Fertility	Developmental toxin	Species	Dose	Exposure
titanium dioxide	Negative	Negative	Negative	Rat - Male, Female	Oral: 100 bto 3001000 mg/kg	20 Days; 7 Days per Week

### Teratogenicity

Remarks: No evidence that the substance may cause birth defects.

### Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
2-Butanol	Category 3	Not applicable.	Respiratory tract Irritation and Narcotic effects

### Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
-	-	-	-

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy

Date of printing: 20.10.2023

## Aspiration hazard

Product/ingredient name	Result
-	-

## Information on the likely routes of exposure

Routes of entry anticipated: Oral, Dermal, Inhalation.

## Potential chronic health effects

Product/ingredient name	Result	Species	Dose	Exposure
titanium dioxide	Chronic NOAEL Oral	Rat	3500 mg/kg	-
	Chronic NOAEL Inhalation Dusts and mists	Rat	10 mg/m <sup>3</sup>	24 hours

## 11.2 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 11.3 Other hazards

No other information available.

## SECTION 12: Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
2-butanol	Acute EC50 4227 mg/l	Daphnie - Daphnia magna	48 hours
	Acute EC50 2029 mg/l	Algae- Pseudokirchneriella subcapitata	96 hours
2-butoxyethanol	Acute LC50 3670 mg/l	Fish - Pimephales promelas	96 hours
	Acute EC50 1550 mg/l	Daphnie - Daphnia magna	48 hours
3-butoxy-2-propanol	Acute EC50 1840 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute LC50 1474 mg/l	Fish - Oncorhynchus mykiss	96 hours
1-propoxy-2-propanol	Acute EC50 >1000 mg/l	Daphnie - Daphnia magna	48 hours
	Acute EC50 >1000 mg/l	Algae - Pseudokirchneriella subcapitata	96 hours
titanium dioxide	Acute LC50 >560-1000 mg/l	Fish - Poecilia reticulata	96 hours
	Acute EC50 >100 mg/l	Daphnie - Daphnia magna	48 hours
titanium dioxide	Acute EC50 1466 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute LC50 >100 mg/l	Fish - Pimephales promelas	96 hours
titanium dioxide	Acute LC50 3 mg/l	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Fresh water	Daphnia spec. - Daphnia pulex - Neonate	48 hours
titanium dioxide	Acute LC50 6,5 mg/l	Daphnia spec. - Daphnia pulex - Neonate	48 hours
	Fresh water	Fish - Fundulus heteroclitus	96 hours
titanium dioxide	Acute LC50 >1000000 µg/l	Fish - Fundulus heteroclitus	96 hours
titanium dioxide	µg/l Marine water		

### 12.2 Persistence and degradability

Product/ingredient name	Result
2-Butanol	90 % - 28 days
2-Butoxyethanol	98 % - 28 days
3-Butoxy-2-propanol	90 % - 28 days
1-Propoxy-2-propanol	91,5% - 28 days

Remarks: Not available.

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
titanium dioxide	-	-	Not readily

## 12.3 Bioaccumulative potential

Product/ingredient name	LogPow	BCF	Potential
2-Butanol	0,6	-	low
2-Butoxyethanol	0,81	-	low
3-Butoxy-2-propanol	<3	<100	low
1-Propoxy-2-propanol	<3	<100	low
titanium dioxide	-	19-352	low

## 12.4 Mobility in soil

Soil/water partition coefficient (KOC): Not available.

## 12.5 Results of PBT and vPvB assessment

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

## 12.6 Endocrine disrupting properties

The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

## 12.7 Other adverse effects

No known significant effects or critical hazards.

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods



The generation of waste should be avoided or minimised wherever possible. Residues of the product is listed as hazardous waste. Dispose of according to all state and local applicable regulations. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Spillage, remains, discarded clothes and similar should be discarded in a fireproof container.

European waste catalogue no. (EWC) is given below.  
European waste catalogue (EWC): 08 01 11\*

### Packaging

The generation of waste should be avoided or minimised wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## SECTION 14: Transport information

Transport may take place according to national regulation or ADR for transport by road, RID for transport by train, IMDG for transport by sea, IATA for transport by air.

	14.1 UN no.	14.2 Proper shipping name	14.3 Transport hazard class(es)	14.4 PG*	14.5 Env*	Additional information
<b>ADR/RID Class</b>	Not regulated.		-	-	No.	-
<b>IMDG Class</b>	Not regulated.		-	-	No.	-
<b>IATA Class</b>	Not regulated.		-	-	No.	-

PG\*.: Packing group

Env.\* : Environmental hazards

### 14.6 Special precautions for user

Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

### 14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

Not applicable.

## SECTION 15: Regulatory information

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

#### EU Regulation

Regulation (EG) Nr. 1907/2006 (REACH)

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), with supplements.

Regulation (EG) Nr. 1272/2008 (CLP)

Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labeling and packaging of substances and mixtures (CLP), with supplements.

EU Regulation (EC) No. 1907/2006 (REACH)

Annex XIV - List of substances subject to authorisation

Substances of very high concern

Substances mentioned on the so-called "candidate list of substances of very high concern (SVHC) for authorisation" published by the ECHA are not intentionally added to this product. Therefore it is not expected, that these substances are present in amounts of  $\geq 0,1\%$  in this product.

#### National legislation (Germany)

**Water hazard class:** WGK 1 (Assessment by list): slightly hazardous for water.

**VOC:** 211 g/l DIN ISO 11890 (Council Directive 1999/13/EC).

**Information about limitation of use:** Employment restrictions concerning young persons must be observed.

### 15.2 Chemical Safety Assessment

This product contains substances for which Chemical Safety Assessments are still required.

# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II



Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023

## SECTION 16: Other information

### Abbreviations and acronyms:

Abbr.	Descriptions of used abbreviations
ADR	Accord européen relatif au transport international des marchandises dangereuses par route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
BCF	bioconcentration factor
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
CLP	Regulation (EC) No 1272/2008 on classification, labelling and packaging of substances and mixtures
CMR	Carcinogenic, Mutagenic or toxic for Reproduction
DGR	Dangerous Goods Regulations (see IATA/DGR)
DMEL	Derived Minimal Effect Level
DNEL	Derived No-Effect Level
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods Code
IOELV	indicative occupational exposure limit value
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")
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 (Regulations concerning the International carriage of Dangerous goods by Rail)
STEL	short-term exposure limit
TWA	time-weighted average
VOC	Volatile Organic Compounds
vPvB	very Persistent and very Bioaccumulative

### Full text of classifications [CLP/GHS]:

Acute Tox. 4, H302 AKUTE TOXIZITÄT (oral) - Category 4  
Acute Tox. 4, H312 ACUTE TOXICITY (dermal) - Category 4  
Acute Tox. 4, H332 ACUTE TOXICITY (inhalation) - Category 4  
Eye Irrit. 2, H319 SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2  
Flam. Liq. 3, H226 FLAMMABLE LIQUIDS - Category 3  
Skin Irrit. 2, H315 SKIN CORROSION/IRRITATION - Category 2  
STOT SE 3, H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
STOT SE 3, H336 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Narcotic effects) - Category 3

### Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Irrit. 2, H315	Calculation method
Eye Irrit. 2, H319	Calculation method



# SAFETY DATA SHEET

Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II

Product name: Water-dilutable topcoat, glossy  
Date of printing: 20.10.2023



## Notice to reader

*The information contained in this safety data sheet is based on the present state of knowledge and EU and national legislation. It provides guidance on health, safety and environmental aspects for handling the product in a safe way and should not be construed as any guarantee of the technical performance or suitability for particular applications. It is always the duty of the user/employer to ascertain that the work is planned and carried out in accordance with the national regulations.*