

SAFETY DATA SHEET

Flügger

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

1.1 Product identifier

Trade name : Flügger Facade Resist

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

Identified uses : Paint.

1.3 Details of the supplier of the safety data sheet

Flügger Denmark A/S
Islevdalvej 151
DK-2610 Rødovre
Tlf. +45 76 30 33 80

e-mail address of person responsible for this SDS : produktsupportdk@flugger.com

1.4 Emergency telephone number

National advisory body/Poison Centre

Telephone number : Call a poison center or physician.

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Aquatic Chronic 3, H412

The product is classified as hazardous according to Regulation (EC) 1272/2008 as amended.

See Section 16 for the full text of the H statements declared above.

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

2.2 Label elements

Signal word : No signal word.

Hazard statements : H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

Prevention : P273 - Avoid release to the environment.

Response : Not applicable.

Storage : Not applicable.

Disposal : P501 - Dispose of contents/container to an approved waste disposal plant.

Supplemental label elements : Contains IPBC, BIT and CMIT/MIT (3:1). May produce an allergic reaction.
Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.

Contains a biocidal product that contains: CMIT/MIT (3:1).

Contains a biocidal product for the protection of the dry film. The biocidal product contains: IPBC.

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SECTION 2: Hazards identification

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Special packaging requirements

Containers to be fitted with child-resistant fastenings : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII : This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

Other hazards which do not result in classification : None known.

EU VOC : VOC limit value (Cat. A/c): 40 g/l (2010)
Product VOC: max. 2,5 g/l

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7 Index: 022-006-00-2	≥10 - ≤25	Carc. 2, H351 (inhalation)	-	[1] [*]
3-iodo-2-propynyl butylcarbamate (IPBC)	EC: 259-627-5 CAS: 55406-53-6	≤0,3	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) (inhalation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1470 mg/kg ATE [Inhalation (dusts and mists)] = 0,67 mg/l M [Acute] = 10 M [Chronic] = 1	[1]
1,2-benzisothiazol-3(2H)-one (BIT)	REACH #: 01-2120761540-60 EC: 220-120-9 CAS: 2634-33-5	<0,05	Acute Tox. 4, H302 Acute Tox. 1, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	ATE [Oral] = 675,3 mg/kg ATE [Inhalation (dusts and mists)] = 0,04 mg/l Skin Sens. 1, H317: C ≥ 0,05% M [Acute] = 1	[1]
bronopol (INN)	EC: 200-143-0 CAS: 52-51-7	<0,1	Acute Tox. 3, H301 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 Aquatic Chronic 2,	ATE [Oral] = 193 mg/kg ATE [Dermal] = 1100 mg/kg M [Acute] = 10	[1]

SECTION 3: Composition/information on ingredients

reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1) (CMIT/MIT(3:1))	CAS: 55965-84-9 Index: 613-167-00-5	<0,0015	H411 Acute Tox. 3, H301 Acute Tox. 2, H310 Acute Tox. 2, H330 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 See Section 16 for the full text of the H statements declared above.	ATE [Oral] = 100 mg/kg ATE [Dermal] = 51 mg/kg ATE [Inhalation (dusts and mists)] = 0,051 mg/l Skin Corr. 1C, H314: C ≥ 0,6% Skin Irrit. 2, H315: 0,06% ≤ C < 0,6% Eye Dam. 1, H318: C ≥ 0,6% Eye Irrit. 2, H319: 0,06% ≤ C < 0,6% Skin Sens. 1, H317: C ≥ 0,0015% M [Acute] = 100 M [Chronic] = 100	[1]
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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, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a health or environmental hazard

[*] The classification as a carcinogen by inhalation applies only to mixtures placed on the market in powder form containing 1% or more of titanium dioxide particles with aerodynamic diameter ≤ 10 µm not bound within a matrix.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
- Ingestion** : Wash out mouth with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel.
- Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

- Eye contact** : No specific data.
- Inhalation** : No specific data.
- Skin contact** : No specific data.
- Ingestion** : No specific data.

4.3 Indication of any immediate medical attention and special treatment needed

SECTION 4: First aid measures

- Notes to physician** : Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
- Specific treatments** : No specific treatment.

SECTION 5: Firefighting measures

5.1 Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire.
- Unsuitable extinguishing media** : None known.

5.2 Special hazards arising from the substance or mixture

- Hazards from the substance or mixture** : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
- Hazardous combustion products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

5.3 Advice for firefighters

- Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

- For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Put on appropriate personal protective equipment.
- For emergency responders** : If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

6.2 Environmental precautions

- : Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

6.3 Methods and material for containment and cleaning up

- Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

SECTION 6: Accidental release measures

- Large spill** : Stop leak if without risk. Move containers from spill area. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.
- 6.4 Reference to other sections** : 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.

SECTION 7: Handling and storage

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

7.1 Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapour or mist. Avoid release to the environment. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Advice on general occupational hygiene** : Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

7.2 Conditions for safe storage, including any incompatibilities

Store between the following temperatures: 0 to 40°C (32 to 104°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. 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. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

- Recommendations** : Not available.
- Industrial sector specific solutions** : Not available.

SECTION 8: Exposure controls/personal protection

The information in this section contains generic advice and guidance. Information is provided based on typical anticipated uses of the product. Additional measures might be required for bulk handling or other uses that could significantly increase worker exposure or environmental releases.

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

SECTION 8: Exposure controls/personal protection

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following:
European Standard EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) European Standard EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) European Standard EN 482 (Workplace atmospheres - General requirements for the performance of procedures for the measurement of chemical agents) Reference to national guidance documents for methods for the determination of hazardous substances will also be required.

DNELs/DMELs

Product/ingredient name	Type	Exposure	Value	Population	Effects
titanium dioxide	DNEL	Long term Inhalation	10 mg/m ³	Workers	Local
	DNEL	Long term Oral	700 mg/kg bw/day	General population	Systemic
BIT	DNEL	Long term Dermal	0,966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	6,81 mg/m ³	Workers	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0,345 mg/kg bw/day	General population	Systemic
bronopol	DNEL	Short term Dermal	0,008 mg/cm ²	General population	Local
	DNEL	Long term Dermal	0,008 mg/cm ²	General population	Local
	DNEL	Short term Dermal	0,013 mg/cm ²	Workers	Local
	DNEL	Long term Dermal	0,013 mg/cm ²	Workers	Local
	DNEL	Long term Oral	0,35 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	1,1 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	1,2 mg/m ³	General population	Systemic
	DNEL	Short term Inhalation	1,3 mg/m ³	General population	Local
	DNEL	Long term Inhalation	1,3 mg/m ³	General population	Local
	DNEL	Long term Dermal	1,4 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2,3 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	3,7 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	4,1 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	4,2 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	4,2 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	4,2 mg/m ³	Workers	Local
	DNEL	Short term Dermal	7 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	12,3 mg/m ³	Workers	Systemic

PNECs

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Compartment Detail	Value	Method Detail
titanium dioxide	Fresh water	0,184 mg/l	-
	Marine water	0,0184 mg/l	-
	Sewage Treatment Plant	100 mg/l	-
	Fresh water sediment	1000 mg/kg dwt	-
	Marine water sediment	100 mg/kg dwt	-
	Soil	100 mg/kg	-
	Fresh water	0,004 mg/l	-
	Marine water	0,0004 mg/l	-
	Sewage Treatment Plant	1,03 mg/l	-
	Fresh water sediment	0,0499 mg/kg dwt	-
BIT	Marine water sediment	0,00499 mg/kg dwt	-
	Soil	3 mg/kg dwt	-
	Fresh water	0,01 mg/l	-
	Marine water	0,0008 mg/l	-
	Sewage Treatment Plant	0,43 mg/l	-
	Fresh water sediment	0,041 mg/kg dwt	-
	Marine water sediment	0,00328 mg/kg dwt	-
	Soil	0,5 mg/kg dwt	-
bronopol	Fresh water	0,01 mg/l	-
	Marine water	0,0008 mg/l	-
	Sewage Treatment Plant	0,43 mg/l	-
	Fresh water sediment	0,041 mg/kg dwt	-
	Marine water sediment	0,00328 mg/kg dwt	-
	Soil	0,5 mg/kg dwt	-

8.2 Exposure controls

Appropriate engineering controls : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.

Individual protection measures

Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: Wear safety glasses with side protection in accordance with EN 166.

Skin protection

Hand protection : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. > 8 hours (breakthrough time): Wear suitable gloves tested to EN 374. Nitrile gloves.

Body protection : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. Recommended: Wear suitable protective clothing, e.g polypropylene coveralls or cotton / polyester workwear. When spraying, use a chemical-resistant suit with a hood that is EN-approved type 4, 5, 6 and Category III.

Other skin protection : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

SECTION 8: Exposure controls/personal protection

- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. In order to avoid inhalation of spray and abrasive dust, all spray and grinding work must be carried out with a suitable respirator (P2, EN 143).
- 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

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

9.1 Information on basic physical and chemical properties

Appearance

- Physical state** : Liquid.
- Colour** : Various
- Odour** : Characteristic.
- Odour threshold** : Not available.
- Melting point/freezing point** : Not available.
- Initial boiling point and boiling range** : Not available.
- Flammability** : Not available.
- Lower and upper explosion limit** : Not available.
- Flash point** : Not available.
- Auto-ignition temperature** : Not available.
- Decomposition temperature** : Not available.
- pH** : 8
- Viscosity** : Not available.
- Solubility in water** : Not available.
- Miscible with water** : Yes.
- Partition coefficient: n-octanol/ water** : Not applicable.
- Vapour pressure** : Not available.
- Evaporation rate** : Not available.
- Density** : 1,2 to 1,45 g/cm³
- Vapour density** : Not available.
- Explosive properties** : Not available.
- Oxidising properties** : Not available.
- Particle characteristics**
- Median particle size** : Not applicable.

SECTION 10: Stability and reactivity

- 10.1 Reactivity** : No specific test data related to reactivity available for this product or its ingredients.
- 10.2 Chemical stability** : The product is stable.
- 10.3 Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

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SECTION 10: Stability and reactivity

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

10.6 Hazardous decomposition products : Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

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

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
IPBC	LC50 Inhalation Dusts and mists	Rat	0,67 mg/l	4 hours
BIT	LD50 Oral	Rat	1470 mg/kg	-
	LC50 Inhalation Vapour	Rat	0,5 mg/l	4 hours
bronopol (INN)	LD50 Oral	Rat	1020 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	800 mg/m³	4 hours
CMIT/MIT (3:1)	LD50 Dermal	Rat	64 mg/kg	-
	LD50 Oral	Rat	180 mg/kg	-
	LD50 Oral	Rat	53 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Flügger Facade Resist	N/A	N/A	N/A	N/A	339,1
IPBC	1470	N/A	N/A	N/A	0,67
BIT	675,3	N/A	N/A	N/A	0,04
bronopol (INN)	193	1100	N/A	N/A	N/A
CMIT/MIT (3:1)	100	51	N/A	N/A	0,051

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
titanium dioxide	Skin - Mild irritant	Human	-	72 hours 300 ug l	-
BIT	Skin - Mild irritant	Human	-	48 hours 5 %	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
bronopol (INN)	Skin - Moderate irritant	Human	-	10 mg	-
	Skin - Moderate irritant	Rabbit	-	80 mg	-
	Skin - Severe irritant	Human	-	0.01 %	-
CMIT/MIT (3:1)					

Conclusion/Summary : Not available.

Sensitisation

Product/ingredient name	Route of exposure	Species	Result
BIT	skin	Guinea pig	Sensitising

Conclusion/Summary : Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

SECTION 11: Toxicological information

It has been observed that the carcinogenic hazard of this product arises when respirable dust is inhaled in quantities leading to significant impairment of particle clearance mechanisms in the lung.

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Product/ingredient name	Category	Route of exposure	Target organs
bronopol (INN)	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
IPBC	Category 1	inhalation	larynx

Aspiration hazard

Not available.

Information on likely routes of exposure : Not available.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : No specific data.

Skin contact : No specific data.

Ingestion : No specific data.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

Not available.

Conclusion/Summary : Not available.

General : No known significant effects or critical hazards.

Carcinogenicity : No known significant effects or critical hazards.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

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SECTION 11: Toxicological information

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 3 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 6,5 mg/l Fresh water	Daphnia - Daphnia pulex - Neonate	48 hours
	Acute LC50 >1000000 µg/l Marine water	Fish - Fundulus heteroclitus	96 hours
IPBC	Acute EC50 0,039 mg/l	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
	Acute LC50 500 ppb Fresh water	Crustaceans - Hyalella azteca	48 hours
	Acute LC50 40 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 67 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic EC10 0,025 mg/l	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	72 hours
BIT	Chronic NOEC 8,4 ppb	Fish - Pimephales promelas	35 days
	Acute EC50 97 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 10 to 20 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 167 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic EC10 0,04 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
bronopol (INN)	Acute EC50 0,02 ppm Fresh water	Algae - Desmodesmus subspicatus	96 hours
	Acute EC50 1,6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 11,17 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic NOEC 0,03 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
CMIT/MIT (3:1)	Chronic NOEC 1,94 ppm	Fish - Oncorhynchus mykiss	49 days
	EC50 0,1 mg/l	Daphnia - Daphnia magna	48 hours
	LC50 0,19 mg/l	Fish - Oncorhynchus mykiss	96 hours
	NOEC 0,004 mg/l	Daphnia - Daphnia magna	21 days
	NOEC 0,05 mg/l	Fish - Oncorhynchus mykiss	14 days

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
IPBC	-	-	Not readily
BIT	-	-	Readily
bronopol (INN)	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
IPBC	2,81	36	low
BIT	0,7	3,2	low
bronopol (INN)	0,18	3,16	low
CMIT/MIT (3:1)	0,401	-	low

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SECTION 12: Ecological information

12.4 Mobility in soil

Soil/water partition coefficient (K_{oc}) : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance. The list of Identified Uses in Section 1 should be consulted for any available use-specific information provided in the Exposure Scenario(s).

13.1 Waste treatment methods

Product

Methods of disposal : The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction.

Hazardous waste : Yes.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 11*	Waste paint and varnish containing organic solvents or other hazardous substances

Packaging

Methods of disposal : 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.

Special precautions : This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	Not regulated.	Not regulated.	Not regulated.
14.3 Transport hazard class (es)	Not regulated.	Not regulated.	Not regulated.
14.4 Packing group	-	-	-

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SECTION 14: Transport information

14.5 Environmental hazards	No.	No.	No.
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Additional information

IATA : The environmentally hazardous substance mark may appear if required by other transportation regulations.

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 Maritime transport in bulk according to IMO instruments : Not available.

SECTION 15: Regulatory information

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

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

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles : Not applicable.

Other EU regulations

Industrial emissions (integrated pollution prevention and control) - Air : Not listed

Industrial emissions (integrated pollution prevention and control) - Water : Not listed

Ozone depleting substances (1005/2009/EU)

Not listed.

Prior Informed Consent (PIC) (649/2012/EU)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

National regulations

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

SECTION 15: Regulatory information

Stockholm Convention on Persistent Organic Pollutants

Not listed.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

15.2 Chemical safety assessment

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

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and acronyms

: ATE = Acute Toxicity Estimate
CLP = Classification, Labelling and Packaging Regulation [Regulation (EC) No. 1272/2008]
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = CLP-specific Hazard statement
N/A = Not available
PBT = Persistent, Bioaccumulative and Toxic
PNEC = Predicted No Effect Concentration
RRN = REACH Registration Number
SGG = Segregation Group
vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H351	Suspected of causing cancer.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

Full text of classifications [CLP/GHS]

Flügger Facade Resist

SECTION 16: Other information

Acute Tox. 1	ACUTE TOXICITY - Category 1
Acute Tox. 2	ACUTE TOXICITY - Category 2
Acute Tox. 3	ACUTE TOXICITY - Category 3
Acute Tox. 4	ACUTE TOXICITY - Category 4
Aquatic Acute 1	SHORT-TERM (ACUTE) AQUATIC HAZARD - Category 1
Aquatic Chronic 1	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 1
Aquatic Chronic 2	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2
Aquatic Chronic 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE - Category 3

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Notice to reader

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Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.