SAFETY DATA SHEET

Broflame™ Ultra Base Coat

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

1.1 Product identifier

Product name : Broflame™ Ultra Base Coat

Product description : Paint

Product type : Liquid.

UFI : C5T5-Q32W-4VFF-5JUP

Product code : BLM0008

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

Identified uses
Industrial Professional Consumer

Uses advised against	Reason
None identified.	-

1.3 Details of the supplier of the safety data sheet

Bollom Fire Protection
Portobello Industrial Estate
Birtley
County Durham
United Kingdom
DH3 2RE
Telephone no.: +44 (0) 191 4106611
Fax no.: +44 (0) 191 4920125
enquiries@tor-coatings.com

e-mail address of person responsible for this SDS : rpmeurohas@rustoleum.eu

1.4 Emergency telephone number

National advisory body/Poison Centre

Supplier

Telephone number United Kingdom: Great Britain : +44 870 8200418 / +44 2038073798

Hours of operation : 24 / 7

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

Classification according to UK CLP/GHS

Carc. 2, H351
Repr. 2, H361f
Aquatic Chronic 3, H412

The product is classified as hazardous according to UK CLP Regulation SI 2019/720 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.

SECTION 2: Hazards identification

2.2 Label elements

Hazard pictograms :

Signal word : Warning

Hazard statements : H351 - Suspected of causing cancer.
H361f - Suspected of damaging fertility.
H412 - Harmful to aquatic life with long lasting effects.

Precautionary statements

General : P103 - Read carefully and follow all instructions.
P102 - Keep out of reach of children.
P101 - If medical advice is needed, have product container or label at hand.

Prevention : P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.

Response : P308 + P313 - IF exposed or concerned: Get medical advice or attention.

Storage : P405 - Store locked up.

Disposal : P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.

Hazardous ingredients : melamine

Supplemental label elements : EUH208 - Contains 1,2-benzisothiazol-3(2H)-one (BIT) and 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) (C(M)IT/MIT (3:1)). May produce an allergic reaction.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006 : Not applicable.

EU Biocidal Products Regulation (BPR), Article 58(3) Statement : Contains a biocidal product (in-can preservative):(BIT)

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 : Yes, 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.

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006. : Contains melamine. May cause endocrine disruption.

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

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Type
melamine	REACH #: 01-2119485947-16 EC: 203-615-4 CAS: 108-78-1	<10	Carc. 2, H351 Repr. 2, H361f STOT RE 2, H373 (urinary tract)	[1]
Boric acid, zinc salt	EC: 215-566-6 CAS: 1332-07-6	≤1	Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
1,2-benzisothiazol-3(2H)-one (BIT)	REACH #: 01-2120761540-60 EC: 220-120-9 CAS: 2634-33-5 Index: 613-088-00-6	<0,036	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 (M=1) Aquatic Chronic 1, H410 (M=1)	[1]
pyrithione zinc	REACH #: 01-2119511196-46 EC: 236-671-3 CAS: 13463-41-7 Index: 613-333-00-7	<0,01	Acute Tox. 3, H301 Acute Tox. 2, H330 Eye Dam. 1, H318 Repr. 1B, H360D STOT RE 1, H372 Aquatic Acute 1, H400 (M=1000) Aquatic Chronic 1, H410 (M=10)	[1]
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) (C(M)IT/MIT (3:1))	REACH #: 01-2120764691-48 CAS: 55965-84-9 Index: 613-167-00-5	<0,001	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 (M=100) Aquatic Chronic 1, H410 (M=100) EUH071 **See Section 16 for the full text of the H statements declared above.**	[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, 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

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. Continue to rinse for at least 10 minutes. Get medical attention.

SECTION 4: First aid measures

Inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

Skin contact : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Continue to rinse for at least 10 minutes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Ingestion : Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Protection of first-aiders : No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician : In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

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.

SECTION 5: Firefighting measures

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
halogenated compounds
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 British standard BS EN 469 will provide a basic level of protection for chemical incidents.

Additional information : No unusual hazard if involved in a fire.

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. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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. Absorb with an inert material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

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. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product. 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.

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.

7.1 Precautions for safe handling

Protective measures : Put on appropriate personal protective equipment (see Section 8). Avoid exposure - obtain special instructions before use. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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

Do not store below the following temperature: 0°C (32°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. Store locked up. 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

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

Biological exposure indices

No exposure indices known.

Recommended monitoring procedures : Reference should be made to monitoring standards, such as the following: British Standard BS EN 689 (Workplace atmospheres - Guidance for the assessment of exposure by inhalation to chemical agents for comparison with limit values and measurement strategy) British Standard BS EN 14042 (Workplace atmospheres - Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents) British Standard BS 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	Result	Value	Effects
melamine	**DNEL - Workers - Long term - Inhalation**	8,3 mg/m³	Effects: Systemic
	DNEL - General population - Long term - Oral	0,42 mg/kg bw/day	Effects: Systemic
	DNEL - General population - Long term - Inhalation	1,5 mg/m³	Effects: Systemic

SECTION 8: Exposure controls/personal protection

	DNEL - General population - Long term - Dermal	4,2 mg/kg bw/ day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	8,3 mg/m³	Effects: Systemic
	DNEL - Workers - Long term - Dermal	11,8 mg/kg bw/ day	Effects: Systemic
	DNEL - Workers - Short term - Inhalation	82,3 mg/m³	Effects: Systemic
	DNEL - Workers - Short term - Dermal	117 mg/kg bw/ day	Effects: Systemic
Boric acid, zinc salt	**DNEL - General population - Long term - Oral**	2,88 mg/kg bw/ day	Effects: Systemic
	DNEL - General population - Long term - Inhalation	9,9 mg/m³	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	26,8 mg/m³	Effects: Systemic
	DNEL - General population - Long term - Dermal	1439 mg/kg bw/ day	Effects: Systemic
	DNEL - Workers - Long term - Dermal	1893 mg/kg bw/ day	Effects: Systemic
1,2-benzisothiazol-3(2H)-one (BIT)	**DNEL - Workers - Long term - Inhalation**	6,81 mg/m³	Effects: Systemic
	DNEL - General population - Long term - Inhalation	1,2 mg/m³	Effects: Systemic
	DNEL - Workers - Long term - Dermal	0,966 mg/kg bw/day	Effects: Systemic
	DNEL - General population - Long term - Dermal	0,345 mg/kg bw/day	Effects: Systemic
pyrithione zinc	**DNEL - Workers - Long term - Dermal**	0,01 mg/kg bw/ day	Effects: Systemic
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) (C(M)IT/MIT (3:1))	**DNEL - Workers - Long term - Inhalation**	0,02 mg/m³	Effects: Local
	DNEL - Workers - Short term - Inhalation	0,04 mg/m³	Effects: Local
	DNEL - General population - Long term - Inhalation	0,02 mg/m³	Effects: Local
	DNEL - General population - Short term - Inhalation	0,04 mg/m³	Effects: Local
	DNEL - General population - Long term - Oral	0,09 mg/kg bw/ day	Effects: Systemic
	DNEL - General population - Short term - Oral	0,11 mg/kg bw/ day	Effects: Systemic

SECTION 8: Exposure controls/personal protection

PNECs

Product/ingredient name	Result	Value	Remarks
melamine	**Fresh water**	0,64 mg/l	-
	Marine water	0,064 mg/l	-
	Soil	1,7 mg/kg dwt	-
	Sediment	1,34 mg/kg dwt	-
1,2-benzisothiazol-3(2H)-one (BIT)	**Fresh water**	0,00403 mg/l	-
	Marine water	0,000403 mg/l	-
	Sewage Treatment Plant	1,03 mg/l	-
	Fresh water sediment	0,0499 mg/kg dwt	-
	Marine water sediment	0,00499 mg/kg dwt	-
	Soil	3 mg/kg dwt	-
pyrithione zinc	**Fresh water**	0,00009 mg/l	-
	Marine water	0,00009 mg/l	-
	Sewage Treatment Plant	0,01 mg/l	-
	Marine water sediment	0,0095 mg/kg	-
	Fresh water sediment	0,0095 mg/kg	-
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) (C(M)IT/MIT (3:1))	**Fresh water**	0,00339 mg/l	-
	Marine water	0,00339 mg/l	-
	Sewage Treatment Plant	0,23 mg/l	-
	Fresh water sediment	0,027 mg/kg	-
	Marine water sediment	0,027 mg/kg	-
	Soil	0,01 mg/kg	-

8.2 Exposure controls

Appropriate engineering controls : If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

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.

SECTION 8: Exposure controls/personal protection

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. Use eye protection according to EN 166. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields. Recommended: safety glasses with side-shields

Skin protection

There is no one glove material or combination of materials that will give unlimited resistance to any individual or combination of chemicals.
The breakthrough time must be greater than the end use time of the product.
The instructions and information provided by the glove manufacturer on use, storage, maintenance and replacement must be followed.
Gloves should be replaced regularly and if there is any sign of damage to the glove material.
Always ensure that gloves are free from defects and that they are stored and used correctly.
The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.
Barrier creams may help to protect the exposed areas of the skin but should not be applied once exposure has occurred.

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): nitrile rubber (0.5mm)

The recommendation for the type or types of glove to use when handling this product is based on information from the following source: EN374. The user must check that the final choice of type of glove selected for handling this product is the most appropriate and takes into account the particular conditions of use, as included in the user's risk assessment.

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 overalls or long sleeved shirt. (EN 467)

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.

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. Recommended: organic vapour (Type A) and particulate filter (EN 141).

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

Physical state : Liquid.

Colour : White.

Odour : Not available.

Odour threshold : Not available.

Melting point/freezing point : 0°C [Literature]

Initial boiling point and boiling range : >100°C (>212°F) [Literature]

SECTION 9: Physical and chemical properties

Flammability (solid, gas) : Non-flammable in the presence of the following materials or conditions: open flames, sparks and static discharge, heat and shocks and mechanical impacts. Non-flammable but will burn on prolonged exposure to flame or high temperature.

Lower and upper explosion limit : Does not contain sufficient volatile flammable components to form an explosive atmosphere under normal conditions of use.

Flash point : Not relevant due to nature of the product.

Auto-ignition temperature : Not relevant due to nature of the product.

Decomposition temperature : Not available.

pH : 7 to 8 [Conc. (% w/w): 100%] [OECD 122]

pH : Justification : Not available.

Viscosity : Dynamic (room temperature): 1300 to 1600 mPa·s [ASTM D562 [KU]]
Kinematic (room temperature): 937 to 1206 mm^2/s [calculated.]
Kinematic (40°C): Not available.

Solubility(ies) :

Media	Result
cold water	Soluble
hot water	Soluble

Solubility in water : Not available.

Miscible with water : Yes.

Partition coefficient: n-octanol/ water : Not applicable.

Vapour pressure :

	Vapour Pressure at 20˚C			Vapour pressure at 50˚C		
Ingredient name	**mm Hg**	**kPa**	**Method**	**mm Hg**	**kPa**	**Method**
water	17,5	2,3				
Polyphosphoric acids, ammonium salts	0	0			Not applicable	

Evaporation rate : <1 (butyl acetate = 1)

Relative density : 1,35 to 1,36

Density : 1,327 to 1,387 g/cm^3 [20°C (68°F)] [DIN 53217]

Vapour density : >1 [Air = 1]

Explosive properties : Non-explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
No unusual hazard if involved in a fire.

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.

10.4 Conditions to avoid : No specific data.

10.5 Incompatible materials : No specific data.

SECTION 10: Stability and reactivity

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 toxicological effects

Acute toxicity

Product/ingredient name	Result	Value
melamine	**Rat - Oral - LD50**	3161 mg/kg
1,2-benzisothiazol-3(2H)-one (BIT)	**Rat - Male - Oral - LD50**	490 mg/kg
	Rat - Male, Female - Inhalation - LC50 Dusts and mists	0,5 mg/l [4 hours]
	Rat - Inhalation - LC50 Dusts and mists	0,11 mg/l [4 hours]
pyrithione zinc	**Rat - Oral - LD50**	177 mg/kg
	Rabbit - Dermal - LD50	100 mg/kg
	Rat - Inhalation - LC50 Dusts and mists	140 mg/m³ [4 hours]
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) (C(M)IT/MIT (3:1))	**Rabbit - Dermal - LD50**	92,4 mg/kg
	Rat - Oral - LD50	64 mg/kg
	Rat - Male, Female - Inhalation - LC50 Dusts and mists	0,171 mg/l [4 hours]

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
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) (C(M)IT/MIT (3:1))	Toxic if swallowed.

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)
melamine	3161	N/A	N/A	N/A	N/A
1,2-benzisothiazol-3(2H)-one (BIT)	450	N/A	N/A	N/A	0,21
pyrithione zinc	221	N/A	N/A	N/A	0,14
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) (C(M)IT/MIT (3:1))	64	92,4	N/A	N/A	0,171

Skin corrosion/irritation

SECTION 11: Toxicological information

Product/ingredient name	Result	Exposure	Observation
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) (C(M)IT/MIT (3:1))	**Human - Skin - Severe irritant**	Amount/concentration applied: 0.01 %	-
	Rabbit - Skin - Severe irritant	-	Observation period: 1 to 4 hours

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
1,2-benzisothiazol-3(2H)-one (BIT)	Causes skin irritation. Fatal in contact with Skin
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) (C(M)IT/MIT (3:1))	

Serious eye damage/eye irritation

Product/ingredient name	Result	Exposure	Observation
melamine	**Rabbit - Eyes - Mild irritant**	Amount/concentration applied: 500 mg	-
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) (C(M)IT/MIT (3:1))	**Rabbit - Eyes - Severe irritant**	-	-

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
1,2-benzisothiazol-3(2H)-one (BIT)	Risk of serious damage to eyes.
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) (C(M)IT/MIT (3:1))	Risk of serious damage to eyes.

Respiratory corrosion/irritation

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
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) (C(M)IT/MIT (3:1))	May be fatal if swallowed and enters airways.

Respiratory or skin sensitization

Product/ingredient name	Species - Route of exposure	Result
1,2-benzisothiazol-3(2H)-one (BIT)	**Guinea pig - skin**	Result: Sensitising
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) (C(M)IT/MIT (3:1))	**Guinea pig - skin**	Result: Sensitising

SECTION 11: Toxicological information

Skin

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
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) (C(M)IT/MIT (3:1))	Strong Skin Sensitizer

Respiratory

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Ingredient name	Conclusion/Summary
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) (C(M)IT/MIT (3:1))	Based on available data, the classification criteria are not met.

Germ cell mutagenicity

Not available.

Conclusion/Summary [Product] : Based on available data, the classification criteria are not met.

Carcinogenicity

Not available.

Conclusion/Summary [Product] : Suspected of causing cancer.

Reproductive toxicity

Not available.

Conclusion/Summary [Product] : Suspected of damaging fertility or the unborn child.

Specific target organ toxicity (single exposure)

Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
melamine	STOT RE 2, H373 (urinary tract)
pyrithione zinc	STOT RE 1, H372

Aspiration hazard

Not available.

Information on likely routes of exposure

Routes of entry anticipated: Oral, Inhalation, Eyes.
Routes of entry not anticipated: Dermal.

Potential acute health effects

Eye contact : No known significant effects or critical hazards.

Inhalation : No known significant effects or critical hazards.

Skin contact : No known significant effects or critical hazards.

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Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : No specific data.

Inhalation : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Skin contact : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

Ingestion : Adverse symptoms may include the following:
reduced foetal weight
increase in foetal deaths
skeletal malformations

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 [Product] : Based on available data, the classification criteria are not met.

General : No known significant effects or critical hazards.

Carcinogenicity : Suspected of causing cancer. Risk of cancer depends on duration and level of exposure.

Mutagenicity : No known significant effects or critical hazards.

Reproductive toxicity : Suspected of damaging fertility.

Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species
1,2-benzisothiazol-3(2H)-one (BIT)	**Acute - EC50** 0,067 mg/l [72 hours]	Algae
	Acute - EC50 - Fresh water 2,94 mg/l [48 hours]	Daphnia spec. - Daphnia spec.
	Acute - EC50 - Marine water 0,9893 mg/l [96 hours]	Crustaceans
	Chronic - NOEC 0,21 mg/l [28 days]	Fish - Rainbow trout (oncorhynchus mykiss)
	Chronic - NOEC 1,2 mg/l [21 days]	Daphnia spec. - Daphnia spec.

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	Chronic - NOEC 90 mg/l [20 days]	Aquatic plants
	Acute - LC50 8 to 13 mg/l [96 hours]	Fish
	Acute - LC50 - Fresh water 2,18 mg/l [96 hours]	Fish - Rainbow trout (oncorhynchus mykiss)
	Acute - EC50 0,11 mg/l [72 hours]	Algae - Algae
	Chronic - NOEL 0,0403 mg/l [72 hours]	Algae - Algae
	Acute - LC50 - Fresh water 167 ppb [96 hours]	Fish - Rainbow trout,donaldson trout
	Acute - EC50 - Fresh water 97 ppb [48 hours]	Daphnia spec. - Water flea
pyrithione zinc	**Acute - EC50 - Fresh water** 80 µg/l [48 hours]	Crustaceans - Water flea
	Acute - EC50 - Fresh water 61 µg/l [48 hours]	Daphnia spec. - Water flea - Nauplii
	Acute - EC50 - Marine water 0,51 µg/l [96 hours]	Algae - Diatom
	Chronic - EC10 - Marine water 0,36 µg/l [96 hours]	Algae - Diatom
	Chronic - NOEC - Fresh water 2,7 ppb [21 days]	Daphnia spec. - Water flea
	Acute - EC50 - Fresh water 8,25 ppb [48 hours]	Daphnia spec. - Water flea
	Acute - LC50 - Fresh water 2,68 ppb [96 hours]	Fish - Fathead minnow
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) (C(M)IT/MIT (3:1))	**Acute - EC50 - Fresh water** 0,037 mg/l [48 hours]	Algae
	Chronic - NOEC 0,18 mg/l [21 days]	Daphnia spec. - Daphnia spec.
	Acute - EC50 - Fresh water 0,16 mg/l [48 hours]	Daphnia spec.
	Acute - LC50 - Fresh water 0,19 mg/l [96 hours]	Fish - Rainbow trout (oncorhynchus mykiss)
	Acute - NOEC - Marine water 0,004 mg/l [48 hours]	Algae
	Chronic - NOEC - Fresh water 0,02 mg/l [38 days]	Fish - Rainbow trout (oncorhynchus mykiss)

Conclusion/Summary [Product] : Harmful to aquatic life with long lasting effects.

SECTION 12: Ecological information

12.2 Persistence and degradability

Product/ingredient name	Test	Result
1,2-benzisothiazol-3(2H)-one (BIT)	-	>90% [1 days] - Readily
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) (C(M)IT/MIT (3:1))	-	>60% [28 days] - Readily
	-	<50% [10 days]

Conclusion/Summary [Product] : This product has not been tested for biodegradation. Based on available data, the classification criteria are not met.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
1,2-benzisothiazol-3(2H)-one (BIT)	-	-	Readily
pyrithione zinc	-	-	Inherent
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) (C(M)IT/MIT (3:1))	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	$LogP_{ow}$	BCF	Potential
melamine	-1,22	<3,8	Low
1,2-benzisothiazol-3(2H)-one (BIT)	0,64	-	Low
pyrithione zinc	0,9	11 [OECD 305 E]	Low
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) (C(M)IT/MIT (3:1))	-0.83 to 0.75	-	Low

12.4 Mobility in soil

Soil/water partition coefficient : Not available.

Mobility : Not available.

12.5 Results of PBT and vPvB assessment

SECTION 12: Ecological information

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
melamine	No	N/A	No	Yes	No	N/A	No
Boric acid, zinc salt	No	No	No	No	No	No	No
1,2-benzisothiazol-3(2H)-one (BIT)	No	N/A	N/A	No	N/A	N/A	N/A
pyrithione zinc	No	N/A	No	Yes	No	N/A	No
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) (C(M)IT/MIT (3:1))	N/A	N/A	N/A	Yes	N/A	N/A	N/A

12.6 Other adverse effects : No known significant effects or critical hazards.

SECTION 13: Disposal considerations

The information in this section contains generic advice and guidance.

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.

Waste catalogue

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

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	ADN	IMDG	IATA
14.1 UN number or ID number	Not regulated.	Not regulated.	Not regulated.	Not regulated.
14.2 UN proper shipping name	-	-	-	-
14.3 Transport hazard class(es)	-	-	-	-
14.4 Packing group	-	-	-	-
14.5 Environmental hazards	No.	No.	No.	No.

Additional information ADR

SECTION 14: Transport information

Additional information ADN

Additional information IMDG

Additional information IATA

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

UK (GB)/REACH

Annex XIV - List of substances subject to authorisation

Annex XIV

None of the components are listed above the relevant limit.

Substances of very high concern

None of the components are listed above the relevant limit.

Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles

Product/ingredient name	%	Designation [Usage]
Broflame™ Ultra Base Coat	≥90	3

Labelling : Not applicable.

Synthetic polymer microparticles - Designation 78

Generic identity of polymer(s) : Not applicable.

Total percentage of synthetic polymer microparticles : Not applicable.

Other EU regulations

VOC : The provisions of Directive 2004/42/EC on VOC apply to this product. Refer to the product label and/or technical data sheet for further information.

VOC for Ready-for-Use Mixture : IIA/i. One-pack performance coatings. EU limit value for this product : 140g/l (2010.) This product contains a maximum of 30 g/l VOC.

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

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

Ozone depleting substances

Not listed.

SECTION 15: Regulatory information

Prior Informed Consent (PIC)

Not listed.

Persistent Organic Pollutants

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

EU regulations

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

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

International regulations

Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

Montreal Protocol

Not listed.

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.

CN code : 3209 10 00 00

Inventory list

Australia : At least one component is not listed.

Canada : At least one component is not listed.

China : At least one component is not listed.

Eurasian Economic Union : **Russian Federation inventory**: Not determined.

Japan : **Japan inventory (CSCL)**: At least one component is not listed.
Japan inventory (ISHL): Not determined.

New Zealand : Not determined.

Philippines : Not determined.

Republic of Korea : At least one component is not listed.

Taiwan : At least one component is not listed.

Thailand : Not determined.

Turkey : Not determined.

United States : Not determined.

Viet Nam : Not determined.

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
GB CLP = UK CLP (EC No 1272/2008) on the Classification, Labelling and Packaging of Substances and Mixtures as amended by (EU Exit) Regulations 2019 No. 720 and amendments
DMEL = Derived Minimal Effect Level
DNEL = Derived No Effect Level
EUH statement = GB 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

Classification	Justification
Carc. 2, H351	Calculation method
Repr. 2, H361f	Calculation method
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.
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.
H351	Suspected of causing cancer.
H360D	May damage the unborn child.
H361f	Suspected of damaging fertility.
H372	Causes damage to organs through prolonged or repeated exposure.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH071	Corrosive to the respiratory tract.

Full text of classifications

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 3	LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 3
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
Repr. 1B	REPRODUCTIVE TOXICITY - Category 1B
Repr. 2	REPRODUCTIVE TOXICITY - Category 2
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

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SECTION 16: Other information

Notice to reader

IMPORTANT NOTE: The information in this Safety Data Sheet is based on the present state of knowledge and current legislation. It provides guidance on health, safety and environmental aspects of the product and should not be construed as any guarantee of technical performance or suitability for particular applications. The information contained in this data sheet (as may be amended from time to time) is not intended to be exhaustive and is presented in good faith and believed to be correct as of the date on which it is prepared. It is the user's responsibility to verify that this data sheet is current prior to using the product to which it relates. Persons using the information must make their own determinations as to the suitability of the relevant product for their purposes prior to use. Where those purposes are other than as specifically recommended in this safety data sheet, then the user uses the product at their own risk.

MANUFACTURER'S DISCLAIMER: the conditions, methods and factors affecting the handling, storage, application, use and disposal of the product are not under the control and knowledge of the manufacturer. Therefore the manufacturer does not assume responsibility for any adverse events which may occur in the handling, storage, application, use, misuse or disposal of the product and, so far as permitted by applicable law, the manufacturer expressly disclaims liability for any and all loss, damages and/or expenses arising out of or in any way connected to the storage, handling, use or disposal of the product. Safe handling, storage, use and disposal are the responsibility of the users. Users must comply with all applicable health and safety laws.

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.