



SAFETY DATA SHEET

Brosteel Ultra 60

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

1.1 Product identifier

Product name : Brosteel Ultra 60
Product description : Coating.
Product type : Liquid.
UFI : 4R81-708M-G00E-PKvh
Product code : BLM0001

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

Identified uses	
Industrial use	
Professional use	
Uses advised against	Reason
Consumer use	Product is not intended for consumer use.

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

Telephone number Ireland : 809 2166
Available 8am to 10pm 7 days per week

Supplier

Telephone number Ireland : +353 19014670
Hours of operation : 24 / 7

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]

Skin Sens. 1, H317
Carc. 2, H351
Repr. 2, H361f
STOT RE 2, H373 (urinary tract)

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

Brosteel Ultra 60

SECTION 2: Hazards identification

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

Hazard pictograms



Signal word

: Warning

Hazard statements

: H317 - May cause an allergic skin reaction.
H351 - Suspected of causing cancer.
H361f - Suspected of damaging fertility.
H373 - May cause damage to organs (urinary tract) through prolonged or repeated exposure.

Precautionary statements

General

: Not applicable.

Prevention

: P201 - Obtain special instructions before use.
P280 - Wear protective gloves, protective clothing and eye or face protection.
P260 - Do not breathe vapour or spray.

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
1,2-benzisothiazol-3(2H)-one (BIT)
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))

Supplemental label elements

: Not applicable.

Supplemental label elements : Detergents - Regulation (EC) No 907/2006

: Not applicable.

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.

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SECTION 2: Hazards identification

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.

Product meets the criteria for endocrine disrupting properties according to Regulation (EC) No. 1907/2006.

Other hazards which do not result in classification

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Ireland

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
Melamine	REACH #: 01-2119485947-16 EC: 203-615-4 CAS: 108-78-1	≥10 - ≤25	Carc. 2, H351 Repr. 2, H361f STOT RE 2, H373 (urinary tract)	-	[1] [2] [3]
tris(2-chloro-1-methylethyl) phosphate	REACH #: 01-2119486772-26 CAS: 13674-84-5 List #: 911-815-4	≤5	Acute Tox. 4, H302	ATE [Oral] = 1500 mg/kg	[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	<0,1	Acute Tox. 4, H302 Acute Tox. 2, H330 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 450 mg/kg ATE [Inhalation (dusts and mists)] = 0,21 mg/l Skin Sens. 1, H317: C ≥ 0,036% M [Acute] = 1 M [Chronic] = 1	[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 List #: 611-341-5	<0,0015	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	ATE [Oral] = 64 mg/kg ATE [Dermal] = 92,4 mg/kg ATE [Inhalation (dusts and mists)] = 0,171 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]

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

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SECTION 3: Composition/information on ingredients

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

- Substance classified with a health or environmental hazard
- [2] Substance of equivalent concern
- [3] Substance of equivalent concern - Endocrine disrupting properties

List numbers have no legal significance.

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

SECTION 4: First aid measures

4.1 Description of first aid measures

Eye contact	<ul style="list-style-type: none">: 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.
Inhalation	<ul style="list-style-type: none">: 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	<ul style="list-style-type: none">: Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
Ingestion	<ul style="list-style-type: none">: 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	<ul style="list-style-type: none">: 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. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

Eye contact	<ul style="list-style-type: none">: No specific data.
Inhalation	<ul style="list-style-type: none">: Adverse symptoms may include the following: reduced foetal weight increase in foetal deaths skeletal malformations
Skin contact	<ul style="list-style-type: none">: Adverse symptoms may include the following: irritation redness reduced foetal weight increase in foetal deaths skeletal malformations

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SECTION 4: First aid measures

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.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
nitrogen oxides
phosphorus 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 European standard 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).

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SECTION 6: Accidental release measures

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). Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. 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 breathe vapour or mist. Do not ingest. 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

Store between the following temperatures: 5 to 25°C (41 to 77°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.

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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 / Biological exposure indices

No exposure limit value known.

No exposure indices known.

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	Result	Value	Effects
Melamine	DNEL - Workers - Long term - Inhalation	8,3 mg/m ³	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/m ³	Effects: Systemic
	DNEL - General population - Long term - Dermal	4,2 mg/kg bw/ day	Effects: Systemic
	DNEL - Workers - Long term - Inhalation	8,3 mg/m ³	Effects: Systemic
	DNEL - Workers - Long term - Dermal	11,8 mg/kg bw/ day	Effects: Systemic
	DNEL - Workers - Short term - Inhalation	82,3 mg/m ³	Effects: Systemic
	DNEL - Workers - Short term - Dermal	117 mg/kg bw/ day	Effects: Systemic
1,2-benzisothiazol-3(2H)-one (BIT)	DNEL - Workers - Long term - Inhalation	6,81 mg/m ³	Effects: Systemic
	DNEL - General population - Long term - Inhalation	1,2 mg/m ³	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
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.	DNEL - Workers - Long term - Inhalation	0,02 mg/m ³	Effects: Local

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SECTION 8: Exposure controls/personal protection

220-239-6] (3:1) (C(M)IT/MIT (3:1))	DNEL - Workers - Short term - Inhalation	0,04 mg/m ³	<u>Effects:</u> Local
	DNEL - General population - Long term - Inhalation	0,02 mg/m ³	<u>Effects:</u> Local
	DNEL - General population - Short term - Inhalation	0,04 mg/m ³	<u>Effects:</u> Local
	DNEL - General population - Long term - Oral	0,09 mg/kg bw/day	<u>Effects:</u> Systemic
	DNEL - General population - Short term - Oral	0,11 mg/kg bw/day	<u>Effects:</u> Systemic

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	-
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.

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SECTION 8: Exposure controls/personal protection

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. Contaminated work clothing should not be allowed out of the workplace. 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. 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.

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 (as filter combination A-P2) (EN 140).

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.

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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	: Characteristic.										
Odour threshold	: Not available.										
Melting point/freezing point	: 0°C [Literature]										
Initial boiling point and boiling range	: >100°C (>212°F) [Literature]										
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. Nonflammable, but will burn on prolonged exposure to flame or high temperature. <input checked="" type="checkbox"/> Does not contain sufficient volatile flammable components to form an explosive atmosphere under normal conditions of use.										
Lower and upper explosion limit	: <input checked="" type="checkbox"/> 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	: 8 to 9,5 [Conc. (% w/w): 100%] [OECD 122]										
pH : Justification	: Not available.										
Viscosity	: Dynamic (room temperature): Not available. Kinematic (room temperature): Not available. Kinematic (40°C): Not available.										
Solubility(ies)	: <table border="1"><thead><tr><th>Media</th><th>Result</th></tr></thead><tbody><tr><td>cold water</td><td>Soluble</td></tr><tr><td>hot water</td><td>Soluble</td></tr><tr><td>methanol</td><td>Very slightly soluble</td></tr><tr><td>acetone</td><td>Very slightly soluble</td></tr></tbody></table>	Media	Result	cold water	Soluble	hot water	Soluble	methanol	Very slightly soluble	acetone	Very slightly soluble
Media	Result										
cold water	Soluble										
hot water	Soluble										
methanol	Very slightly soluble										
acetone	Very slightly soluble										
Solubility in water	: Not available.										
Miscible with water	: Yes.										
Partition coefficient: n-octanol/ water	: Not applicable.										
Vapour pressure	: 2,3 kPa (17,25 mm Hg) [Literature]										
Evaporation rate	: <1 (butyl acetate = 1)										
Relative density	: Not available.										
Density	: <input checked="" type="checkbox"/> 1,35 to 1,41 g/cm³ [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.										

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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.

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	Value
melamine	Rat - Oral - LD50	3161 mg/kg
tris(2-chloro-1-methylethyl) phosphate	Rat - Oral - LD50	1500 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]
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

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))

Conclusion/Summary

Toxic if swallowed.

Acute toxicity estimates

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SECTION 11: Toxicological information

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Brosteel Ultra 60	30303,0	N/A	N/A	N/A	N/A
melamine	3161	N/A	N/A	N/A	N/A
tris(2-chloro-1-methylethyl) phosphate	1500	N/A	N/A	N/A	N/A
1,2-benzisothiazol-3(2H)-one (BIT)	450	N/A	N/A	N/A	0,21
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

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	<u>Amount/concentration applied:</u> 0.01 %	-
	Rabbit - Skin - Severe irritant	-	<u>Observation period:</u> 1 to 4 hours

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

Ingredient name

1,2-benzisothiazol-3(2H)-one (BIT)
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))

Conclusion/Summary

Causes skin irritation.
Fatal in contact with Skin

Serious eye damage/eye irritation

Product/ingredient name	Result	Exposure	Observation
melamine	Rabbit - Eyes - Mild irritant	<u>Amount/concentration applied:</u> 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

1,2-benzisothiazol-3(2H)-one (BIT)
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))

Conclusion/Summary

Risk of serious damage to eyes.
Risk of serious damage to eyes.

Respiratory corrosion/irritation

Not available.

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Conclusion/Summary [Product] : May cause damage to organs through prolonged or repeated exposure.

Ingredient name

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))

Conclusion/Summary

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	<u>Result:</u> 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	<u>Result:</u> Sensitising

Skin

Conclusion/Summary [Product] : May cause an allergic skin reaction.

Ingredient name

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))

Conclusion/Summary

Strong Skin Sensitizer

Respiratory

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

Ingredient name

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))

Conclusion/Summary

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)

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Not available.

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Result
melamine	STOT RE 2, H373 (urinary tract)

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	: May cause an allergic skin reaction.
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: irritation redness 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 : May cause damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.

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.

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SECTION 11: Toxicological information

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : May cause endocrine disruption.

11.2.2 Other information

Not available.

SECTION 12: Ecological information

12.1 Toxicity

Product/ingredient name	Result	Species
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.
	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
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.

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	Acute - LC50 - Fresh water 0,19 mg/l [96 hours]	Fish - Rainbow trout (<i>oncorhynchus mykiss</i>)
	Acute - NOEC - Marine water 0,004 mg/l [48 hours]	Algae
	Chronic - NOEC - Fresh water 0,02 mg/l [38 days]	Fish - Rainbow trout (<i>oncorhynchus mykiss</i>)

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

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.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
Brosteel Ultra 60	-	-	Inherent
1,2-benzisothiazol-3(2H)-one (BIT)	-	-	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))	-	-	Inherent

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
melamine	-1,22	<3,8	Low
tris(2-chloro-1-methylethyl) phosphate	2,68	0,8 to 2,8	Low
1,2-benzisothiazol-3(2H)-one (BIT)	0,64	-	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

Product/ingredient name	logK _{oc}	K _{oc}
melamine	1,7	45,8075
1,2-benzisothiazol-3(2H)-one (BIT)	1,9	73,142

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SECTION 12: Ecological information

Results of PMT and vPvM assessment

Product/ingredient name	PMT	P	M	T	vPvM	vP	vM
melamine tris(2-chloro-1-methylethyl) phosphate 1,2-benzisothiazol-3(2H)-one (BIT) 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))	No No No No						

Mobility : Nonvolatile liquid.

Conclusion/Summary : The product does not meet the criteria to be considered as a PMT or vPvM.

12.5 Results of PBT and vPvB assessment

Regulation (EC) No. 1907/2006 [REACH]

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
melamine tris(2-chloro-1-methylethyl) phosphate 1,2-benzisothiazol-3(2H)-one (BIT) 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))	No No No N/A	N/A N/A N/A N/A	No No N/A N/A	Yes No No Yes	No No N/A N/A	N/A N/A N/A N/A	No No N/A N/A

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

Product/ingredient name	PBT	P	B	T	vPvB	vP	vB
melamine tris(2-chloro-1-methylethyl) phosphate 1,2-benzisothiazol-3(2H)-one (BIT) 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))	No No No No						

Conclusion/Summary : The product does not meet the criteria to be considered as a PBT or vPvB.

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

12.6 Endocrine disrupting properties

Not available.

Conclusion/Summary [Product] : May cause endocrine disruption.

12.7 Other adverse effects

Date of issue/Date of revision

: 28/10/2025

Date of previous issue

: 5/05/2025

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SECTION 12: Ecological information

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.

European waste catalogue (EWC)

Waste code	Waste designation
08 01 15*	aqueous sludges containing paint or 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

Additional information ADN

Additional information IMDG

Additional information IATA

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SECTION 14: Transport information

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

Intrinsic property	Ingredient name	Status	Reference number	Date of revision
Substance of equivalent concern for human health	melamine	Recommended	12th recommendation	08/02/2024
Substance of equivalent concern for environment	melamine	Recommended	12th recommendation	08/02/2024
Endocrine disrupting properties for human health	melamine	Candidate	-	-
Endocrine disrupting properties for environment	melamine	Candidate	-	-

[Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles](#)

Product/ingredient name	%	Designation [Usage]
Brosteel Ultra 60	≥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 : 2004/42/EC - IIA/i: 140g/l (2010). <= 15g/l VOC.

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

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SECTION 15: Regulatory information

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

Explosive precursors : Not applicable.

Ozone depleting substances (EU 2024/590)

Not listed.

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

Not listed.

Persistent Organic Pollutants (850/2004/EC)

Not listed.

Seveso Directive

This product is not controlled under the Seveso Directive.

Ireland

Biocidal products regulation : Not applicable.

References : Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001)
Safety, Health and Welfare at Work (Carcinogens) Regulations 2001 (S.I. No. 78 of 2001)
Safety, Health and Welfare at Work (General Application) Regulations 2007
Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by Regulation (EU) No. 2020/878
REGULATION (EU) 2016/425 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 9 March 2016 on personal protective equipment and repealing Council Directive 89/686/EEC

International regulations

Stockholm Convention on Persistent Organic Pollutants

List name	Ingredient name	Status
Not listed.		

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

List name	Ingredient name	Status
Not listed.		

CN code : 3209 90 00 00

Inventory list

Australia : All components are listed or exempted.

Canada : At least one component is not listed.

China : All components are listed or exempted.

Eurasian Economic Union : **Russian Federation inventory**: All components are listed or exempted.

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

New Zealand : All components are listed or exempted.

Philippines : At least one component is not listed.

Republic of Korea : All components are listed or exempted.

Taiwan : At least one component is not listed.

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SECTION 15: Regulatory information

Thailand	: <input checked="" type="checkbox"/> All components are listed or exempted.
Turkey	: Not determined.
United States	: Not determined.
Viet Nam	: <input checked="" type="checkbox"/> All components are listed or exempted.
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
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Procedure used to derive the classification according to Regulation (EC) No. 1272/2008 [CLP/GHS]

Classification	Justification
Skin Sens. 1, H317	Calculation method
Carc. 2, H351	Calculation method
Repr. 2, H361f	Calculation method
STOT RE 2, H373 (urinary tract)	Calculation method

Full text of abbreviated H statements

Ireland

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. H361f Suspected of damaging fertility. 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.
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Full text of classifications [CLP/GHS]

: 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
: Carc. 2	CARCINOGENICITY - Category 2
: Eye Dam. 1	SERIOUS EYE DAMAGE/EYE IRRITATION - Category 1
: Repr. 2	REPRODUCTIVE TOXICITY - Category 2
: Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
: Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2

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SECTION 16: Other information

Skin Sens. 1	SKIN SENSITISATION - Category 1
Skin Sens. 1A	SKIN SENSITISATION - Category 1A
STOT RE 2	SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 2

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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.