



Conforms to Regulation (EC) No. 1907/2006 (REACH), Annex II, as amended by UK REACH Regulation SI 2019/758

SAFETY DATA SHEET

CETOL BL OPAQUE N00

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

1.1 Product identifier

Product name : CETOL BL OPAQUE N00

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

Identified uses
Consumer use
Uses advised against
None

Product use : Waterborne coating for exterior use.

1.3 Details of the supplier of the safety data sheet

Akzo Nobel Decorative Coatings,
Wexham Road,
Slough, Berkshire,
United Kingdom, SL2 5DS,
Tel.: +44 (0) 333 222 70 70
www.sikkens.co.uk

e-mail address of person responsible for this SDS : sikkens.advice@akzonobel.com

1.4 Emergency telephone number

National advisory body/Poison Center

Telephone number : +44 (0)344 892 0111

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition : Mixture

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

Aquatic Chronic 3, H412

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

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

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

2.2 Label elements

Signal word : No signal word.

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1/20

AkzoNobel

SECTION 2: Hazards identification

Hazard statements	: H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements	
General	: P102 - Keep out of reach of children. P101 - If medical advice is needed, have product container or label at hand.
Prevention	: P273 - Avoid release to the environment.
Response	: Not applicable.
Storage	: Not applicable.
Disposal	: P501 - Dispose of contents and container in accordance with all local, regional, national or international regulations.
Supplemental label elements	: Contains 3-iodo-2-propynyl butylcarbamate, 1,2-benzisothiazol-3(2H)-one, octhiline (ISO), CMIT/MIT(3:1), MBIT and 2-methyl-2H-isothiazol-3-one. May produce an allergic reaction. Warning! Hazardous respirable droplets may be formed when sprayed. Do not breathe spray or mist.
Annex XVII - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles	:
Special packaging requirements	
Containers to be fitted with child-resistant fastenings	: Not applicable.
Tactile warning of danger	: Not applicable.

2.3 Other hazards

Product meets the criteria for PBT or vPvB according to Regulation (EC) No. 1907/2006, Annex XIII	: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.
Other hazards which do not result in classification	: None known.

SECTION 3: Composition/information on ingredients

3.2 Mixtures : Mixture

Product/ingredient name	Identifiers	%	Classification	Specific Conc. Limits, M-factors and ATEs	Type
titanium dioxide	REACH #: 01-2119489379-17 EC: 236-675-5 CAS: 13463-67-7	≤5	Carc. 2, H351 (inhalation)	-	[1] [*]
3-iodo-2-propynyl butylcarbamate	EC: 259-627-5 CAS: 55406-53-6	<1	Acute Tox. 4, H302 Acute Tox. 3, H331 Eye Dam. 1, H318 Skin Sens. 1, H317 STOT RE 1, H372 (larynx) (inhalation) Aquatic Acute 1, H400 Aquatic Chronic 1, H410	ATE [Oral] = 1056 mg/kg ATE [Inhalation (dusts and mists)] = 0.68 mg/l M [Acute] = 10 M [Chronic] = 1	[1]

SECTION 3: Composition/information on ingredients

1,2-benzisothiazol-3(2H)-one	REACH #: 01-2120761540-60 EC: 220-120-9 CAS: 2634-33-5	<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 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]
bronopol	REACH #: 01-2119980938-15 EC: 200-143-0 CAS: 52-51-7 Index: 603-085-00-8	≤0.1	Acute Tox. 4, H302 Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400	ATE [Oral] = 500 mg/kg ATE [Dermal] = 1100 mg/kg M [Acute] = 10	[1]
2,2'-dithiobis[N-methylbenzamide]	EC: 219-768-5 CAS: 2527-58-4	≤0.1	Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 2, H411	M [Acute] = 10	[1]
2-octyl-2H-isothiazol-3-one	EC: 247-761-7 CAS: 26530-20-1 Index: 613-112-00-5	<0.0015	Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 125 mg/kg ATE [Dermal] = 311 mg/kg ATE [Inhalation (dusts and mists)] = 0.27 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 100 M [Chronic] = 100	[1]
CMIT/MIT(3:1)	REACH #: 01-2120764691-48 EC: 911-418-6 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 Aquatic Chronic 1, H410 EUH071	ATE [Oral] = 100 mg/kg ATE [Dermal] = 50 mg/kg ATE [Inhalation (dusts and mists)] = 0.05 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]
MBIT	CAS: 2527-66-4	<0.0015	Acute Tox. 3, H301 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Corr. 1C, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400	ATE [Oral] = 175 mg/kg ATE [Dermal] = 1100 mg/kg ATE [Inhalation (dusts and mists)] = 1.5 mg/l	[1]

SECTION 3: Composition/information on ingredients

2-methyl-2H-isothiazol-3-one	REACH #: 01-2120764690-50 EC: 220-239-6 CAS: 2682-20-4 Index: 613-326-00-9	<0.0015	Aquatic Chronic 2, H411 EUH071 Acute Tox. 3, H301 Acute Tox. 3, H311 Acute Tox. 2, H330 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1A, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410 EUH071 See Section 16 for the full text of the H statements declared above.	Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 1 ATE [Oral] = 100 mg/kg ATE [Dermal] = 300 mg/kg ATE [Inhalation (dusts and mists)] = 0.05 mg/l Skin Sens. 1, H317: C ≥ 0.0015% M [Acute] = 10 M [Chronic] = 1	[1]
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There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment, are PBTs, vPvBs or Substances of equivalent concern, or have been assigned a workplace exposure limit and hence require reporting in this section.

Type

[1] Substance classified with a physical, health or environmental hazard

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

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

SECTION 4: First aid measures

4.1 Description of first aid measures

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

4.2 Most important symptoms and effects, both acute and delayed

Over-exposure signs/symptoms

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

4.3 Indication of any immediate medical attention and special treatment needed

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

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media : Use an extinguishing agent suitable for the surrounding fire.

Unsuitable extinguishing media : None known.

5.2 Special hazards arising from the substance or mixture

Hazards from the substance or mixture : In a fire or if heated, a pressure increase will occur and the container may burst. This material is harmful to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.

Hazardous combustion products : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

5.3 Advice for firefighters

Special protective actions for fire-fighters : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

Special protective equipment for fire-fighters : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

For emergency responders : If specialized 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 spilled 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 materials for containment and cleaning up

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

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

SECTION 6: Accidental release measures

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

7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

7.3 Specific end use(s)

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

SECTION 8: Exposure controls/personal protection

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

8.1 Control parameters

Occupational exposure limits

No exposure limit value known.

- Recommended monitoring procedures : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment. 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

SECTION 8: Exposure controls/personal protection

Product/ingredient name	Type	Exposure	Value	Population	Effects
titanium dioxide	DNEL	Long term Inhalation	28 µg/m ³	General population	Local
	DNEL	Long term Inhalation	170 µg/m ³	Workers	Local
3-iodo-2-propynyl butylcarbamate	DNEL	Long term Inhalation	0.023 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	0.07 mg/m ³	Workers	Systemic
	DNEL	Short term Inhalation	1.16 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	1.16 mg/m ³	Workers	Local
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Dermal	0.345 mg/kg bw/day	General population	Systemic
1,2-benzisothiazol-3(2H)-one	DNEL	Long term Dermal	0.966 mg/kg bw/day	Workers	Systemic
	DNEL	Long term Inhalation	1.2 mg/m ³	General population	Systemic
	DNEL	Long term Inhalation	6.81 mg/m ³	Workers	Systemic
	DNEL	Short term Oral	0.5 mg/kg bw/day	General population	Systemic
bronopol	DNEL	Short term Inhalation	1.8 mg/m ³	General population	Systemic
	DNEL	Short term Dermal	2.1 mg/kg bw/day	General population	Systemic
	DNEL	Short term Dermal	6 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	10.5 mg/m ³	Workers	Systemic
	DNEL	Short term Dermal	4 µg/cm ²	General population	Local
	DNEL	Long term Dermal	4 µg/cm ²	General population	Local
	DNEL	Short term Dermal	8 µg/cm ²	Workers	Local
	DNEL	Long term Dermal	8 µg/cm ²	Workers	Local
	DNEL	Long term Oral	0.18 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.6 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.6 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.6 mg/m ³	General population	Systemic
	DNEL	Long term Dermal	0.7 mg/kg bw/day	General population	Systemic
	DNEL	Long term Dermal	2 mg/kg bw/day	Workers	Systemic
	DNEL	Short term Inhalation	2.5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	2.5 mg/m ³	Workers	Local
	DNEL	Long term Inhalation	3.5 mg/m ³	Workers	Systemic
CMIT/MIT(3:1)	DNEL	Long term Inhalation	0.02 mg/m ³	General population	Local

SECTION 8: Exposure controls/personal protection

2-methyl-2H-isothiazol-3-one	DNEL	Long term Inhalation	0.02 mg/m ³	Workers	Local
	DNEL	Short term Inhalation	0.04 mg/m ³	General population	Local
	DNEL	Short term Inhalation	0.04 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.09 mg/kg bw/day	General population	Systemic
	DNEL	Short term Oral	0.11 mg/kg bw/day	General population	Systemic
	DNEL	Long term Inhalation	0.021 mg/m ³	General population	Local
	DNEL	Long term Inhalation	0.021 mg/m ³	Workers	Local
	DNEL	Long term Oral	0.027 mg/kg bw/day	General population	Systemic
	DNEL	Short term Inhalation	0.043 mg/m ³	General population	Local
	DNEL	Short term Inhalation	0.043 mg/m ³	Workers	Local
	DNEL	Short term Oral	0.053 mg/kg bw/day	General population	Systemic

PNECs

Product/ingredient name	Compartment Detail	Value	Method Detail
acrylic acid	Fresh water	0.003 mg/l	Assessment Factors
	Marine water	0.3 µg/l	Assessment Factors
	Sewage Treatment Plant	0.9 mg/l	Assessment Factors
	Fresh water sediment	0.024 mg/kg dwt	Equilibrium Partitioning
	Marine water sediment	0.002 mg/kg dwt	Equilibrium Partitioning
	Soil	1 mg/kg dwt	Assessment Factors
	Secondary Poisoning	30 mg/kg	Assessment Factors

8.2 Exposure controls

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

Individual protection measures

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

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

Skin protection

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

SECTION 8: Exposure controls/personal protection

When prolonged or frequently repeated contact may occur, a glove with a protection class of 6 (breakthrough time >480 minutes according to EN374) is recommended. Recommended gloves: Viton ® or Nitrile, thickness ≥ 0.38 mm. When only brief contact is expected, a glove with protection class of 2 or higher (breakthrough time >30 minutes according to EN374) is recommended. Recommended gloves: Nitrile, thickness ≥ 0.12 mm. Gloves should be replaced regularly and if there is any sign of damage to the glove material.

The performance or effectiveness of the glove may be reduced by physical/chemical damage and poor maintenance.

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.
- 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. Wear a respirator conforming to EN140 with type A/P2 filter or better. Dry sanding, flame cutting and/or welding of the dry paint film will give rise to dust and/or hazardous fumes. Wet sanding/flattening should be used wherever possible. If exposure cannot be avoided by the provision of local exhaust ventilation, suitable respiratory protective equipment should be used.
- Environmental exposure controls

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

SECTION 9: Physical and chemical properties

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

9.1 Information on basic physical and chemical properties

Appearance

- Physical state

: Liquid.
- Color

: Colorless.
- Odor

: Characteristic.
- Odor threshold

: Not available.
- Melting point/freezing point

: Not available.
- Boiling point, initial boiling point, and boiling range

: 100°C (212°F)
- Flammability

: Not available.
- Lower and upper explosion limit

: Greatest known range: Lower: 0.9% Upper: 9.2% (2,2'-(ethylenedioxy)diethanol)
- Flash point

: Not available.
- Auto-ignition temperature

:

Ingredient name	°C	°F	Method
2,2'-(ethylenedioxy)diethanol	347	656.6	

SECTION 9: Physical and chemical properties

Decomposition temperature : Not available.

pH : 8 [Conc. (% w/w): 100%] [DIN EN 1262]

Viscosity : Kinematic (room temperature): 1401 mm²/s [DIN EN ISO 3219]
Kinematic (40°C): Not applicable. [DIN EN ISO 3219]

Solubility(ies) :

Media	Result
cold water	Soluble [OECD (TG 105)]

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

Vapor pressure :

Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
	mm Hg	kPa	Method	mm Hg	kPa	Method
2,2'-(ethylenedioxy)diethanol	0.00049	0.000065				

Relative density : 1.141

Vapor density : Not available.

Particle characteristics

Median particle size : Not applicable.

Percentage of particles with aerodynamic diameter ≤ 10 µm : 0

Minimum ignition energy (mJ) : Not available.

Fundamental burning velocity : Not applicable.

SADT : Not available.

Heat of combustion : Not available.

Aerosol product

Type of aerosol : 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.

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

There are no data available on the mixture itself. The mixture has been assessed following the conventional method of the CLP Regulation (EC) No 1272/2008 and is classified for toxicological properties accordingly. See Sections 2 and 3 for details.

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
3-iodo-2-propynyl butylcarbamate	LC50 Inhalation Dusts and mists	Rat	0.68 mg/l	4 hours
	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat - Female	1056 mg/kg	-
1,2-benzisothiazol-3(2H)-one	LD50 Oral	Mouse	1150 mg/kg	-
	LD50 Oral	Rat	1020 mg/kg	-
	LC50 Inhalation Dusts and mists	Rat	800 mg/m³	4 hours
bronopol	LD50 Dermal	Mouse	4750 mg/kg	-
	LD50 Dermal	Rat	64 mg/kg	-
	LD50 Intraperitoneal	Mouse	32.8 mg/kg	-
	LD50 Intraperitoneal	Mouse	15500 µg/kg	-
	LD50 Intraperitoneal	Rat	22 mg/kg	-
	LD50 Intraperitoneal	Rat	26 mg/kg	-
	LD50 Intravenous	Mouse	48 mg/kg	-
	LD50 Intravenous	Rat	37400 µg/kg	-
	LD50 Oral	Mouse	270 mg/kg	-
	LD50 Oral	Mouse	194 mg/kg	-
	LD50 Oral	Rabbit	190 mg/kg	-
	LD50 Oral	Rat	180 mg/kg	-
	LD50 Oral	Rat	267 mg/kg	-
	LD50 Oral	Rat	254 mg/kg	-
	LD50 Oral	Rat	342 mg/kg	-
	LD50 Subcutaneous	Mouse	116 mg/kg	-
	LD50 Subcutaneous	Rat	170 mg/kg	-
	LD50 Subcutaneous	Rat	200 mg/kg	-
	LD50 Dermal	Rabbit	>2000 mg/kg	-
2,2'-dithiobis[N-methylbenzamide]	LD50 Oral	Rat	>5000 mg/kg	-
	LD50 Dermal	Rabbit	690 mg/kg	-
	LD50 Oral	Rat	550 mg/kg	-
2-octyl-2H-isothiazol-3-one	LD50 Dermal	Rat	1100 mg/kg	-
	LD50 Oral	Rat	175 mg/kg	-
MBIT	LD50 Dermal	Rat	1100 mg/kg	-
	LD50 Oral	Rat	175 mg/kg	-

Conclusion/Summary : Not available.

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
Product as-supplied	N/A	N/A	N/A	N/A	215.9
3-iodo-2-propynyl butylcarbamate	1056	N/A	N/A	N/A	0.68
1,2-benzisothiazol-3(2H)-one	450	N/A	N/A	N/A	0.21
bronopol	500	1100	N/A	N/A	N/A
2-octyl-2H-isothiazol-3-one	125	311	N/A	N/A	0.27
CMIT/MIT(3:1)	100	50	N/A	N/A	0.05
MBIT	175	1100	N/A	N/A	1.5
2-methyl-2H-isothiazol-3-one	100	300	N/A	N/A	0.05

Irritation/Corrosion

SECTION 11: Toxicological information

Product/ingredient name	Result	Species	Score	Exposure	Observation
3-iodo-2-propynyl butylcarbamate	Eyes - Cornea opacity	Rabbit	-	-	14 days
bronopol	Eyes - Severe irritant	Rabbit	-	-	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
2-octyl-2H-isothiazol-3-one MBIT	Skin - Moderate irritant	Rabbit	-	80 mg	-
	Eyes - Severe irritant	Rabbit	-	100 mg	-
	Skin - Visible necrosis	Rabbit	-	4 hours	14 days

Conclusion/Summary : Not available.

Sensitization

Product/ingredient name	Route of exposure	Species	Result
MBIT	skin skin	Guinea pig Mouse	Sensitizing Sensitizing

Conclusion/Summary : Not available.

Mutagenicity

Product/ingredient name	Test	Experiment	Result
3-iodo-2-propynyl butylcarbamate	-	Experiment: In vitro Subject: Bacteria	Negative

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Product/ingredient name	Maternal toxicity	Fertility	Development toxin	Species	Dose	Exposure
3-iodo-2-propynyl butylcarbamate	Negative	-	Negative	Rabbit - Female	Oral: 20 mg/kg	13 days; 7 days per week

Conclusion/Summary : Not available.

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
3-iodo-2-propynyl butylcarbamate	Negative - Oral	Rabbit - Female	50 mg/kg	-

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

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

Specific target organ toxicity (repeated exposure)

Product/ingredient name	Category	Route of exposure	Target organs
3-iodo-2-propynyl butylcarbamate	Category 1	inhalation	larynx

Aspiration hazard

Not available.

SECTION 11: Toxicological information

Information on the likely routes of exposure : Not available.

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.
- Ingestion : No known significant effects or critical hazards.

Symptoms related to the physical, chemical and toxicological characteristics

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

Delayed and immediate effects and also 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

Product/ingredient name	Result	Species	Dose	Exposure
3-iodo-2-propynyl butylcarbamate	Sub-chronic NOAEL Dermal	Rat	200 mg/kg	90 days
	Sub-acute NOAEL Oral	Rabbit - Male, Female	13 mg/kg	-
	Chronic NOAEL Oral	Rat	20 mg/kg	2 years
	Sub-chronic NOAEL Oral	Rat	35 mg/kg	90 days
	Sub-chronic NOAEL Inhalation Vapor	Rat	1.16 mg/m³	90 days

- Conclusion/Summary : Not available.
- General : No known significant effects or critical hazards.
- Carcinogenicity : No known significant effects or critical hazards.
- Mutagenicity : No known significant effects or critical hazards.
- Reproductive toxicity : No known significant effects or critical hazards.

11.2 Information on other hazards

11.2.1 Endocrine disrupting properties

Not available.

11.2.2 Other information

No additional information.

SECTION 12: Ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not allow to enter drains or watercourses.

The mixture has been assessed following the summation method of the CLP Regulation (EC) No 1272/2008 and is classified for eco-toxicological properties accordingly. See Sections 2 and 3 for details.

Product/ingredient name	Result	Species	Exposure
titanium dioxide	Acute LC50 15.9 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia - Neonate	48 hours
	Acute LC50 >1000 mg/l Fresh water	Fish - Pimephales promelas	96 hours
	Acute EC50 956 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 0.16 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 500 ppb Fresh water	Crustaceans - Hyalella azteca	48 hours
	Acute LC50 2920 ppb Marine water	Crustaceans - Neomysis mercedis - Adult	48 hours
	Acute LC50 40 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 95 ppb Marine water	Fish - Oncorhynchus kisutch - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 100 ppb Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 72 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
3-iodo-2-propynyl butylcarbamate	Acute LC50 67 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 67 µg/l Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 8.4 ppb	Fish - Pimephales promelas	35 days
	Acute EC50 97 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 2.24 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 3.7 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 1.1 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 2 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 10 to 20 mg/l Fresh water	Crustaceans - Ceriodaphnia dubia	48 hours
	Acute LC50 540 ppb Fresh water	Fish - Lepomis macrochirus	96 hours
1,2-benzisothiazol-3(2H)-one	Acute LC50 167 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 0.75 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 1.8 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 1.6 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute EC50 0.02 ppm Fresh water	Algae - Desmodesmus subspicatus	96 hours
	Acute EC50 0.41 ppm Fresh water	Algae - Navicula pelliculosa	96 hours
	Acute EC50 0.22 ppm Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 0.18 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 1.6 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 36 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
bronopol	Acute LC50 11.17 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 41.5 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 20 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 26.4 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Chronic NOEC 1.94 ppm	Fish - Oncorhynchus mykiss	49 days
	Chronic NOEC 1.94 ppm	Fish - Oncorhynchus mykiss	49 days
	Acute EC10 0.000224 mg/l	Algae - Navicula pelliculosa	48 hours
	Acute EC50 0.084 mg/l	Algae - Desmodesmus subspicatus	72 hours
2-octyl-2H-isothiazol-3-one			

SECTION 12: Ecological information

MBIT	Acute EC50 0.00129 mg/l	Algae - Navicula peliculosa	48 hours
	Acute EC50 0.42 mg/l	Daphnia	48 hours
	Acute EC50 107 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 180 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 320 ppb Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 154 ppb Fresh water	Fish - Notemigonus crysoleucas	96 hours
	Acute LC50 47 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 50 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 65.5 ppb Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 140 ppb Fresh water	Fish - Pimephales promelas	96 hours
2-methyl-2H-isothiazol-3-one	Chronic NOEC 8.5 ppb	Fish - Pimephales promelas	35 days
	Acute EC50 0.22 ppm Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
	Acute EC50 0.7 ppm Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 0.48 mg/l	Crustaceans - Americamysis bahia	96 hours
	Acute EC50 0.92 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 1.5 ppm Marine water	Fish - Cyprinodon variegatus - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Acute LC50 0.24 ppm Fresh water	Fish - Oncorhynchus mykiss - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 0.012 mg/l	Algae - Pseudokirchneriella subcapitata	48 hours
	Chronic NOEC 0.42 mg/l	Daphnia - Daphnia magna	21 days
	Chronic NOEC 0.16 mg/l	Fish - Pimephales promelas	32 days
	Acute EC50 0.18 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 0.3 ppm Fresh water	Fish - Lepomis macrochirus	96 hours
	Acute LC50 0.19 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 0.07 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours

Conclusion/Summary : Not available.

12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
3-iodo-2-propynyl butylcarbamate	OECD 310F	25 % - Readily - 28 days	1.03 gO ₂ /g	30 mg/l Activated sludge

Conclusion/Summary : Not available.

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
3-iodo-2-propynyl butylcarbamate	-	-	Readily
MBIT	-	-	Not readily

12.3 Bioaccumulative potential

Product/ingredient name	LogP _{ow}	BCF	Potential
bronopol	0.18	-	low
2-octyl-2H-isothiazol-3-one	2.45	-	low

12.4 Mobility in soil

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

Mobility : Not available.

SECTION 12: Ecological information

12.5 Results of PBT and vPvB assessment

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

12.6 Endocrine disrupting properties

Not available.

12.7 Other adverse effects

No known significant effects or critical hazards.

SECTION 13: Disposal considerations

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

13.1 Waste treatment methods

Product

- Methods of disposal** : The generation of waste should be avoided or minimized 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** : The classification of the product may meet the criteria for a hazardous waste.
- Disposal considerations** : Do not allow to enter drains or watercourses. Dispose of according to all federal, state and local applicable regulations. If this product is mixed with other wastes, the original waste product code may no longer apply and the appropriate code should be assigned. For further information, contact your local waste authority.

European waste catalogue (EWC)

The European Waste Catalogue classification of this product, when disposed of as waste, is:

Waste code	Waste designation
EWC 08 01 12	waste paint and varnish other than those mentioned in 08 01 11

Packaging

- Methods of disposal** : The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
- Disposal considerations** : Using information provided in this safety data sheet, advice should be obtained from the relevant waste authority on the classification of empty containers. Empty containers must be scrapped or reconditioned. Dispose of containers contaminated by the product in accordance with local or national legal provisions.
- 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 spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	ADR/RID	IMDG
14.1 UN number or ID number	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.

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

14.7 Transport in bulk according to IMO instruments : Not applicable.

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 authorization

Annex XIV

None of the components are listed.

Substances of very high concern

None of the components are listed.

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

Other EU regulations

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 : Not available.

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

SECTION 15: Regulatory information

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

Ozone depleting substances (1005/2009/EU)
Not listed.

Prior Informed Consent (PIC) (649/2012/EU)
Not listed.

Persistent Organic Pollutants
Not listed.

Seveso Directive
This product is not controlled under the Seveso Directive.

Biocidal products regulation

Active substances

Ingredient name
3-iodo-2-propynyl butylcarbamate
bronopol
2,2'-dithiobis[N-methylbenzamide]
2-octyl-2H-isothiazol-3-one
CMIT/MIT(3:1)
MBIT
2-methyl-2H-isothiazol-3-one
ethylene oxide

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.

15.2 Chemical Safety : No Chemical Safety Assessment has been carried out.
Assessment

SECTION 16: Other information

Indicates information that has changed from previously issued version.

Abbreviations and : ATE = Acute Toxicity Estimate
acronyms 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

SECTION 16: Other information

PNEC = Predicted No Effect Concentration
 RRN = REACH Registration Number
 SGG = Segregation Group
 vPvB = Very Persistent and Very Bioaccumulative

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

Classification	Justification
Aquatic Chronic 3, H412	Calculation method

Full text of abbreviated H statements

H220	Extremely flammable gas.
H225	Highly flammable liquid and vapor.
H226	Flammable liquid and vapor.
H280	Contains gas under pressure; may explode if heated.
H290	May be corrosive to metals.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H310	Fatal in contact with skin.
H311	Toxic in contact with skin.
H312	Harmful in contact with skin.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H336	May cause drowsiness or dizziness.
H340	May cause genetic defects.
H350	May cause cancer.
H351	Suspected of causing cancer.
H360Fd	May damage fertility. Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.
EUH019	May form explosive peroxides.
EUH066	Repeated exposure may cause skin dryness or cracking.
EUH071	Corrosive to the respiratory tract.

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	AQUATIC HAZARD (ACUTE) - Category 1
Aquatic Chronic 1	AQUATIC HAZARD (LONG-TERM) - Category 1
Aquatic Chronic 2	AQUATIC HAZARD (LONG-TERM) - Category 2
Aquatic Chronic 3	AQUATIC HAZARD (LONG-TERM) - Category 3
Carc. 1B	CARCINOGENICITY - Category 1B
Carc. 2	CARCINOGENICITY - Category 2
Eye Dam. 1	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 1
Eye Irrit. 2	SERIOUS EYE DAMAGE/ EYE IRRITATION - Category 2
Flam. Gas 1A	FLAMMABLE GASES - Category 1A
Flam. Liq. 2	FLAMMABLE LIQUIDS - Category 2
Flam. Liq. 3	FLAMMABLE LIQUIDS - Category 3
Met. Corr. 1	CORROSIVE TO METALS - Category 1

SECTION 16: Other information	
Muta. 1B	GERM CELL MUTAGENICITY - Category 1B
Press. Gas (Comp.)	GASES UNDER PRESSURE - Compressed gas
Repr. 1B	TOXIC TO REPRODUCTION - Category 1B
Skin Corr. 1	SKIN CORROSION/IRRITATION - Category 1
Skin Corr. 1A	SKIN CORROSION/IRRITATION - Category 1A
Skin Corr. 1B	SKIN CORROSION/IRRITATION - Category 1B
Skin Corr. 1C	SKIN CORROSION/IRRITATION - Category 1C
Skin Irrit. 2	SKIN CORROSION/IRRITATION - Category 2
Skin Sens. 1	SKIN SENSITIZATION - Category 1
Skin Sens. 1A	SKIN SENSITIZATION - Category 1A
STOT RE 1	SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
STOT SE 3	SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) - Category 3

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Notice to reader

IMPORTANT NOTE: The information in this data sheet is not intended to be exhaustive and is based on the present state of our knowledge and on current laws: any person using the product for any purpose other than that specifically recommended in the technical data sheet without first obtaining written confirmation from us as to the suitability of the product for the intended purpose does so at his own risk. It is always the responsibility of the user to take all necessary steps to fulfill the demands set out in the local rules and legislation. Always read the Material Data Sheet and the Technical Data Sheet for this product if available. All advice we give or any statement made about the product by us (whether in this data sheet or otherwise) is correct to the best of our knowledge but we have no control over the quality or the condition of the substrate or the many factors affecting the use and application of the product. Therefore, unless we specifically agree in writing otherwise, we do not accept any liability whatsoever for the performance of the product or for any loss or damage arising out of the use of the product. All products supplied and technical advice given are subject to our standard terms and conditions of sale. You should request a copy of this document and review it carefully. The information contained in this data sheet is subject to modification from time to time in the light of experience and our policy of continuous development. It is the user's responsibility to verify that this data sheet is current prior to using the product.

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