sikkens

AkzoNobel

SAFETY DATA SHEET

ALPHA BL TOP FARBE

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

1.1. Product identifier Product name : ALPHA BL TOP FARBE

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

Use of the Product : Water-based paint for exteriors.

1.3. Details of the supplier of the safety data sheet

Akzo Nobel Coatings SpA Via
Pietro Nenni 14,
28053 Castelletto sopra Ticino,
Tel. +39 0331 916611
Internet: www.sikkens.it

E-mail address of the Responsible person of the safety data sheet : service.clienti@akzonobel.com

1.4 Emergency telephone number

Telephone number : Telephone number: +39 0331 916611 (active 24/7) International AkzoNobel emergency number: +31 71 3086944 (active 24/7)

Version : **21.01**

Date of issue previous one : 08/26/2020

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Product definition: Blend

Classification according to EC Regulation No. 1272/2008 [CLP / GHS]
Aquatic Chronic 3, H412

This product is classified as dangerous according to Regulation (EC) 1272/2008 and subsequent amendments.

Ingredients of unknown toxicity : 0%

Ingredients of unknown ecotoxicity : 0%

See section 16 for the full text of the hazard statements mentioned above. For more detailed information on health effects and symptoms, see Section 11.

2.2 Label elements

Warning : No warnings.

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

SECTION 2: Hazards identification

Precautionary advice

General : P102 - Keep out of reach of children.
P101 - If a doctor is consulted, have the product container or label available.

Prevention : P262 - Avoid contact with eyes, skin or clothing.

Reaction : P312 - If you feel unwell, call a POISON CENTER or doctor. Not applicable.

storage :

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

Additional elements of the label : Contains C (M) IT / MIT (3: 1), 1,2-benzisothiazol-3 (2H) -one and 2-octyl-2H-isothiazol-3-one. It can cause an allergic reaction.
Attention! In case of vaporization, dangerous respirable droplets may be formed. Do not breathe vapors or mists.

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

dangerous

Special Packaging Obligations

Containers that must be equipped with a child safety lock : Not applicable.

Tactile warning of danger : Not applicable.

2.3 Other dangers

Other dangers not mentioned in the classification : None known.

SECTION 3: Composition / information on ingredients

3.2 Mixtures :Blend

Product name/ ingredient	Identifiers	%	Regulation (EC) n. 1272/2008 [CLP]	Guy
2-butoxyethanol	REACH #: 01-2119475108-36 EC: 203-905-0 CAS number: 111-76-2 Index: 603-014-00-0	≤3	Acute Tox. 4, H302 Acute Tox. 4, H312 Acute Tox. 4, H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319	[1] [2]
diuron	CE: 206-354-4 CAS number: 330-54-1 Index: 006-015-00-9	≤0.16	Acute Tox. 4, H302 Carc. 2, H351 STOT RE 2, H373 Aquatic Acute 1, H400 (M = 10) Aquatic Chronic 1, H410 (M = 10)	[1]
Octilinone (ISO)	CE: 247-761-7 CAS number: 26530-20-1 Index: 613-112-00-5	<0.05	Acute Tox. 4, H302 Acute Tox. 3, H311 Acute Tox. 3, H331 Skin Corr. 1B, H314 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M = 10) Aquatic Chronic 1, H410 (M = 10) Acute Tox. 3, H301	[1]
zinc pyrithione	CE: 236-671-3 CAS number:	<0.1	Acute Tox. 3, H331	[1]

SECTION 3: Composition / information on ingredients

	13463-41-7		Eye Dam. 1, H318 Aquatic Acute 1, H400 (M = 100) Aquatic Chronic 1, H410 (M = 1)	
1,2-benzisothiazol-3 (2H) -one	CE: 220-120-9 CAS number: 2634-33-5 Index: 613-088-00-6	<0.05	Acute Tox. 4, H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 Skin Sens. 1, H317 Aquatic Acute 1, H400 (M = 1) Acute Tox. 4, H302	[1]
bronopole	CE: 200-143-0 CAS number: 52-51-7 Index: 603-085-00-8	≤0.094	Acute Tox. 4, H312 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 Aquatic Acute 1, H400 (M = 10)	[1]
C (M) IT / MIT (3: 1)	REACH #: 01-2120764691-48 CAS number: 55965-84-9 Index: 613-167-00-5	<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 (M = 100) Aquatic Chronic 1, H410 (M = 100) **See section 16 for the full text of the** **danger** **mentioned above.**	[1]

There are no additional ingredients that, in the current knowledge of the supplier and in the applicable concentrations, are classified as dangerous for health or the environment, meet the PBT or vPvB criteria or are considered as substances with an equivalent degree of problematicity or substances to which an occupational exposure limit has been assigned and should therefore be reported in this section.

Guy

[1] Substance presenting a health or environmental hazard
[2] Substance for which there are workplace exposure limits
[3] Substance meets the criteria for PBT according to Regulation (EC) No. 1907/2006, Annex XIII
[4] Substance meets the criteria for vPvB according to Regulation (EC) No. 1907/2006, Annex XIII
[5] Substance of equivalent concern
[6] Additional information related to company policy

Occupational exposure limits, if known, are listed in section 8.

SECTION 4: first aid measures

4.1 Description of first aid measures General

: If in doubt or if symptoms persist, seek medical attention. Never give anything by mouth to an unconscious person. If the victim is unconscious, have him assume the safety position and call the doctor.

Eye contact : Remove contact lenses, rinse thoroughly with clean, fresh water, holding the eyelids open for at least 10 minutes and seek immediate medical attention.

By inhalation : Bring to fresh air. Keep the person warm and at rest. In case of lack of breathing, irregular breathing or respiratory arrest, give artificial respiration or have oxygen administered by trained personnel.

Skin contact : Remove contaminated clothing and shoes. Wash thoroughly with soap and water or use an effective skin cleanser. DO NOT use solvents or thinners.

Ingestion : If swallowed, seek medical advice immediately and show the container or label. Keep the person warm and at rest. DO NOT induce vomiting.

Protection of rescuers : No action shall be taken involving any personal risk or without suitable training. Performing mouth-to-mouth resuscitation can be dangerous for the person helping.

SECTION 4: first aid measures

4.2 Most important symptoms and effects, both acute and delayed

There are no data available on the mixture itself. The mixture was evaluated following the conventional method of the CLP Regulation (EC) No. 1272/2008 and is consequently classified according to its toxicological properties. For more details, see Sections 2 and 3.

Exposure to solvent vapor concentrations above the pre-established occupational limit can be harmful to health, causing irritation of the mucous membranes and respiratory tract with adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, dizziness and wobbling, fatigue, muscle weakness, drowsiness and in extreme cases loss of consciousness.
Solvents may cause some of the aforementioned effects via skin absorption. Repeated or prolonged contact with the mixture can result in the removal of natural skin fat, resulting in non-allergic contact dermatitis and absorption through the skin.
Contact of the liquid with the eyes can cause irritation and reversible damage.
Ingestion can cause nausea, diarrhea and vomiting.
The delayed and immediate effects, as well as the chronic effects of the components deriving from short and long-term exposure, by the oral and dermal route, by inhalation and by contact with the eyes, are taken into account, where they are known.

Contains 2-octyl-2H-isothiazol-3-one, 1,2-benzisothiazol-3 (2H) -one, C (M) IT / MIT (3: 1). It can cause an allergic reaction.

4.3 Indication of any immediate medical attention and special treatment needed Notes to physician

: Treat symptomatically. If large quantities are ingested or inhaled, contact a poison control center immediately.

Specific treatments : No specific treatment.

See Section 11 for Toxicological Information (Section 11)

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media :Recommended: alcohol resistant foam,CO_2,powders, water spray.

Unsuitable extinguishing media :Do not use full jet water.

5.2 Special hazards arising from the substance or mixture

Hazards arising from the substance or mixture : Any fires develop thick black smoke. Exposure to decomposition products can be hazardous to health.

Hazardous Combustion Products : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, nitrogen oxides.

5.3 Recommendations for firefighters

Special actions of protection for firefighters : Cool closed containers exposed to flames with water. Do not channel the products of a fire into drains or water courses.

Special protective equipment for personnel fire prevention : The use of a self-contained breathing apparatus may be required.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

For those who do not intervene directly : Remove any sources of ignition and ventilate the room. Avoid breathing vapors or mists. Consult the protective measures listed in sections 7 and 8.

For those who intervene directly : 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 service operators".

6.2 Environmental precautions: Do not dispose of the product in the sewer system and water courses. In case of contamination by the product of lakes, rivers or waste water, inform the competent authorities in accordance with current legislation.

6.3 Methods and materials for: containment and quenching and tempering Contain and collect any spills with non-combustible absorbent material, such as sand, earth, vermiculite, diatomite and dispose of the product in a container in accordance with current legislation (see Section 13). Clean, preferably with the use of a detergent. Avoid using solvents.

6.4 Reference to other sections : For emergency telephone numbers, see Section 1.
See Section 8 for information on appropriate personal protective equipment.

For more information on waste treatment, refer to Section 13.

SECTION 7: handling and storage

The information contained in this section contains general information and warnings. Refer to the list of Identified Uses in Section 1 for specific information available provided in the exposure scenario (s).

7.1 Precautions for safe handling :Prevent the development of flammable or explosive vapor concentrations in the air o that exceed the occupational exposure limits.
Also, use the product only in rooms from which all naked flame lamps and other sources of ignition have been removed. Protect electrical equipment according to appropriate standards.
The mixture can become electrostatically charged: always use ground connections when transferring it from one container to another.
Operators must wear antistatic shoes and clothing, while floors must be conductive.
Keep away from sources of heat, sparks and flames. Do not use any tools that cause sparks.
Avoid contact with eyes and skin. Avoid inhalation of dust, particulates, aerosols or mists resulting from the application of this mixture. Avoid inhalation of dust deriving from sandblasting.
It is forbidden to eat, drink and smoke in areas where the material is handled, stored or treated.
Put on appropriate personal protective equipment (see Section 8).
Never empty the product by subjecting it to pressure. The container is not pressurized.
Always keep the material in the original container.
Observe the provisions of the laws relating to health and safety in the workplace.

Do not dispose of the product in the sewer system and water courses. **Information on fire and explosion protection**
Vapors are heavier than air and can spread over floors. Vapors can form explosive mixtures with air.

7.2 Conditions for safe storage, including any incompatibilities

SECTION 7: handling and storage

Store according to local regulations.

Notes on shared storage

Keep away from: oxidizing agents, strong alkalis, strong acids. **Additional information on storage conditions**

Observe the precautions on the label. Store in a dry, cool and well-ventilated area. Keep away from heat and direct sunlight. Keep away from sources of ignition. Smoking prohibited. Access prohibited to outsiders. Open containers must be carefully resealed and kept straight to prevent accidental product spillage.

7.3 Specific end uses

Warnings : Unavailable.

Specific guidelines for the industrial sector : Unavailable.

SECTION 8: Exposure controls / personal protection

The information contained in this section contains general information and warnings. The information provided refers to the typical uses envisaged for the product. Additional measures may be needed for bulk processing or other uses that could significantly increase worker exposure or emissions to the environment.

8.1 Control parameters

Occupational exposure limits

Name of the product / ingredient	Exposure limit values
2-butoxyethanol	**Ministry of Labor and Social Policies (Italy, 10/2013). Absorbed through the skin.** 8 hours: 20 ppm 8 hours. 8 hours: 98 mg / m^3 8 hours. Short Term: 50ppm 15 minutes. Short Term: 246 mg / m^3 15 minutes.

Monitoring Procedures: Recommended

If this product contains ingredients with exposure limits, personal, workplace atmosphere and biological monitoring may be required to determine the effectiveness of ventilation or other control measures and / or the need to use protective equipment respiratory. Refer to the monitoring standards, such as the following: European standard EN 689 (Atmosphere in the workplace - Guide to the assessment of exposure by inhalation to chemical compounds for the purpose of comparison with limit values and measurement strategy) Standard European EN 14042 (Atmospheres in the workplace - Guide to the application and use of procedures for the assessment of exposure to chemical and biological agents) European standard EN 482 (Atmospheres in

DNEL / DMEL

No DNEL / DMEL available.

PNEC

No PNECs available.

8.2 Exposure controls Appropriate

engineering controls :Provide adequate ventilation. When reasonably possible, this can be achieved through replacement ventilation and good general aspiration. If it is impossible to keep the concentrations of solvent vapors and powders below the occupational exposure limit, wear suitable means of respiratory protection.

Individual protection measures

SECTION 8: Exposure controls / personal protection

Hygiene measures : Before eating, smoking and using the lavatory and at the end of the working period, wash your hands, arms and face thoroughly after handling chemicals. Appropriate techniques should be used to remove potentially contaminated clothing. Wash the contaminated garments before reusing them. Make sure that the eyewash stations and emergency showers are close to the place of use.

Eye / face protection : Use protective goggles to prevent accidental penetration of liquids into the eyes.

Skin protection

Hand protection

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

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

Device of body protection : Personnel must wear antistatic clothing made of natural fiber or synthetic fiber resistant to high temperatures.

Other devices of skin protection : Choose appropriate footwear and any additional skin protection measures based on the activity being carried out and the inherent risks. Such choices must be approved by a specialist before handling this product.

Respiratory protection : If personnel are exposed to concentrations above the exposure limit, use appropriate, certified respirators.

Treatments such as sanding, sandblasting or flame removal, etc., of the paint layers, can generate dangerous dust and / or fumes. Wet sanding should be used wherever possible. Respiratory protection in case of dust or spray mist formation. (particulate filter EN143 type P2) Respiratory protection in case of vapor formation. (half mask with A2-P2 combined filter up to concentrations of 0.5% by volume.)

Environmental exposure controls : Do not dispose of the product in the sewer system and water courses.

SECTION 9: physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance

Physical state	: Liquid.
Color	: Miscellaneous: See
Smell	: label. Unavailable.
Odor threshold	: Unavailable.
pH	: Unavailable.
Melting point / freezing point	: Unavailable.
Initial boiling point and boiling range	: 100 ° C
Flash point	: Not applicable.
Evaporation rate	: Unavailable.
Upper / lower flammability or explosive limits	: Unavailable.
Vapor pressure	: Unavailable.
Vapor density	: Unavailable.
Relative density	: 1.321

SECTION 9: physical and chemical properties

Solubility (the solubilities) : Easily soluble in the following materials: cold water.

Partition coefficient: noctanol / water : Unavailable.

Temperature of self-ignition : Unavailable.

Temperature of decomposition : Unavailable.

Viscosity : Kinematic (room temperature): 15.14 cm_2/ s Not

Explosive properties : available.

Oxidizing properties : Unavailable.

9.2. Other information

Solubility in water : Unavailable.

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 under the recommended handling and storage conditions (see section 7).

10.3 Possibility of reactions: Under normal conditions of storage and use, hazardous reactions will not occur. **dangerous**

10.4 Conditions to avoid : If exposed to high temperatures it can produce dangerous decomposition products.

10.5 Incompatible materials: To avoid strong exothermic reactions, keep away from the following materials: oxidizing agents, strong alkalis, strong acids.

10.6 Products of dangerous decomposition : Decomposition products may include the following materials: carbon monoxide, carbon dioxide, smoke, nitrogen oxides.

SECTION 11: toxicological information

11.1 Information on toxicological effects

There are no data available on the mixture itself. The mixture was evaluated following the conventional method of the CLP Regulation (EC) No. 1272/2008 and is consequently classified according to its toxicological properties. For more details, see Sections 2 and 3.

Exposure to solvent vapor concentrations above the pre-established occupational limit can be harmful to health, causing irritation of the mucous membranes and respiratory tract with adverse effects on the kidneys, liver and central nervous system. Symptoms include headache, dizziness and wobbling, fatigue, muscle weakness, drowsiness and in extreme cases loss of consciousness.
Solvents may cause some of the aforementioned effects via skin absorption. Repeated or prolonged contact with the mixture can result in the removal of natural skin fat, resulting in non-allergic contact dermatitis and absorption through the skin.
Contact of the liquid with the eyes can cause irritation and reversible damage.
Ingestion can cause nausea, diarrhea and vomiting.
The delayed and immediate effects, as well as the chronic effects of the components deriving from short and long-term exposure, by the oral and dermal route, by inhalation and by contact with the eyes, are taken into account, where they are known.

Contains 2-octyl-2H-isothiazol-3-one, 1,2-benzisothiazol-3 (2H) -one, C (M) IT / MIT (3: 1). It can cause an allergic reaction.

Acute toxicity

Conclusion / Summary :Unavailable.

Acute toxicity estimates

SECTION 11: toxicological information

Street	Acute Toxicity Assessment
Orally By the cutaneous route Inhalation (vapors)	26193.3 mg / kg 57625.3 mg / kg 576.3 mg / l

Irritation / Corrosion

Product name/ ingredient	Result	Species	Score	Exposure	Observation
Octilinone (ISO)	Eyes - Strongly irritating	Rabbit	-	100 milligrams	-
1,2-benzisothiazol-3 (2H) -one	Skin - Mild irritant	Human	-	48 hours 5 Percent	-
bronopole	Skin - Moderately irritating Skin - Mild irritant	Human Rabbit	- -	10 milligrams 24 hours 500 milligrams	- -
C (M) IT / MIT (3: 1)	Skin - Moderately irritating Skin - Severe irritating	Rabbit Human	- -	80 milligrams 0.01 Percent	- -

Conclusion / Summary : Unavailable.

Awareness raising

Conclusion / Summary : Unavailable.

Mutagenicity

Conclusion / Summary : Unavailable.

Carcinogenicity

Conclusion / Summary : Unavailable.

Reproductive toxicity

Conclusion / Summary : Unavailable.

Teratogenicity

Conclusion / Summary : Unavailable.

Specific target organ toxicity (STOT) - single exposure

Name of the product / ingredient	Category	Via of exposure	Target organs
bronopole	Category 3	Not applicable.	Irritation of the pathways respiratory

Specific target organ toxicity (STOT) - repeated exposure

Name of the product / ingredient	Category	Via of exposure	Target organs
diuron	Category 2	Not determined	Not determined

Aspiration hazard Unavailable.

Other information :Unavailable.

SECTION 12: ecological information

12.1 Toxicity

There are no data available on the mixture itself.
Do not dispose of the product in the sewer system and water courses.

The mixture was evaluated following the summation method of the CLP Regulation (EC) No. 1272/2008 and is consequently classified according to its ecotoxicological properties. See Sections 2 and 3 for more details.

SECTION 12: ecological information

Product name/ ingredient	Result	Species	Exposure
2-butoxyethanol	Acute EC50> 1000 mg / l Fresh water	Daphnia - Daphnia magna Algae	48 hours
diuron	Acute EC50 0.0023 mg / l Fresh water	- Chlorella pyrenoidosa Algae -	96 hours
	Acute EC50 2.4 ppb Fresh water	Pseudokirchneriella subcapitata	96 hours
	Acute EC50 0.005 mg / l Fresh water	Aquatic plants - Lemna sp.	96 hours
	Acute EC50 7.6 µg / l Fresh water	Aquatic plants - Lemna aequinoctialis	72 hours
	Acute EC50 8.6 mg / l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute EC50 8.6 mg / l Fresh water	Daphnia - Daphnia magna - Newborn	48 hours
	Acute EC50 8.4 ppm Fresh water	Daphnia - Daphnia magna	48 hours
	Acute IC50 2.41 µg / l Sea water	Aquatic plants - Halodule uninervis	72 hours
	Acute IC50 5.89 µg / l Sea water	Aquatic plants - Halodule uninervis	72 hours
	Acute IC50 2.47 µg / l Sea water	Aquatic plants - Zostera muelleri	72 hours
	Acute LC50 3044 µg / l Sea water	Crustaceans - Palaemon serratus - Zoea	48 hours
	Acute LC50 1.95 ppm Fresh water	Fish - Oncorhynchus mykiss	96 hours
	Acute LC50 3100 µg / l Fresh water	Fish - Morone saxatilis Fish -	96 hours
	Acute LC50 2900 µg / l Fresh water	Cyprinus carpio - Fry	96 hours
	Chronic EC10 0.11 µg / l Fresh water	Algae - Fragilaria capucina - Exponential growth phase Algae	96 hours
	Chronic EC10 0.76 µg / l Fresh water	- Fragilaria capucina ssp. rumpens	96 hours
	Chronic IC10 0.47 µg / l Sea water	Aquatic plants - Halodule uninervis	72 hours
	Chronic IC10 0.7 µg / l Sea water	Aquatic plants - Halodule uninervis	72 hours
	Chronic IC10 0.49 µg / l Sea water	Aquatic plants - Zostera muelleri	72 hours
	Chronic NOEC 0.283 µg / l Sea water	Algae - Nitzschia pungens	96 hours
	Chronic NOEC 0.34 µg / l Sea water	Aquatic plants - Halodule uninervis	72 hours
	Chronic NOEC 0.34 µg / l Sea water	Aquatic plants - Zostera muelleri	72 hours
	Chronic NOEC 26.4 ppb	Fish - Pimephales promelas Fish	60 days
	Chronic NOEC 26.4 ppb	- Pimephales promelas Fish -	60 days
	Chronic NOEC 26.4 ppb	Pimephales promelas Fish -	60 days
	Chronic NOEC 33.4 µg / l Fresh water	Pimephales promelas - Embryo	63 days
Octilinone (ISO)	Acute EC50 107 ppb Fresh water	Daphnia - Daphnia magna Fish -	48 hours
	Acute LC50 47 ppb Fresh water	Oncorhynchus mykiss Daphnia -	96 hours
	Chronic NOEC 74 ppb Fresh water	Daphnia magna Fish -	21 days
	Chronic NOEC 8.5 ppb	Pimephales promelas Algae -	35 days
zinc pyrithione	Acute EC50 0.51 µg / l Sea water	Thalassiosira pseudonana	96 hours
	Acute EC50 8.25 ppb Fresh water Acute	Daphnia - Daphnia magna Fish	48 hours
	LC50 2.68 ppb Fresh water Chronic	- Pimephales promelas Algae -	96 hours
	EC10 0.36 µg / l Sea water	Thalassiosira pseudonana	96 hours
	Chronic NOEC 2.7 ppb Fresh water	Daphnia - Daphnia magna	21 days
1,2-benzisothiazol-3 (2H) -one	Acute EC50 1.5 mg / l	Dafnia - Daphnia magna	48 hours
	Acute EC50 0.4 mg / l	Dafnia - Pseudomonas putia	16 hours
	Acute IC50 0.067 mg / l	Algae - Pseudokirchneriella subcapitata	72 hours
	Acute LC50 1.3 mg / l	Fish - Ochorhyncus mykiss	96 hours
bronopole	Acute EC50 0.02 ppm Fresh water	Algae - Scenedesmus	96 hours

SECTION 12: ecological information

	Acute EC50 1.6 ppm Fresh water Acute LC50 11.17 ppm Fresh water Chronic NOEC 1.94 ppm	subspicatus Daphnia - Daphnia magna Fish - Lepomis macrochirus Fish - Oncorhynchus mykiss	 48 hours 96 hours 49 days

Conclusion / Summary :Unavailable.

12.2 Persistence and degradability

Conclusion / Summary :Unavailable.

12.3 Bioaccumulation potential

Product name/ ingredient	$LogP_{ow}$	BCF	Potential
2-butoxyethanol	0.81	-	low
diuron	2.84	5.2	low
Octilinone (ISO)	2.45	-	low
zinc pyrithione	0.9	11	low
bronopole	0.18	-	low

12.4 Mobility in soil

Soil / water partition coefficient (K_{OC}) : Unavailable.

Mobility : Unavailable.

12.5 Results of PBT and vPvB PBT

assessment : Not applicable.

vPvB : Not applicable.

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

SECTION 13: Disposal considerations

The information contained in this section contains general information and warnings. Refer to the list of Identified Uses in Section 1 for specific information available 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 must always be carried out in accordance with the legal guidelines on environmental protection and waste disposal and the requirements of each relevant local authority. Dispose of surplus and non-recyclable products through an authorized waste disposal company. Untreated waste should not be disposed of in the sewer system unless it fully complies with the requirements of each institution and the legislation.

Hazardous waste : The classification of the product could meet the criteria for hazardous waste.

Considerations on the disposal : Do not dispose of the product in the sewer system and water courses.
Dispose of in accordance with applicable regional, state and local laws.
If this product is mixed with other wastes, the original refused code can no longer be applied and an appropriate code will need to be assigned.
For more information, contact your waste disposal authority.

Packing

Methods of disposal : The generation of waste should be avoided or minimized wherever possible. Waste packaging must be recycled. Incineration or landfilling should only be considered when recycling is not practicable.

SECTION 13: Disposal considerations

Considerations on the disposal : Using the information provided in this safety data sheet, contact the appropriate waste disposal authority for guidance on the classification of empty containers.
Empty containers must be discarded or reprocessed.
Dispose of containers contaminated by the product in accordance with local or national regulatory requirements.

Type of packaging	European Waste Catalog	
CEPE Paint Guidelines	15 01 10 *	packaging containing residues of dangerous substances or contaminated by such substances

Special precautions : Do not dispose of the product and the container except with due precautions. Care should be taken when handling emptied containers that have not been cleaned or rinsed. Empty containers or liners can retain product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

The information pertaining to IATA and ADN is considered irrelevant as the material is not packaged in the correct approved packaging required by these modes of transport.

	ADR	IMDG
14.1 UN number	Not regulated.	Not regulated.
14.2 Name of shipment of the UN	Not applicable.	Not applicable.
14.3 Classes of connected danger to transport **Class** **Secondary class**	Not applicable. -	Not applicable. -
14.4 Group of packaging	Not applicable.	Not applicable.
14.5 Dangers for the environment **Marine pollutant** **Substances marine pollutants**	No.	No. Unavailable.
14.6 Precautions special for users	**Transport within the user's property:** always carry out transport with closed containers, stored vertically and secured to the means of transport. Verify the suitability of the persons carrying out the transport to intervene effectively in the event of an accident and / or spill.	
Number of identification of danger or number Kemler	Unavailable.	Not applicable.

The information pertaining to IATA and ADN is considered irrelevant as the material is not packaged in the correct approved packaging required by these modes of transport.

Schemes of emergency ("EmS")		

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code :Not applicable.

Information additional	-	-

SECTION 15: Regulatory information

15.1 Health, safety and environmental legislation and regulations specific to the substance or mixture

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

Annex XIV - List of substances subject to authorization

Annex XIV

None of the components are listed.

Substances of Extremely Concern None of the components are listed.

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

Other EU regulations

VOC for ready-to-use mixtures : Not applicable.

Substances harmful to the ozone layer (1005/2009 / EU)

Not in the list.

Prior Inform Consent (PIC - Prior Inform Consent) (649/2012 / UE) Not in the list.

Seveso Directive

This product is not controlled under the Seveso Directive.

National standards

Legislative Decree 152/06 :Not classified.

International Regulations

Chemical Weapons Convention List - Tables I, II and III Chemical Compounds

Not in the list.

Montreal Protocol (Annexes A, B, C, E) Not in the list.

Stockholm Convention on Persistent Organic Pollutants Not in the list.

Rotterdam Convention on Prior Informed Consent (PIC) Not in the list.

SECTION 15: Regulatory information

UNECE Protocol to the Aarhus Convention on Persistent Organic Pollutants and Heavy Metals Not in the list.

15.2 Evaluation of chemical safety :No chemical safety assessment has been carried out.

SECTION 16: other information

CEPE code :1

Indicates information that has changed from the previous edition.

Abbreviations and acronyms : ATE = Estimation of Acute Toxicity
CLP = Classification, Labeling and Packaging [Regulation (EC) No. 1272/2008] DMEL = Derived level with minimal effects
DNEL = Derived No Effect Level
EUH indication = CLP specific risk provisions PBT = Persistent, Bioaccumulative, Toxic
PNEC = Predicted No Effect Concentration RRN = REACH Registration Number
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 hazard statements

H301	Toxic if ingested.
H302	Harmful if swallowed.
H310	Fatal in contact with the skin.
H311	Toxic in contact with the skin.
H312	Harmful in contact with skin.
H314	It causes serious skin burns and serious eye injuries.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction. Causes
H318	serious eye damage.
H319	Causes serious eye irritation. Fatal
H330	if inhaled.
H331	Toxic if inhaled.
H332	Harmful if inhaled.
H335	It can irritate the respiratory tract.
H351	Suspected of causing cancer.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic organisms.
H410	Very toxic to aquatic life with long lasting effects. Harmful to aquatic
H412	life with long lasting effects.

Full text of classifications [CLP / GHS]

Acute Tox. 2, H310	ACUTE TOXICITY (skin) - Category 2 ACUTE TOXICITY
Acute Tox. 2, H330	(inhalation) - Category 2 ACUTE TOXICITY (oral) - Category 3
Acute Tox. 3, H301	ACUTE TOXICITY (skin) - Category 3 ACUTE TOXICITY
Acute Tox. 3, H311	(inhalation) - Category 3 ACUTE TOXICITY (oral) - Category 4
Acute Tox. 3, H331	ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY
Acute Tox. 4, H302	(inhalation) - Category 4 SHORT-TERM (ACUTE) HAZARD TO THE
Acute Tox. 4, H312	AQUATIC ENVIRONMENT - Category 1
Acute Tox. 4, H332	
Aquatic Acute 1, H400	
Aquatic Chronic 1, H410	LONG-TERM (CHRONIC) HAZARD TO THE AQUATIC ENVIRONMENT - Category 1
Aquatic Chronic 3, H412	LONG-TERM (CHRONIC) HAZARD TO THE AQUATIC ENVIRONMENT - Category 3

SECTION 16: other information

Carc. 2, H351 Eye Dam. 1, H318 Eye Irrit. 2, H319 Skin Corr. 1B, H314 Skin Corr. 1C, H314 Skin Irrit. 2, H315 Skin Sens. 1, H317 Skin Sens. 1A, H317 STOT RE 2, H373 STOT SE 3, H335	CARCINOGENICITY - Category 2 SERIOUS EYE DAMAGE / EYE IRRITATION - Category 1 SERIOUS EYE DAMAGE / EYE IRRITATION - Category 2 SKIN CORROSION / IRRITATION - Category 1B SKIN CORROSION / IRRITATION - Category 1C SKIN CORROSION / IRRITATION - Category 2 SKIN SENSITIZATION - Category 1 SKIN SENSITIZATION - Category 1A SPECIFIC TOXICITY TO TARGET ORGANS (REPEATED EXPOSURE) - Category 2 SPECIFIC TOXICITY TO TARGET ORGANS (SINGLE EXPOSURE) (Irritation of the respiratory tract) - Category 3

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