

MICRO ART AD 45

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

- 1.1 Product identifier:** MICRO ART AD 45
- Other means of identification:**
Not relevant
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Rubber Modifier / Additive
Uses advised against: All uses not specified in this section or in section 7.3
- 1.3 Details of the supplier of the safety data sheet:**
SECILTEK SA
Apartado 2
2406-909 Maceira LRA Leiria - Portugal
Phone: +351244770220 - Fax: +351244777997
comercial.seciltek@secil.pt
<https://www.secil.pt>
- 1.4 Emergency telephone number:**

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):
Classification of this product has been carried out in accordance with GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).
Acute Tox. 2: Acute inhalation toxicity, Category 2, H330
Acute Tox. 3: Acute toxicity, Category 3, H301+H311
Aquatic Acute 1: Hazardous to the aquatic environment, acute hazard, Category 1, H400
Aquatic Chronic 1: Hazardous to the aquatic environment, long-term hazard, Category 1, H410
Carc. 1B: Carcinogenicity, Category 1B, H350
Eye Dam. 1: Serious eye damage, Category 1, H318
Muta. 2: Germ cell mutagenicity, Category 2, H341
Skin Corr. 1C: Skin corrosion, Category 1C, H314
Skin Sens. 1A: Sensitisation, skin, Category 1A, H317
- 2.2 Label elements:**
GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):
Danger
- 
- Hazard statements:**
Acute Tox. 2: H330 - Fatal if inhaled.
Acute Tox. 3: H301+H311 - Toxic if swallowed or in contact with skin.
Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
Carc. 1B: H350 - May cause cancer.
Muta. 2: H341 - Suspected of causing genetic defects.
Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.
Skin Sens. 1A: H317 - May cause an allergic skin reaction.
- Precautionary statements:**
P101: If medical advice is needed, have product container or label at hand.
P102: Keep out of reach of children.
P280: Wear protective gloves/face protection/protective clothing/respiratory protection/protective footwear.
P501: Dispose of the contents and/or its container using the separate collection system in your municipality.
- Supplementary information:**
Contains Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).
- Substances that contribute to the classification**
2-butoxyethanol; 1,2-benzisothiazol-3(2H)-one; Formaldehyde
- Additional Labelling:**

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SECTION 2: HAZARDS IDENTIFICATION (continued)

Restricted to professional users
For use in industrial installations or professional treatment only

2.3 Other hazards:

Product does not meet PBT/vPvB criteria

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance:

Non-applicable

3.2 Mixture:

Chemical description: Mixture of substances

Components:

In accordance with Annex II of The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020, the product contains:

Identification	Chemical name/Classification	Concentration
CAS: 111-76-2	2-butoxyethanol Acute Tox. 4: H302+H332; Eye Irrit. 2: H319; Skin Irrit. 2: H315 - Warning	1 - <2,5 %
CAS: 2634-33-5	1,2-benzisothiazol-3(2H)-one Acute Tox. 4: H302; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	1 - <2,5 %
CAS: 330-54-1	diuron (ISO) Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Carc. 2: H351; STOT RE 2: H373 - Warning	1 - <2,5 %
CAS: 50-00-0	Formaldehyde Acute Tox. 3: H301+H311+H331; Carc. 1B: H350; Muta. 2: H341; Skin Corr. 1B: H314; Skin Sens. 1: H317 - Danger	1 - <2,5 %
CAS: 55965-84-9	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) Acute Tox. 2: H310+H330; Acute Tox. 3: H301; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1C: H314; Skin Sens. 1A: H317; EUH071 - Danger	<1 %

To obtain more information on the hazards of the substances consult sections 11, 12 and 16.

Acute toxicity estimate for the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or as determined in accordance with Annex I to that Regulation:

Identification	Acute toxicity		Genus
2-butoxyethanol CAS: 111-76-2	LD50 oral	1200 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	3 mg/L	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	LD50 oral	64 mg/kg	Rat
	LD50 dermal	87.12 mg/kg	Rabbit
	LC50 inhalation	Not relevant	
Formaldehyde CAS: 50-00-0	LD50 oral	100 mg/kg	
	LD50 dermal	300 mg/kg	
	LC50 inhalation	3 mg/L (ATEi)	
diuron (ISO) CAS: 330-54-1	LD50 oral	1017 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5	LD50 oral	500 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

Request medical assistance immediately, showing the SDS of this product.

By inhalation:

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SECTION 4: FIRST AID MEASURES (continued)

Remove the person affected from the area of exposure, provide with fresh air and keep at rest. In serious cases such as cardiorespiratory failure, artificial resuscitation techniques will be necessary (mouth to mouth resuscitation, cardiac massage, oxygen supply, etc.) requiring immediate medical assistance.

By skin contact:

Remove contaminated clothing and footwear, rinse skin or shower the person affected if appropriate with plenty of cold water and neutral soap. In serious cases see a doctor. If the product causes burns or freezing, clothing should not be removed as this could worsen the injury caused if it is stuck to the skin. If blisters form on the skin, these should never be burst as this will increase the risk of infection.

By eye contact:

Rinse eyes thoroughly with lukewarm water for at least 15 minutes. Do not allow the person affected to rub or close their eyes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case this could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS of the product.

By ingestion/aspiration:

Request medical assistance immediately, showing the SDS of this product. Induce vomiting (ONLY IF PERSON IS CONSCIOUS!) and then ingest large quantities of liquid to dilute the toxin. Keep the person affected at rest.

4.2 Most important symptoms and effects, both acute and delayed:

Acute and delayed effects are indicated in sections 2 and 11.

4.3 Indication of any immediate medical attention and special treatment needed:

Not relevant

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media:

Suitable extinguishing media:

Product is non-flammable under normal conditions of storage, handling and use. In the case of combustion as a result of improper handling, storage or use preferably use polyvalent powder extinguishers (ABC powder), in accordance with the Regulation on fire protection systems.

Unsuitable extinguishing media:

Non-applicable

5.2 Special hazards arising from the substance or mixture:

As a result of combustion or thermal decomposition reactive sub-products are created that can become highly toxic and, consequently, can present a serious health risk.

5.3 Advice for firefighters:

Depending on the magnitude of the fire it may be necessary to use full protective clothing and self-contained breathing apparatus (SCBA). Minimum emergency facilities and equipment should be available (fire blankets, portable first aid kit, ...).

Additional provisions:

Act in accordance with the Internal Emergency Plan and the Information Sheets on actions to take after an accident or other emergencies. Eliminate all sources of ignition. In case of fire, cool the storage containers and tanks for products susceptible to combustion, explosion or BLEVE as a result of high temperatures. Avoid spillage of the products used to extinguish the fire into an aqueous medium.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel:

Isolate leaks provided that there is no additional risk for the people performing this task. Personal protection equipment must be used against potential contact with the spilt product (See section 8). Evacuate the area and keep out those who do not have protection.

For emergency responders:

Wear protective equipment. Keep unprotected persons away. See section 8.

6.2 Environmental precautions:

Avoid at all cost any type of spillage into an aqueous medium. Contain the product absorbed appropriately in hermetically sealed containers. Notify the relevant authority in case of exposure to the general public or the environment.

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SECTION 6: ACCIDENTAL RELEASE MEASURES (continued)

6.3 Methods and material for containment and cleaning up:

It is recommended:

Absorb the spillage using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. For any concern related to disposal consult section 13.

6.4 Reference to other sections:

See sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks. Keep containers hermetically sealed. Control spills and residues, destroying them with safe methods (section 6). Avoid leakages from the container. Maintain order and cleanliness where dangerous products are used.

B.- Technical recommendations for the prevention of fires and explosions

Product is non-flammable under normal conditions of storage, handling and use. It is recommended to transfer at slow speeds to avoid the generation of electrostatic charges that can affect flammable products. Consult section 10 for information on conditions and materials that should be avoided.

C.- Technical recommendations on general occupational hygiene

Do not eat or drink during the process, washing hands afterwards with suitable cleaning products.

D.- Technical recommendations to prevent environmental risks

Due to the danger of this product for the environment it is recommended to use it within an area containing contamination control barriers in case of spillage, as well as having absorbent material in close proximity.

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.:	5 °C
Maximum Temp.:	30 °C
Maximum time:	12 Months

B.- General conditions for storage

Avoid sources of heat, radiation, static electricity and contact with food. For additional information see subsection 10.5

7.3 Specific end use(s):

Except for the instructions already specified it is not necessary to provide any special recommendation regarding the uses of this product.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters:

Substances whose occupational exposure limits have to be monitored in the workplace:

EH40/2005 Workplace exposure limits, fourth edition, published 2020:

Identification	Occupational exposure limits		
2-butoxyethanol ⁽¹⁾ CAS: 111-76-2	WEL (8h)	25 ppm	123 mg/m ³
	WEL (15 min)	50 ppm	246 mg/m ³
diuron (ISO) CAS: 330-54-1	WEL (8h)		10 mg/m ³
	WEL (15 min)		
Formaldehyde ⁽²⁾ CAS: 50-00-0	WEL (8h)	2 ppm	2.5 mg/m ³
	WEL (15 min)	2 ppm	2.5 mg/m ³

⁽¹⁾ Skin

⁽²⁾ Dermal sensitisation

Biological limit values:

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

BIOLOGICAL MONITORING GUIDANCE VALUES (BMGVs) - EH40/2005

Identification	NULL	NULL	NULL
2-butoxyethanol CAS: 111-76-2	280 mg/g (NULL)	Butoxyacetic acid in urine	Post shift

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	89 mg/kg	Not relevant	125 mg/kg	Not relevant
	Inhalation	1091 mg/m ³	246 mg/m ³	98 mg/m ³	Not relevant
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0.966 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	6.81 mg/m ³	Not relevant
diuron (ISO) CAS: 330-54-1 EC: 206-354-4	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	5.79 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0.17 mg/m ³	Not relevant
Formaldehyde CAS: 50-00-0 EC: 200-001-8	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	240 mg/kg	Not relevant
	Inhalation	Not relevant	0.75 mg/m ³	9 mg/m ³	0.375 mg/m ³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	Oral	Not relevant	Not relevant	6.3 mg/kg	Not relevant
	Dermal	89 mg/kg	Not relevant	75 mg/kg	Not relevant
	Inhalation	426 mg/m ³	147 mg/m ³	59 mg/m ³	Not relevant
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0.345 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	1.2 mg/m ³	Not relevant
Formaldehyde CAS: 50-00-0 EC: 200-001-8	Oral	Not relevant	Not relevant	4.1 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	102 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	3.2 mg/m ³	0.1 mg/m ³

PNEC:

Identification					
2-butoxyethanol CAS: 111-76-2 EC: 203-905-0	STP	463 mg/L	Fresh water	8.8 mg/L	
	Soil	2.33 mg/kg	Marine water	0.88 mg/L	
	Intermittent	26.4 mg/L	Sediment (Fresh water)	34.6 mg/kg	
	Oral	0.02 g/kg	Sediment (Marine water)	3.46 mg/kg	
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	STP	1.03 mg/L	Fresh water	0.00403 mg/L	
	Soil	3 mg/kg	Marine water	0.000403 mg/L	
	Intermittent	0.0011 mg/L	Sediment (Fresh water)	0.0499 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0.00499 mg/kg	
diuron (ISO) CAS: 330-54-1 EC: 206-354-4	STP	58 mg/L	Fresh water	0.00032 mg/L	
	Soil	0.012 mg/kg	Marine water	0.000032 mg/L	
	Intermittent	0.00022 mg/L	Sediment (Fresh water)	0.052 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	0.005 mg/kg	
Formaldehyde CAS: 50-00-0 EC: 200-001-8	STP	0.19 mg/L	Fresh water	0.44 mg/L	
	Soil	0.2 mg/kg	Marine water	0.44 mg/L	
	Intermittent	4.44 mg/L	Sediment (Fresh water)	2.3 mg/kg	
	Oral	Not relevant	Sediment (Marine water)	2.3 mg/kg	

8.2 Exposure controls:

A.- Individual protection measures, such as personal protective equipment

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

In accordance with the order of importance to control professional exposure it is recommended to use localized extraction in the work area as a collective protection measure to avoid exceeding the occupational exposure limits. In case of using personal protective equipment it should have <<UKCA marking>> or <<CE marking>>. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For additional information see subsection 7.1. All information contained herein is a recommendation which needs some specification from the labour risk prevention services as it is not known whether the company has additional measures at its disposal.

B.- Respiratory protection

Pictogram	PPE	Remarks
 Mandatory respiratory tract protection	Filter mask for gases and vapours	Replace when there is a taste or smell of the contaminant inside the face mask. If the contaminant comes with warnings it is recommended to use isolation equipment.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Butyl, Breakthrough time: > 480 min, Thickness: 0.7 mm)	Replace the gloves at any sign of deterioration.

As the product is a mixture of several substances, the resistance of the glove material can not be calculated in advance with total reliability and has therefore to be checked prior to the application.

D.- Eye and face protection

Pictogram	PPE	Remarks
 Mandatory face protection	Face shield	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Remarks
 Mandatory complete body protection	Disposable clothing for protection against chemical risks	For professional use only. Clean periodically according to the manufacturer's instructions.
 Mandatory foot protection	Safety footwear for protection against chemical risk	Replace boots at any sign of deterioration.

F.- Additional emergency measures

Emergency measure	Standards	Emergency measure	Standards
 Emergency shower	ANSI Z358-1 ISO 3864-1:2011, ISO 3864-4:2011	 Eyewash stations	DIN 12 899 ISO 3864-1:2011, ISO 3864-4:2011

Environmental exposure controls:

In accordance with the community legislation for the protection of the environment it is recommended to avoid environmental spillage of both the product and its container. For additional information see subsection 7.1.D

The Volatile Organic Compounds in Paints, Varnishes and Vehicle Refinishing Products Regulations 2012:

V.O.C. (Supply):	3.5 % weight
V.O.C. density at 20 °C:	37.87 kg/m ³ (37.87 g/L)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

For complete information see the product datasheet.

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Characteristic
Colour:	Colourless
Odour:	Characteristic
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	106 °C
Vapour pressure at 20 °C:	2302 Pa
Vapour pressure at 50 °C:	12126.1 Pa (12.13 kPa)
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	1082.1 kg/m ³
Relative density at 20 °C:	1.082
Dynamic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 20 °C:	Not relevant *
Kinematic viscosity at 40 °C:	Not relevant *
Concentration:	Not relevant *
pH:	7 - 9 (ASTM D3838-05)
Vapour density at 20 °C:	Not relevant *
Partition coefficient n-octanol/water 20 °C:	Not relevant *
Solubility in water at 20 °C:	Not relevant *
Solubility properties:	Not relevant *
Decomposition temperature:	Not relevant *
Melting point/freezing point:	Not relevant *

Flammability:

Flash Point:	Non Flammable (>60 °C)
Flammability (solid, gas):	Not relevant *
Autoignition temperature:	212 °C
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Non-applicable
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9.2 Other information:

Information with regard to physical hazard classes:

Explosive properties:	Not relevant *
Oxidising properties:	Not relevant *
Corrosive to metals:	Not relevant *
Heat of combustion:	Not relevant *
Aerosols-total percentage (by mass) of flammable components:	Not relevant *

Other safety characteristics:

Surface tension at 20 °C:	Not relevant *
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*Not relevant due to the nature of the product, not providing information property of its hazards.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Refraction index: Not relevant *

*Not relevant due to the nature of the product, not providing information property of its hazards.

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity:

No hazardous reactions are expected because the product is stable under recommended storage conditions. See section 7 from Safety Data Sheet.

10.2 Chemical stability:

Chemically stable under the indicated conditions of storage, handling and use.

10.3 Possibility of hazardous reactions:

Under the specified conditions, hazardous reactions that lead to excessive temperatures or pressure are not expected.

10.4 Conditions to avoid:

Applicable for handling and storage at room temperature:

Shock and friction	Contact with air	Increase in temperature	Sunlight	Humidity
Not applicable	Not applicable	Not applicable	Not applicable	Not applicable

10.5 Incompatible materials:

Acids	Water	Oxidising materials	Combustible materials	Others
Avoid strong acids	Not applicable	Avoid direct impact	Not applicable	Avoid alkalis or strong bases

10.6 Hazardous decomposition products:

See subsection 10.3, 10.4 and 10.5 to find out the specific decomposition products. Depending on the decomposition conditions, complex mixtures of chemical substances can be released: carbon dioxide (CO₂), carbon monoxide and other organic compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects:

The experimental information related to the toxicological properties of the product itself is not available

Contains glycols. It is recommended not to breathe the vapours for prolonged periods of time due to the possibility of effects that are hazardous to the health.

Dangerous health implications:

In case of exposure that is repetitive, prolonged or at concentrations higher than the recommended occupational exposure limits, adverse effects on health may result, depending on the means of exposure:

A- Ingestion (acute effect):

- Acute toxicity: Can be fatal if consumed. For more information see section 2.
- Corrosivity/Irritability: Corrosive product, if it is swallowed causes burns destroying the tissues. For more information about secondary effects from skin contact see section 2.

B- Inhalation (acute effect):

- Acute toxicity : Inhalation after prolonged exposure may be lethal.
- Corrosivity/Irritability: Prolonged inhalation of the product is corrosive to mucous membranes and the upper respiratory tract

C- Contact with the skin and the eyes (acute effect):

- Contact with the skin: Can be fatal if the product is absorbed through the skin. For more information on the secondary effects of skin contact see section 2.
- Contact with the eyes: Produces serious eye damage after contact.

D- CMR effects (carcinogenicity, mutagenicity and toxicity to reproduction):

- Carcinogenicity: Exposure to this product can cause cancer. For more specific information on the possible health effects see section 2.
IARC: 2-butoxyethanol (3); Formaldehyde (1)
- Mutagenicity: Exposure to this product can cause genetic modifications. For more specific information on the possible health effects see section 2.
- Reproductive toxicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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SECTION 11: TOXICOLOGICAL INFORMATION (continued)

E- Sensitizing effects:

- Respiratory: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous with sensitising effects. For more information see section 3.
- Skin: Prolonged contact with the skin can result in episodes of allergic contact dermatitis.

F- Specific target organ toxicity (STOT) - single exposure:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

G- Specific target organ toxicity (STOT)-repeated exposure:

- Specific target organ toxicity (STOT)-repeated exposure: Based on available data, the classification criteria are not met. However, it does contain substances which are classified as dangerous due to repetitive exposure. For more information see section 3.
- Skin: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

H- Aspiration hazard:

Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

Other information:

Not relevant

Specific toxicology information on the substances:

Identification	Acute toxicity		Genus
2-butoxyethanol CAS: 111-76-2	LD50 oral	1200 mg/kg (ATEi)	Rat
	LD50 dermal	3000 mg/kg	Rabbit
	LC50 inhalation	3 mg/L (ATEi)	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	LD50 oral	64 mg/kg (ATEi)	Rat
	LD50 dermal	87.12 mg/kg (ATEi)	Rabbit
	LC50 inhalation	0.33 mg/L (4 h)	Rat
Formaldehyde CAS: 50-00-0	LD50 oral	100 mg/kg (ATEi)	
	LD50 dermal	300 mg/kg (ATEi)	
	LC50 inhalation	3 mg/L (ATEi)	
diuron (ISO) CAS: 330-54-1	LD50 oral	1017 mg/kg (ATEi)	Rat
	LD50 dermal		
	LC50 inhalation		
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5	LD50 oral	500 mg/kg (ATEi)	Rat
	LD50 dermal		
	LC50 inhalation		

SECTION 12: ECOLOGICAL INFORMATION

The experimental information related to the eco-toxicological properties of the product itself is not available

Very toxic to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
2-butoxyethanol CAS: 111-76-2	LC50	1490 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	1815 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	911 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae

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SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Concentration		Species	Genus
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	LC50	>0.1 - 1 mg/L (96 h)		Fish
	EC50	>0.1 - 1 mg/L (48 h)		Crustacean
	EC50	>0.1 - 1 mg/L (72 h)		Algae
diuron (ISO) CAS: 330-54-1	LC50	6.6 mg/L (96 h)	Leuciscus idus	Fish
	EC50	1.4 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.022 mg/L (96 h)	Scenedesmus subspicatus	Algae
Formaldehyde CAS: 50-00-0	LC50	100 mg/L (96 h)	Lepomis macrochirus	Fish
	EC50	42 mg/L (24 h)	Daphnia magna	Crustacean
	EC50	Not relevant		

Chronic toxicity:

Identification	Concentration		Species	Genus
2-butoxyethanol CAS: 111-76-2	NOEC	100 mg/L	Danio rerio	Fish
	NOEC	100 mg/L	Daphnia magna	Crustacean
diuron (ISO) CAS: 330-54-1	NOEC	0.001 mg/L	Danio rerio	Fish
	NOEC	0.56 mg/L	Daphnia magna	Crustacean
Formaldehyde CAS: 50-00-0	NOEC	Not relevant		
	NOEC	6.4 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
2-butoxyethanol CAS: 111-76-2	BOD5	0.71 g O2/g	Concentration	100 mg/L
	COD	2.2 g O2/g	Period	14 days
	BOD5/COD	0.32	% Biodegradable	96 %
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	0 %
diuron (ISO) CAS: 330-54-1	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	0 %
Formaldehyde CAS: 50-00-0	BOD5	Not relevant	Concentration	100 mg/L
	COD	Not relevant	Period	14 days
	BOD5/COD	Not relevant	% Biodegradable	92 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
2-butoxyethanol CAS: 111-76-2	BCF	3
	Pow Log	0.83
	Potential	Low
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5	BCF	2
	Pow Log	1.45
	Potential	Low
diuron (ISO) CAS: 330-54-1	BCF	64
	Pow Log	2.68
	Potential	Moderate
Formaldehyde CAS: 50-00-0	BCF	3
	Pow Log	0.35
	Potential	Low

12.4 Mobility in soil:

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
2-butoxyethanol CAS: 111-76-2	Koc	8	Henry	1.621E-1 Pa·m ³ /mol
	Conclusion	Very High	Dry soil	No
	Surface tension	2.729E-2 N/m (25 °C)	Moist soil	Yes
Formaldehyde CAS: 50-00-0	Koc	Not relevant	Henry	Not relevant
	Conclusion	Not relevant	Dry soil	Not relevant
	Surface tension	1.416E-2 N/m (25 °C)	Moist soil	Not relevant

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS
13.1 Waste treatment methods:

Code	Description	Waste class
	It is not possible to assign a specific code, as it depends on the intended use by the user	Hazardous

Type of waste:

HP14 Ecotoxic, HP6 Acute Toxicity, HP7 Carcinogenic, HP11 Mutagenic

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance The Waste (England & Wales) Regulations 2011, 2011 No. 988. As under 15 01 of the code and in case the container has been in direct contact with the product, it will be processed the same way as the actual product. Otherwise, it will be processed as non-hazardous residue. Waste should not be disposed of to drains. See paragraph 6.2.

Regulations related to waste management:

In accordance with Annex II of UK REACH the provisions related to waste management are stated:

UK legislation: The Waste (England & Wales) Regulations 2011.

SECTION 14: TRANSPORT INFORMATION
Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:


14.1 UN number:

UN2927

14.2 UN proper shipping name:

TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (2-butoxyethanol; Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1))

14.3 Transport hazard class(es):

6.1

Labels:

6.1, 8

14.4 Packing group:

II

14.5 Environmental hazards:

Yes

14.6 Special precautions for user

Tunnel restriction code:

D/E

Physico-Chemical properties:

see section 9

Limited quantities:

100 mL

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:

Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

MICRO ART AD 45

SECTION 14: TRANSPORT INFORMATION (continued)



- 14.1 UN number:** UN2927
- 14.2 UN proper shipping name:** TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (2-butoxyethanol; Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1))
- 14.3 Transport hazard class(es):** 6.1
- Labels:** 6.1, 8
- 14.4 Packing group:** II
- 14.5 Marine pollutant:** Yes
- 14.6 Special precautions for user**
- Special regulations: 274
- EmS Codes: F-A, S-B
- Physico-Chemical properties: see section 9
- Limited quantities: 100 mL
- Segregation group: Not relevant
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:



- 14.1 UN number:** UN2927
- 14.2 UN proper shipping name:** TOXIC LIQUID, CORROSIVE, ORGANIC, N.O.S. (2-butoxyethanol; Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1))
- 14.3 Transport hazard class(es):** 6.1
- Labels:** 6.1, 8
- 14.4 Packing group:** II
- 14.5 Environmental hazards:** Yes
- 14.6 Special precautions for user**
- Physico-Chemical properties: see section 9
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code:** Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Substances listed in UK candidate list of substances of very high concern (SVHCs): Not relevant
- Substances listed in UK REACH Authorisation List (Annex 14): Not relevant

The Control of Major Accident Hazards Regulations 2015:

Section	Description	Lower-tier requirements	Upper-tier requirements
H2	ACUTE TOXIC	50	200
E1	ENVIRONMENTAL HAZARDS	100	200

Restrictions to commercialisation and the use of certain dangerous substances and mixtures (Annex XVII UK REACH, etc):

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SECTION 15: REGULATORY INFORMATION (continued)

Product classified hazardous under the CMR. Sale and distribution to the general public is prohibited. Due to its CMR category, it is essential to apply the specific measures for workplace hazard prevention covered in articles 4 and 5 of the 2004/37/EC Directive and later modifications.

Shall not be used in:

- ornamental articles intended to produce light or colour effects by means of different phases, for example in ornamental lamps and ashtrays,
- tricks and jokes,
- games for one or more participants, or any article intended to be used as such, even with ornamental aspects.

Contains more than 0.0015 % of Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) by weight. The placing on the market of treated articles is subject to the following conditions: | (1) | In view of the risks identified for human health, mixtures treated with or incorporating C(M)IT/MIT (3:1) and placed on the market for use by the general public shall not contain C(M)IT/MIT (3:1) at a concentration triggering classification as skin sensitiser, unless exposure can be avoided by other means than the wearing of personal protective equipment. | (2) | In view of the risks identified for human health, liquid detergents treated with or incorporating C(M)IT/MIT (3:1) and placed on the market for use by professional users shall not contain C(M)IT/MIT (3:1) at a concentration triggering classification as skin sensitiser, unless exposure can be avoided by other means than the wearing of personal protective equipment. | (3) | In view of the risks identified for human health, mixtures treated with or incorporating C(M)IT/MIT (3:1), other than liquid detergents, and placed on the market for use by professional users shall not contain C(M)IT/MIT (3:1) at a concentration triggering classification as skin sensitiser, unless exposure can be avoided, including by the wearing of personal protective equipment. | (4) | The person responsible for the placing on the market of a treated article treated with or incorporating C(M)IT/MIT (3:1) shall ensure that the label of that treated article provides the information listed in the second subparagraph of Article 58(3) of Regulation (EU) No 528/2012.

Specific provisions in terms of protecting people or the environment:

It is recommended to use the information included in this safety data sheet as a basis for conducting workplace-specific risk assessments in order to establish the necessary risk prevention measures for the handling, use, storage and disposal of this product.

Other legislation:

The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

The Chemicals (Health and Safety) and Genetically Modified Organisms (Contained Use) (Amendment etc.) (EU Exit) Regulations 2020.

Control of Substances Hazardous to Health Regulations 2002 (as amended)

EH40/2005 Workplace exposure limits.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

This safety data sheet has been designed in accordance with ANNEX II-The REACH etc. (Amendment etc.) (EU Exit) Regulations 2020.

Texts of the legislative phrases mentioned in section 2:

- H314: Causes severe skin burns and eye damage.
- H318: Causes serious eye damage.
- H400: Very toxic to aquatic life.
- H410: Very toxic to aquatic life with long lasting effects.
- H317: May cause an allergic skin reaction.
- H350: May cause cancer.
- H341: Suspected of causing genetic defects.
- H301+H311: Toxic if swallowed or in contact with skin.
- H330: Fatal if inhaled.

Texts of the legislative phrases mentioned in section 3:

The phrases indicated do not refer to the product itself; they are present merely for informative purposes and refer to the individual components which appear in section 3

GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567):

SECTION 16: OTHER INFORMATION (continued)

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled.
 Acute Tox. 3: H301 - Toxic if swallowed.
 Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled.
 Acute Tox. 4: H302 - Harmful if swallowed.
 Acute Tox. 4: H302+H332 - Harmful if swallowed or if inhaled.
 Aquatic Acute 1: H400 - Very toxic to aquatic life.
 Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.
 Carc. 1B: H350 - May cause cancer.
 Carc. 2: H351 - Suspected of causing cancer.
 Eye Dam. 1: H318 - Causes serious eye damage.
 Eye Irrit. 2: H319 - Causes serious eye irritation.
 Muta. 2: H341 - Suspected of causing genetic defects.
 Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.
 Skin Corr. 1C: H314 - Causes severe skin burns and eye damage.
 Skin Irrit. 2: H315 - Causes skin irritation.
 Skin Sens. 1: H317 - May cause an allergic skin reaction.
 Skin Sens. 1A: H317 - May cause an allergic skin reaction.
 STOT RE 2: H373 - May cause damage to organs through prolonged or repeated exposure.

Classification procedure:

Skin Corr. 1C: Calculation method
 Eye Dam. 1: Calculation method
 Aquatic Acute 1: Calculation method
 Aquatic Chronic 1: Calculation method
 Skin Sens. 1A: Calculation method
 Carc. 1B: Calculation method
 Muta. 2: Calculation method
 Acute Tox. 3: Calculation method
 Acute Tox. 2: Calculation method

Advice related to training:

Training is recommended in order to prevent industrial risks for staff using this product and to facilitate their comprehension and interpretation of this safety data sheet, as well as the label on the product.

Principal bibliographical sources:

<http://echa.europa.eu>
<http://eur-lex.europa.eu>

Abbreviations and acronyms:

ADR: European agreement concerning the international carriage of dangerous goods by road
 IMDG: International maritime dangerous goods code
 IATA: International Air Transport Association
 ICAO: International Civil Aviation Organisation
 COD: Chemical Oxygen Demand
 BOD5: 5day biochemical oxygen demand
 BCF: Bioconcentration factor
 LD50: Lethal Dose 50
 LC50: Lethal Concentration 50
 EC50: Effective concentration 50
 LogPOW: Octanolwater partition coefficient
 Koc: Partition coefficient of organic carbon
 UFI: unique formula identifier
 IARC: International Agency for Research on Cancer

The information contained in this safety data sheet is based on sources, technical knowledge and current legislation at UK, without being able to guarantee its accuracy. This information cannot be considered a guarantee of the properties of the product, it is simply a description of the security requirements. The occupational methodology and conditions for users of this product are not within our awareness or control, and it is ultimately the responsibility of the user to take the necessary measures to obtain the legal requirements concerning the manipulation, storage, use and disposal of chemical products. The information on this safety data sheet only refers to this product, which should not be used for needs other than those specified.

- END OF SAFETY DATA SHEET -