

Root & Shoot

Date of compilation: 09/12/2020

Revised: 30/10/2024

Version: 4 (Replaced 3)

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

- 1.1 Product identifier:** Root & Shoot
- Other means of identification:**
Not relevant
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**
Relevant uses: Fertiliser. For professional users only.
Uses advised against (Professional users): All other uses.
- 1.3 Details of the supplier of the safety data sheet:**
Soiltech
Biezenmortelsestraat 57
5074 RJ Biezenmortel - The Netherlands
Phone: +31(0)411 648 105
SDS@soiltech.nl
www.soiltech.nl
- 1.4 Emergency telephone number:** NPIS National Poisons Information Service helpline number 0344 892 0111 it is explicitly stated that this number is for use only by healthcare professionals. public service numbers the NHS 111/NHS 24

SECTION 2: HAZARDS IDENTIFICATION

- 2.1 Classification of the substance or mixture:**
CLP Regulation (EC) No 1272/2008:
Classification of this product has been carried out in accordance with CLP Regulation (EC) No 1272/2008.
Aquatic Chronic 3: Hazardous to the aquatic environment, long-term hazard, Category 3, H412
- 2.2 Label elements:**
CLP Regulation (EC) No 1272/2008:
Hazard statements:
Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.
Precautionary statements:
P273: Avoid release to the environment.
P501: Dispose of contents/container in accordance with regulations on hazardous waste or packaging and packaging waste respectively.
Supplementary information:
EUH208: Contains 1,2-benzisothiazol-3(2H)-one, Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1). May produce an allergic reaction.
- 2.3 Other hazards:**
Product does not meet PBT/vPvB criteria
Endocrine-disrupting properties: The product does not meet the 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 Regulation (EC) No 1907/2006 (point 3), the product contains:

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020 Revised: 30/10/2024 Version: 4 (Replaced 3)

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Identification	Chemical name/Classification	Concentration
CAS: 2634-33-5 EC: 220-120-9 Index: 613-088-00-6 REACH: 01-2120761540-60-XXXX	1,2-benzisothiazol-3(2H)-one⁽¹⁾ ATP CLP00	<0.1 %
	Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1: H317 - Danger	
CAS: 71786-60-2 EC: 276-014-8 Index: Non-applicable REACH: 01-2119957489-17-XXXX	Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs.⁽¹⁾ Self-classified	<0.1 %
	Regulation 1272/2008 Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Repr. 2: H361; Skin Corr. 1C: H314 - Danger	
CAS: 55965-84-9 EC: Non-applicable Index: 613-167-00-5 REACH: Non-applicable	Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)⁽¹⁾ ATP ATP13	<0.1 %
	Regulation 1272/2008 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⁾ Substances presenting a health or environmental hazard which meet criteria laid down in Regulation (EU) No. 2020/878

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

Other information:

Identification	M-factor	
	Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	Acute
	Chronic	10
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	Acute	100
	Chronic	100

Identification	Specific concentration limit
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	% (w/w) >=0.05: Skin Sens. 1 - H317
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	% (w/w) >=0.6: Skin Corr. 1C - H314 0.06<= % (w/w) <0.6: Skin Irrit. 2 - H315 % (w/w) >=0.6: Eye Dam. 1 - H318 0.06<= % (w/w) <0.6: Eye Irrit. 2 - H319 % (w/w) >=0.0015: Skin Sens. 1A - H317

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
	1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	LD50 oral	
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	LD50 oral	1700 mg/kg	Rat
	LD50 dermal	Not relevant	
	LC50 inhalation	Not relevant	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LD50 oral	64 mg/kg	Rat
	LD50 dermal	87,12 mg/kg	Rabbit
	LC50 inhalation	Not relevant	

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures:

The symptoms resulting from intoxication can appear after exposure, therefore, in case of doubt, seek medical attention for direct exposure to the chemical product or persistent discomfort, showing the SDS of this product.

By inhalation:

This product is not classified as hazardous through inhalation. However, in case of intoxication symptoms it is recommended to remove the person affected from the area of exposure, provide clean air and keep at rest. Request medical attention if symptoms persist.

By skin contact:

This product is not classified as hazardous when in contact with the skin. However, in case of skin contact it is recommended to remove contaminated clothes and shoes, rinse the skin or if necessary shower the affected person thoroughly with cold water and neutral soap. In case of serious reaction consult a doctor.

By eye contact:

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020

Revised: 30/10/2024

Version: 4 (Replaced 3)

SECTION 4: FIRST AID MEASURES (continued)

Rinse eyes thoroughly with water for at least 15 minutes. If the injured person uses contact lenses, these should be removed unless they are stuck to the eyes, in which case removal could cause further damage. In all cases, after cleaning, a doctor should be consulted as quickly as possible with the SDS for the product.

By ingestion/aspiration:

Do not induce vomiting, but if it does happen keep the head down to avoid aspiration. Keep the person affected at rest. Rinse out the mouth and throat, as they may have been affected during ingestion.

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,...) in accordance with Directive 89/654/EC.

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.

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

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020 Revised: 30/10/2024 Version: 4 (Replaced 3)

SECTION 7: HANDLING AND STORAGE (continued)

7.1 Precautions for safe handling:

A.- General precautions for safe use

Comply with the current legislation concerning the prevention of industrial risks with regards manually handling weights. Maintain order, cleanliness and dispose of using safe methods (section 6).

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

Store in a cool, dry, well-ventilated location

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 (European OEL, not country-specific legislation):

There are no applicable occupational exposure limits for the substances contained in the product

DNEL (Workers):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
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
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	Oral	Not relevant	Not relevant	Not relevant	Not relevant
	Dermal	Not relevant	Not relevant	0,17 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,59 mg/m ³	Not relevant

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
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
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	Oral	Not relevant	Not relevant	0,06 mg/kg	Not relevant
	Dermal	Not relevant	Not relevant	0,06 mg/kg	Not relevant
	Inhalation	Not relevant	Not relevant	0,09 mg/m ³	Not relevant

PNEC:

Identification			
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	STP	1,03 mg/L	Fresh water
	Soil	3 mg/kg	Marine water
	Intermittent	0,0011 mg/L	Sediment (Fresh water)
	Oral	Not relevant	Sediment (Marine water)

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020 Revised: 30/10/2024 Version: 4 (Replaced 3)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

Identification				
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	STP	2,2 mg/L	Fresh water	0,000183 mg/L
	Soil	5 mg/kg	Marine water	0,000018 mg/L
	Intermittent	0,001 mg/L	Sediment (Fresh water)	1,692 mg/kg
	Oral	0,002 g/kg	Sediment (Marine water)	0,169 mg/kg

8.2 Exposure controls:

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

As a preventative measure it is recommended to use basic Personal Protective Equipment, with the corresponding <<CE marking>> in accordance with Regulation (EU) 2016/425. For more information on Personal Protective Equipment (storage, use, cleaning, maintenance, class of protection,...) consult the information leaflet provided by the manufacturer. For more 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

The use of protection equipment will be necessary if a mist forms or if the occupational exposure limits are exceeded.

C.- Specific protection for the hands

Pictogram	PPE	Labelling	CEN Standard	Remarks
 Mandatory hand protection	Chemical protective gloves (Material: Nitrile, Breakthrough time: > 480 min)		EN ISO 21420:2020	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	Labelling	CEN Standard	Remarks
 Mandatory face protection	Panoramic glasses against splash/projections.		EN 166:2002 EN ISO 4007:2018	Clean daily and disinfect periodically according to the manufacturer's instructions. Use if there is a risk of splashing.

E.- Body protection

Pictogram	PPE	Labelling	CEN Standard	Remarks
	Work clothing			Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 6529:2013, EN ISO 6530:2005, EN ISO 13688:2013, EN 464:1994.
	Anti-slip work shoes		EN ISO 20347:2022	Replace before any evidence of deterioration. For periods of prolonged exposure to the product for professional/industrial users CE III is recommended, in accordance with the regulations in EN ISO 20345:2022 y EN 13832-1:2007

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

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020 Revised: 30/10/2024 Version: 4 (Replaced 3)

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

9.1 Information on basic physical and chemical properties:

Appearance:

Physical state at 20 °C:	Liquid
Appearance:	Fluid
Colour:	Brown
Odour:	Pungent
Odour threshold:	Not relevant *

Volatility:

Boiling point at atmospheric pressure:	Not relevant *
Vapour pressure at 20 °C:	Not relevant *
Vapour pressure at 50 °C:	Not relevant *
Evaporation rate at 20 °C:	Not relevant *

Product description:

Density at 20 °C:	Not relevant *
Relative density at 20 °C:	Not relevant *
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 - 8
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:	Not relevant *
Lower flammability limit:	Not relevant *
Upper flammability limit:	Not relevant *

Particle characteristics:

Median equivalent diameter:	Non-applicable
-----------------------------	----------------

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 *
Refraction index:	Not relevant *

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

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020

Revised: 30/10/2024

Version: 4 (Replaced 3)

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 hazard classes as defined in Regulation (EC) No 1272/2008:

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

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: Based on available data, the classification criteria are not met, however, it contains substances classified as dangerous for consumption. For more information see section 3.
- Corrosivity/Irritability: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

B- Inhalation (acute effect):

- Acute toxicity : Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for inhalation. For more information see section 3.
- 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: Based on available data, the classification criteria are not met. However, it contains substances classified as hazardous for skin contact. For more information see section 3.
- Contact with the eyes: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

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

- Carcinogenicity: Based on available data, the classification criteria are not met, as it does not contain substances classified as hazardous for the effects mentioned. For more information see section 3.
IARC: (r)-p-mentha-1,8-diene (3); Eugenol (3); 7-methyl-3-methyleneocta-1,6-diene (2B)
- Mutagenicity: 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.
- Reproductive toxicity: Based on available data, the classification criteria are not met. However, it does contain substances classified as hazardous for this effect. For more information see section 3.

E- Sensitizing effects:

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020 Revised: 30/10/2024 Version: 4 (Replaced 3)

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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: Based on available data, the classification criteria are not met. However, it contains substances classified as dangerous with sensitising effects. For more information see section 3.

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, as it does not contain substances classified as hazardous for this effect. 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
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	LD50 oral	500 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation		
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	LD50 oral	1700 mg/kg	Rat
	LD50 dermal		
	LC50 inhalation		
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	LD50 oral	64 mg/kg	Rat
	LD50 dermal	87,12 mg/kg	Rabbit
	LC50 inhalation	0,33 mg/L (4 h)	Rat

11.2 Information on other hazards:

Endocrine disrupting properties

Endocrine-disrupting properties: The product does not meet the criteria.

Other information

Not relevant

SECTION 12: ECOLOGICAL INFORMATION

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

Harmful to aquatic life with long lasting effects.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	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
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	LC50	0,28 mg/L (96 h)	Brachydanio rerio	Fish
	EC50	0,48 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0,1 mg/L (72 h)	Pseudokirchneriella subcapitata	Algae
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9 EC: Non-applicable	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

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020 Revised: 30/10/2024 Version: 4 (Replaced 3)

SECTION 12: ECOLOGICAL INFORMATION (continued)

Chronic toxicity:

Identification	Concentration		Species	Genus
	NOEC	Not relevant		
Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	NOEC	0,32 mg/L	Daphnia magna	Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
	BOD5	Not relevant	Concentration	100 mg/L
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	COD	Not relevant	Period	28 days
	BOD5/COD	Not relevant	% Biodegradable	0 %
	Ethanol, 2,2'-iminobis-, N-C12-18-alkyl derivs. CAS: 71786-60-2 EC: 276-014-8	BOD5	Not relevant	Concentration
COD		Not relevant	Period	28 days
BOD5/COD		Not relevant	% Biodegradable	74 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
	BCF	2
1,2-benzisothiazol-3(2H)-one CAS: 2634-33-5 EC: 220-120-9	Pow Log	1.45
	Potential	Low

12.4 Mobility in soil:

Not available

12.5 Results of PBT and vPvB assessment:

Product does not meet PBT/vPvB criteria

12.6 Endocrine disrupting properties:

Endocrine-disrupting properties: The product does not meet the criteria.

12.7 Other adverse effects:

Not described

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class (Regulation (EU) No 1357/2014)
06 10 02*	wastes containing hazardous substances	Hazardous

Type of waste (Regulation (EU) No 1357/2014):

HP14 Ecotoxic

Waste management (disposal and evaluation):

Consult the authorized waste service manager on the assessment and disposal operations in accordance with Annex 1 and Annex 2 (Directive 2008/98/EC). As under 15 01 (2014/955/EC) 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 Regulation (EC) No 1907/2006 (REACH) the community or state provisions related to waste management are stated

Community legislation: Directive 2008/98/EC, 2014/955/EU, Regulation (EU) No 1357/2014

SECTION 14: TRANSPORT INFORMATION

Transport of dangerous goods by land:

With regard to ADR 2023 and RID 2023:

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020

Revised: 30/10/2024

Version: 4 (Replaced 3)

SECTION 14: TRANSPORT INFORMATION (continued)

- 14.1 UN number or ID number:** Not relevant
- 14.2 UN proper shipping name:** Not relevant
- 14.3 Transport hazard class(es):** Not relevant
- Labels: Not relevant
- 14.4 Packing group:** Not relevant
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
- Special regulations: Not relevant
- Tunnel restriction code: Not relevant
- Physico-Chemical properties: see section 9
- Limited quantities: Not relevant
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by sea:

With regard to IMDG 41-22:

- 14.1 UN number or ID number:** Not relevant
- 14.2 UN proper shipping name:** Not relevant
- 14.3 Transport hazard class(es):** Not relevant
- Labels: Not relevant
- 14.4 Packing group:** Not relevant
- 14.5 Marine pollutant:** No
- 14.6 Special precautions for user**
- Special regulations: Not relevant
- EmS Codes:
- Physico-Chemical properties: see section 9
- Limited quantities: Not relevant
- Segregation group: Not relevant
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

Transport of dangerous goods by air:

With regard to IATA/ICAO 2024:

- 14.1 UN number or ID number:** Not relevant
- 14.2 UN proper shipping name:** Not relevant
- 14.3 Transport hazard class(es):** Not relevant
- Labels: Not relevant
- 14.4 Packing group:** Not relevant
- 14.5 Environmental hazards:** No
- 14.6 Special precautions for user**
- Physico-Chemical properties: see section 9
- 14.7 Maritime transport in bulk according to IMO instruments:** Not relevant

SECTION 15: REGULATORY INFORMATION

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

- Regulation (EC) No 528/2012: contains a preservative to protect the initial properties of the treated article. Contains 1,2-benzisothiazol-3(2H)-one, 2-methyl-2H-isothiazol-3-one, Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1).
- Article 95, REGULATION (EU) No 528/2012: *1,2-benzisothiazol-3(2H)-one (2634-33-5) - PT: (2,6,9,11,12,13) ; Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) (55965-84-9) - PT: (2,4,6,11,12,13)*
- Candidate substances for authorisation under the Regulation (EC) No 1907/2006 (REACH): Not relevant
- Regulation (EU) No 2024/590, about substances that deplete the ozone layer: Not relevant
- REGULATION (EU) No 649/2012, in relation to the import and export of hazardous chemical products: Not relevant
- Substances included in Annex XIV of REACH ("Authorisation List") and sunset date: Not relevant

- CONTINUED ON NEXT PAGE -

SECTION 15: REGULATORY INFORMATION (continued)

Seveso III:

Not relevant

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

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.

Laboral exposure to respirable crystalline silica must be controlled in accordance with Directive (EU) 2022/431, of the European Parliament and of the Council, of March 9, 2022, amending Directive 2004/37/EC, relating to the protection of workers against risks related to exposure to carcinogens or mutagens during work.

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 product could be affected by sectorial legislation

Regulation (EU) 2019/1009 of the European Parliament and of the Council of 5 June 2019 laying down rules on the making available on the market of EU fertilising products.

15.2 Chemical safety assessment:

The supplier has not carried out evaluation of chemical safety.

SECTION 16: OTHER INFORMATION

Legislation related to safety data sheets:

The SDS shall be supplied in an official language of the country where the product is placed on the market. This safety data sheet has been designed in accordance with ANNEX II-Guide to the compilation of safety data sheets of Regulation (EC) No 1907/2006 (COMMISSION REGULATION (EU) 2020/878).

Modifications related to the previous Safety Data Sheet which concerns the ways of managing risks.:

Not relevant

Texts of the legislative phrases mentioned in section 2:

H412: Harmful to aquatic life with long lasting effects.

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

CLP Regulation (EC) No 1272/2008:

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled.

Acute Tox. 3: H301 - Toxic if swallowed.

Acute Tox. 4: H302 - Harmful if swallowed.

Aquatic Acute 1: H400 - Very toxic to aquatic life.

Aquatic Chronic 1: H410 - Very toxic to aquatic life with long lasting effects.

Eye Dam. 1: H318 - Causes serious eye damage.

Repr. 2: H361 - Suspected of damaging fertility or the unborn child.

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.

Classification procedure:

Aquatic Chronic 3: 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:

- CONTINUED ON NEXT PAGE -

Root & Shoot

Date of compilation: 09/12/2020

Revised: 30/10/2024

Version: 4 (Replaced 3)

SECTION 16: OTHER INFORMATION (continued)

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 European and state level, 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 -