66-5 - AQUABAN - SHOWER-TIGHT

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

1.1 Product identifier: 66-5 - AQUABAN - SHOWER-TIGHT

Other means of identification:

Not relevant

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

Relevant uses (Consumer use): Coating for facades

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:

Palace Chemicals Ltd
Speke Hall Industrial Estate
L24 1YA Liverpool - United Kingdom
UK Poisons information - contact NHS 111

1.4 Emergency telephone number: 0151 486 6101

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):

The product is not classified as hazardous according to GB CLP Regulation (UK S.I. 2019/720 and UK S.I. 2020/1567).

2.2 Label elements:

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

Hazard statements:

Not relevant

Precautionary statements:

Not relevant

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), 2-methylisothiazol-3(2H)-one. 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:

Not relevant

3.2 Mixture:

Chemical description: Mixture composed of chemical products

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: 2634-33-5 EC: 220-120-9 REACH: 01-2120761540-60-XXXX	**1,2-Benzisothiazol-3(2H)-one** Acute Tox. 2: H330; Acute Tox. 4: H302; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Irrit. 2: H315; Skin Sens. 1A: H317 - Danger	**<1%**
CAS: 55965-84-9 EC: Not relevant REACH: Not relevant	**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%**
CAS: 2682-20-4 EC: 220-239-6 REACH: 01-2120764690-50-XXXX	**2-methylisothiazol-3(2H)-one** Acute Tox. 2: H330; Acute Tox. 3: H301+H311; Aquatic Acute 1: H400; Aquatic Chronic 1: H410; Eye Dam. 1: H318; Skin Corr. 1B: H314; Skin Sens. 1A: H317; EUH071 - Danger	**<1%**

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

- CONTINUED ON NEXT PAGE -

PALACE CHEMICALS Ltd

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS (continued)

Other information:

Identification	M-factor	
1,2-Benzisothiazol-3(2H)-one CAS: 2634-33-5	Acute	1
	Chronic	1
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	Acute	100
	Chronic	100
2-methylisothiazol-3(2H)-one CAS: 2682-20-4	Acute	10
	Chronic	1

Identification	Specific concentration limit
1,2-Benzisothiazol-3(2H)-one CAS: 2634-33-5	% (w/w) >=0.036: Skin Sens. 1A - 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	% (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
2-methylisothiazol-3(2H)-one CAS: 2682-20-4	% (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	450 mg/kg	
	LD50 dermal	Not relevant	
	LC50 inhalation vapour	0.5 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 EC: Not relevant	LD50 oral	64 mg/kg	
	LD50 dermal	87.12 mg/kg	
	LC50 inhalation vapour	1.433 mg/L *	
2-methylisothiazol-3(2H)-one CAS: 2682-20-4 EC: 220-239-6	LD50 oral	120 mg/kg	
	LD50 dermal	242 mg/kg	
	LC50 inhalation vapour	0.5 mg/L *	

*Equivalent ATE value of the substance applicable to the exposure route of the product. For the ATE value associated with the exposure route of the substance, see section 11.

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:

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:

- CONTINUED ON NEXT PAGE -

SECTION 4: FIRST AID MEASURES (continued)

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. 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:

It is recommended to avoid environmental spillage of both the product and its container.

6.3 Methods and material for containment and cleaning up:

It is recommended:

Prevent the entrance of product in drains, sewers or watercourses. Absorb the spill using sand or inert absorbent and move it to a safe place. Do not absorb in sawdust or other combustible absorbents. Collect the product in appropriate containers and manage it according to current legislation.
Spillages in water or sea:
Small spillages:
Contain spillage using barriers or similar equipment. Use suitable absorbents for collection and treat the waste in accordance with current regulations.
Large spillages:
If possible, contain spillage in open water using barriers or similar equipment. If this is not possible, try to control its spread and collect the product with suitable mechanical means. Always consult experts before using dispersants and make sure you have the necessary approvals if they are to be used. Treat the waste according to current regulations.

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

- CONTINUED ON NEXT PAGE -

SECTION 7: HANDLING AND STORAGE (continued)

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

It is recommended to have absorbent material available at close proximity to the product (See subsection 6.3)

7.2 Conditions for safe storage, including any incompatibilities:

A.- Specific storage requirements

Minimum Temp.: 5 ºC

Maximum Temp.: 30 ºC

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 assessed in the workplace:

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	Oral	Not available	Not available	Not available	Not available
CAS: 2634-33-5	Dermal	Not available	Not available	0.966 mg/kg	Not available
EC: 220-120-9	Inhalation	Not available	Not available	6.81 mg/m³	Not available
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Oral	Not available	Not available	Not available	Not available
CAS: 55965-84-9	Dermal	Not available	Not available	Not available	Not available
EC: Not available	Inhalation	Not available	0.04 mg/m³	Not available	0.02 mg/m³
2-methylisothiazol-3(2H)-one	Oral	Not available	Not available	Not available	Not available
CAS: 2682-20-4	Dermal	Not available	Not available	Not available	Not available
EC: 220-239-6	Inhalation	Not available	0.043 mg/m³	Not available	0.021 mg/m³

DNEL (General population):

Identification		Short exposure		Long exposure	
		Systemic	Local	Systemic	Local
1,2-Benzisothiazol-3(2H)-one	Oral	Not available	Not available	Not available	Not available
CAS: 2634-33-5	Dermal	Not available	Not available	0.345 mg/kg	Not available
EC: 220-120-9	Inhalation	Not available	Not available	1.2 mg/m³	Not available
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	Oral	0.11 mg/kg	Not available	0.09 mg/kg	Not available
CAS: 55965-84-9	Dermal	Not available	Not available	Not available	Not available
EC: Not available	Inhalation	Not available	0.04 mg/m³	Not available	0.02 mg/m³
2-methylisothiazol-3(2H)-one	Oral	0.053 mg/kg	Not available	0.027 mg/kg	Not available
CAS: 2682-20-4	Dermal	Not available	Not available	Not available	Not available
EC: 220-239-6	Inhalation	Not available	0.043 mg/m³	Not available	0.021 mg/m³

PALACE CHEMICALS Ltd

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

PNEC:

Identification				
1,2-Benzisothiazol-3(2H)-one	STP	1.03 mg/L	Fresh water	0.00403 mg/L
CAS: 2634-33-5	Soil	3 mg/kg	Marine water	0.000403 mg/L
EC: 220-120-9	Intermittent	0.0011 mg/L	Sediment (Fresh water)	0.0499 mg/kg
	Oral	Not available	Sediment (Marine water)	0.00499 mg/kg
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	STP	0.23 mg/L	Fresh water	0.00339 mg/L
CAS: 55965-84-9	Soil	0.01 mg/kg	Marine water	0.00339 mg/L
EC: Not available	Intermittent	0.00339 mg/L	Sediment (Fresh water)	0.027 mg/kg
	Oral	Not available	Sediment (Marine water)	0.027 mg/kg
2-methylisothiazol-3(2H)-one	STP	0.23 mg/L	Fresh water	0.00339 mg/L
CAS: 2682-20-4	Soil	0.047 mg/kg	Marine water	0.00339 mg/L
EC: 220-239-6	Intermittent	0.00339 mg/L	Sediment (Fresh water)	Not available
	Oral	Not available	Sediment (Marine water)	Not available

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 <<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 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

If the working conditions and/or safety measures adopted do not allow keeping the airborne concentration of the product below the exposure limits (if any) or at acceptable levels (if no exposure limits exist), suitable respiratory protection equipment chosen by a qualified professional should be used.

C.- Specific protection for the hands

Pictogram	PPE	Remarks
 Mandatory hand protection	Protective gloves against minor risks	Replace gloves in case of any sign of damage. For prolonged periods of exposure to the product for professional users/industrials, we recommend using CE III gloves in line with standards EN ISO 21420:2020 and EN ISO 374-1:2016+ A1:2018

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	Panoramic glasses against splash/projections.	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
	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	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 13832-1:2019

F.- Additional emergency measures

It is advised to implement additional emergency equipments in workplaces that are particularly exposed to the product or in situations where risk assessments highlight the necessity of such equipments.

- CONTINUED ON NEXT PAGE -

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (continued)

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:

To comply with environmental protection regulations, it is recommended to prevent any spillage of the product and its container. For more detailed information, please refer to subsection 7.1.D.

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

V.O.C. (Supply): 0 % weight

V.O.C. density at 20 ºC: 0 kg/m³ (0 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 ºC:	Liquid
Appearance:	Dispersion
Colour:	Lemon
Odour:	Ammoniacal
Odour threshold:	Not available *

Volatility:

Boiling point at atmospheric pressure:	100 ºC
Vapour pressure at 20 ºC:	2350 Pa
Vapour pressure at 50 ºC:	12380.97 Pa (12.38 kPa)
Evaporation rate at 20 ºC:	Not available *

Product description:

Density at 20 ºC:	1.3 kg/m³
Relative density at 20 ºC:	>1.55
Dynamic viscosity at 20 ºC:	Not available *
Kinematic viscosity at 20 ºC:	Not available *
Kinematic viscosity at 40 ºC:	Not available *
Concentration:	Not available *
pH:	>8.5
Relative vapour density at 20 ºC:	Not available *
Partition coefficient n-octanol/water 20 ºC:	Not available *
Solubility in water at 20 ºC:	Not available *
Solubility properties:	Not available *
Decomposition temperature:	Not available *
Melting point/freezing point:	Not available *

Flammability:

Flash Point:	Non Flammable (>60 ºC)
Flammability (solid, gas):	Not available *
Autoignition temperature:	396 ºC
Lower flammability limit:	Not available *
Upper flammability limit:	Not available *

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

- CONTINUED ON NEXT PAGE -

PALACE CHEMICALS Ltd

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (continued)

Particle characteristics:

Median equivalent diameter:	Not available *

9.2 Other information:

Information with regard to physical hazard classes:

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

Other safety characteristics:

Surface tension at 20 ºC:	Not available *
Refraction index:	Not available *

*Not available 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 (CO_2), 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

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):

- CONTINUED ON NEXT PAGE -

PALACE CHEMICALS Ltd

SECTION 11: TOXICOLOGICAL INFORMATION (continued)

- 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: Titanium dioxide (2B: Possibly carcinogenic to humans)
- 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, as it does not contain substances classified as hazardous for this effect. For more information see section 3.

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: 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	450 mg/kg	
	LD50 dermal	>2000 mg/kg	
	LC50 inhalation dust	0.21 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 EC: Not relevant	LD50 oral	64 mg/kg	Rat
	LD50 dermal	87.12 mg/kg	Rabbit
	LC50 inhalation mist	0.33 mg/L	Rat
2-methylisothiazol-3(2H)-one CAS: 2682-20-4 EC: 220-239-6	LD50 oral	120 mg/kg	Rat
	LD50 dermal	242 mg/kg	Rat
	LC50 inhalation dust	0.34 mg/L	Rat

11.2 Information on other hazards:

Endocrine disrupting properties

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

SECTION 12: ECOLOGICAL INFORMATION

- CONTINUED ON NEXT PAGE -

PALACE CHEMICALS Ltd

SECTION 12: ECOLOGICAL INFORMATION (continued)

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

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.

12.1 Toxicity:

Acute toxicity:

Identification	Concentration		Species	Genus
1,2-Benzisothiazol-3(2H)-one	LC50	2.18 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 2634-33-5	EC50	2.9 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	0.11 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)	LC50	0.28 mg/L (96 h)	Lepomis macrochirus	Fish
CAS: 55965-84-9	EC50	0.007 mg/L (48 h)	Acartia tonsa	Crustacean
	EC50	0.0199 mg/L (72 h)	Skeletonema costatum	Algae
2-methylisothiazol-3(2H)-one	LC50	4.77 mg/L (96 h)	Oncorhynchus mykiss	Fish
CAS: 2682-20-4	EC50	0.934 mg/L (48 h)	Daphnia magna	Crustacean
	EC50	Not relevant		

Chronic toxicity:

Identification	Concentration		Species	Genus
1,2-Benzisothiazol-3(2H)-one	NOEC	>0.01 - 0.1 mg/L		Fish
CAS: 2634-33-5	NOEC	>0.01 - 0.1 mg/L		Crustacean
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	NOEC	>0.001 - 0.01 mg/L		Fish
CAS: 55965-84-9	NOEC	>0.001 - 0.01 mg/L		Crustacean

12.2 Persistence and degradability:

Substance-specific information:

Identification	Degradability		Biodegradability	
1,2-Benzisothiazol-3(2H)-one	BOD5	Not relevant	Concentration	1 mg/L
CAS: 2634-33-5	COD	Not relevant	Period	63 days
EC: 220-120-9	BOD5/COD	Not relevant	% Biodegradable	85 %
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	BOD5	Not relevant	Concentration	0.3 mg/L
CAS: 55965-84-9	COD	Not relevant	Period	29 days
EC: Not relevant	BOD5/COD	Not relevant	% Biodegradable	38.8 %
2-methylisothiazol-3(2H)-one	BOD5	Not relevant	Concentration	Not relevant
CAS: 2682-20-4	COD	Not relevant	Period	29 days
EC: 220-239-6	BOD5/COD	Not relevant	% Biodegradable	54.1 %

12.3 Bioaccumulative potential:

Substance-specific information:

Identification	Bioaccumulation potential	
1,2-Benzisothiazol-3(2H)-one	BCF	7
CAS: 2634-33-5	Pow Log	0.7
EC: 220-120-9	Potential	Low
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1)	BCF	54
CAS: 55965-84-9	Pow Log	0.75
EC: Not relevant	Potential	Moderate
2-methylisothiazol-3(2H)-one	BCF	6
CAS: 2682-20-4	Pow Log	-0.49
EC: 220-239-6	Potential	Low

12.4 Mobility in soil:

Identification	Absorption/desorption		Volatility	
1,2-Benzisothiazol-3(2H)-one	Koc	9.33	Henry	Not relevant
CAS: 2634-33-5	Conclusion	Very High	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant

- CONTINUED ON NEXT PAGE -

SECTION 12: ECOLOGICAL INFORMATION (continued)

Identification	Absorption/desorption		Volatility	
Reaction mass of 5-chloro-2-methyl-2H-isothiazol-3-one and 2-methyl-2H-isothiazol-3-one (3:1) CAS: 55965-84-9	Koc	7.7	Henry	5E-3 Pa·m³/mol
	Conclusion	Very High	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant
2-methylisothiazol-3(2H)-one CAS: 2682-20-4	Koc	11.5	Henry	Not relevant
	Conclusion	Very High	Dry soil	Not relevant
	Surface tension	Not relevant	Moist soil	Not relevant

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.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:

Code	Description	Waste class
08 01 12	waste paint and varnish other than those mentioned in 08 01 11	Non-hazardous

Type of waste:

Not relevant

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 2025 and RID 2025:

14.1 UN 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

Tunnel restriction code: Not relevant

Physico-Chemical properties: see section 9

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 42-24:

PALACE CHEMICALS Ltd

- CONTINUED ON NEXT PAGE -

SECTION 14: TRANSPORT INFORMATION (continued)

14.1	**UN 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	**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 2026:

14.1	**UN 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	**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:

- Convention on the Prohibition of the Development, Production, Stockpiling and Use of Chemical Weapons and on Their Destruction(CWC): Not relevant
- Prior Informed Consent (PIC) List: Not relevant
- 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:

Not relevant

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

Not relevant

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:

- CONTINUED ON NEXT PAGE -

PALACE CHEMICALS Ltd

SECTION 16: OTHER INFORMATION (continued)

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 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):

Acute Tox. 2: H310+H330 - Fatal in contact with skin or if inhaled.
Acute Tox. 2: H330 - Fatal if inhaled.
Acute Tox. 3: H301 - Toxic if swallowed.
Acute Tox. 3: H301+H311 - Toxic if swallowed or in contact with skin.
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.
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. 1A: H317 - May cause an allergic skin reaction.

Classification procedure:

Not relevant

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

PALACE CHEMICALS Ltd

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 -