

Trade name: AVERT-AB

**SECTION 1: Identification of the substance/ mixture and of the company/undertaking****1.1 Product identifier For industrial and professional use only.**

- Trade name: **AVERT-AB**
- Article number: 6818

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

- Application of the substance / the mixture Surface Coating

**1.3 Details of the supplier of the safety data sheet**

• Supplier:  
 NORIGIN SCIENTIFIC LIMITED  
 14 Penrose Wharf,  
 Penrose Quay,  
 Cork, Ireland TK23 EK0E,  
 TEL: +44 (0)7768 852657  
 Email: [info@norigin-sci.com](mailto:info@norigin-sci.com)

- Further information obtainable from:  
[sales@norigin-sci.com](mailto:sales@norigin-sci.com)

**1.4 Emergency telephone number:**

+44 (0)7768 852657 (business hours)

**SECTION 2: Hazards identification****2.1 Classification of the substance or mixture**

- Classification according to Regulation (EC) No 1272/2008  
 Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.

**2.2 Label elements**

- Labelling according to Regulation (EC) No 1272/2008  
 The product is classified and labelled according to the GB CLP regulation.
- Hazard pictograms **Void**
- Signal word **Void**
- Hazard statements  
 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 local/regional/national/international regulations.
- Additional information:  
 EUH208 Contains reaction mass of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H-isothiazol-3-one [EC no. 220-239-6] (3:1), 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one. May produce an allergic reaction.

**2.3 Other hazards**

- Results of PBT and vPvB assessment
- PBT: Not applicable
- vPvP: Not applicable

Antibacterial Coatings

**AVERT-AB**

Safety data sheet

According to 1907/2006/EC, Article 31

Version number: 1.10

Issue Date: 01 Mar 2024

Trade name: AVERT-AB

**SECTION 3: Composition/information on ingredients****3.2 Chemical characterisation:** Mixtures

- **Description:** Mixture of substances listed below with nonhazardous additions.

**Dangerous components:**

CAS: 112-34-5 EINECS: 203-961-6 Reg.nr.01-2119475104-44-xxxx	2-(2-butoxyethoxy)ethanol  • Eye Irrit. 2, H319	>1-≤2.5%
CAS: 20018-09-1 EINECS: 243-468-3	Dii domethyl-p-tolyl sulfone  • Acute Tox. 3, H331; • Eye Dam. 1, H318; • Aquatic Acute 1, H400; • Aquatic Chronic 1, H410; • Acute Tox. 4, H302	≤1%
CAS: 68002-97-1 NLP: 500-182-6	Alcohols, C10-16, ethoxylated  • Eye Dam. 1, H318; • Aquatic Acute 1, H400; • Acute Tox. 4, H302; Skin Irrit. 2, H315	≤1%
CAS: 2634-33-5 EINECS: 220-120-9 Reg.nr.: 01-2120761540-60	1,2-benzisothiazol-3(2H)-one;1, 2-benzisothiazolin-3-one  • Eye Dam. 1, H318; • Aquatic Acute 1, H400; • Acute Tox. 4, H302; Skin Irrit. 2, H315; Skin Sens. 1, H317	≤1%

**Additional information:** For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures****4.1 Description of first aid measures**

- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Immediately wash with water and soap and rinse thoroughly. Remove contaminated clothing.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** Do not induce vomiting; call for medical help immediately and show safety datasheet or label.

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

No further relevant information available.

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

Treat symptomatically.

**SECTION 5: Firefighting measures****5.1 Extinguishing media****Suitable extinguishing agents:**

Use fire extinguishing methods suitable to surrounding conditions.

**5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

**5.3 Advice for firefighters**

**Protective equipment:** Put on breathing apparatus

**SECTION 6: Accidental release measures****6.1 Personal precautions, protective equipment and emergency procedures** Not required.**6.2 Environmental precautions:**

Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system. Dilute with plenty of water.  
Do not allow to enter sewers/ surface or ground water.

**6.3 Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to section 13.

**6.4 Reference to other sections**

See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

Trade name: AVERT-AB

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

- **Keep receptacles tightly sealed.**
- **Hygiene measures:**

Wash hands before breaks and at the end of workday.

- **Information about fire** - and explosion protection:  
No special measures required.

#### 7.2 Conditions for safe storage, including any incompatibilities

- **Storage:** Requirements to be met by storerooms and receptacles: No special requirements. Information about storage in one common storage facility: Not required.

- **Further information about storage conditions:**  
Keep receptacle tightly sealed and in a well-ventilated place.  
Keep away from heat.

#### 7.3 Specific end use(s)

No further relevant information available.

### SECTION 8: Exposure controls/personal protection

#### 8.1 Control parameters

- Additional information about design of technical facilities: No further data; see section 7.

Ingredients with limit values that require monitoring at the workplace:		
112-34-5 2-(2-butoxyethoxy)ethanol		
WEL	Short-term value: 101.2 mg/m3, 15 ppm Long-term value: 67.5 mg/m3, 10 ppm	
20018-09-1 Diiodomethyl-p-tolyl sulfone		
TWA	Long-term value: 6 mg/m3	
DNELs		
112-34-5 2-(2-butoxyethoxy)ethanol		
Oral	DNEL	1.25 mg/day (Con)
Dermal	DNEL	10 mg/day (Con) 20 mg/day (Ind)
Inhalative	DNEL	34 mg/m3 (Con) 67.5 mg/m3 (Ind)
2634-33-5 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one		
Dermal	DNEL	0.345 mg/day (Con) 0.966 mg/day (Ind)
Inhalative	DNEL	1.2 mg/m3 (Con) 6.81 mg/m3 (Ind)

**Additional information:** The lists valid during the making were used as basis.

#### 8.2 Exposure controls

- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Wash hands before breaks and at the end of work.
- **Respiratory protection:** Particulate cartridge filter type when LEV cannot be supplied
- **Protection of hands:**  
When skin exposure may occur, advice should be sought from the glove supplier on appropriate types and usage times for this product.
- **Eye protection:** Goggles recommended during refilling

Trade name: AVERT-AB

SECTION 9: Physical and chemical properties	
<b>9.1: Information on basic physical and chemical properties</b>	
<b>Appearance:</b> <b>Form:</b> Liquid <b>Colour:</b> White <b>Odour:</b> Characteristic <b>Odour threshold:</b> Not determined.	<b>Density</b> <b>Density at 20 °C:</b> 1.124 g/cm <sup>3</sup> <b>Relative density:</b> not determined <b>Vapour density:</b> not determined <b>Evaporation rate:</b> not determined
<b>pH-value:</b> Not determined.	<b>Vapour pressure at 20 °C</b> 23 hPa
<b>Change in condition:</b> Melting point/freezing point: Undetermined. Initial boiling point and boiling range: 100 °C	<b>Solubility in / Miscibility with water:</b> Fully miscible.
<b>Flash point:</b> >100 °C	<b>Partition coefficient: n-octanol/water:</b> Not determined.
<b>Flammability (solid, gas):</b> Not applicable.	<b>Viscosity:</b> <b>Dynamic at 20°C:</b> 6500 mPas <b>Kinematic:</b> Not determined.
<b>Decomposition temperature:</b> Not determined.	<b>Solvent content:</b> Organic solvents: 6.3 %, Water: 51.1 %
<b>Ignition temperature:</b> Product is not selfigniting.	<b>Solids content:</b> 59.1 %
<b>Explosive properties:</b> Product does not present an explosive risk.	
<b>Explosion limits:</b> Lower: Not determined. Upper: Not determined.	
<b>9.2 Other information:</b> No further relevant information available.	

Trade name: AVERT-AB

**SECTION 10: Stability and reactivity**• **10.1 Reactivity**

No further relevant information available.

• **10.2 Chemical stability**

Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.

• **10.3 Possibility of hazardous reactions**

No dangerous reactions known.

• **10.4 Conditions to avoid**

No further relevant information available.

• **10.5 Incompatible materials:**

No further relevant information available.

• **10.6 Hazardous decomposition products:**

No dangerous decomposition products when stored and handled correctly

**SECTION 11: Toxicological information**• **11.1 Information on toxicological effects**

Acute toxicity Based on available data, the classification criteria are not met.

**LD/LC50 values relevant for classification:****112-34-5 2-(2-butoxyethoxy)ethanol:**

Oral	LD50	>2,000 mg/kg (Rat)
------	------	--------------------

Dermal	LD50	>2,000 mg/kg (Rat)
--------	------	--------------------

**20018-09-1 Diiodomethyl-p-tolyl sulfone:**

Oral	LD50	>500 mg/kg (Rat)
------	------	------------------

Inhalative	LC50/4 h	0.77 mg/l (Rat)
------------	----------	-----------------

**68002-97-1 Alcohols, C10-16, ethoxylated:**

Oral	LD50	1,700 mg/kg (Rat)
------	------	-------------------

Inhalative	LC50	>2,000 mg/kg (Rat)
------------	------	--------------------

**2634-33-5 1,2-benzisothiazol-3(2H)-one;1,2-benzisothiazolin-3-one:**

Oral	LD50	670 mg/kg (Rat)
------	------	-----------------

Dermal	LC50	>2,000 mg/kg (Rat)
--------	------	--------------------

Inhalative	LC50/4 h	0.5 mg/l (Rat)
------------	----------	----------------

• **Primary irritant effect:****Skin corrosion/irritation**

Based on available data, the classification criteria are not met.

**Serious eye damage/irritation**

Based on available data, the classification criteria are not met.

**Respiratory or skin sensitisation**

Based on available data, the classification criteria are not met.

**Additional toxicological information:****CMR effects**

(carcinogenicity, mutagenicity and toxicity for reproduction)

**Germ cell mutagenicity**

Based on available data, the classification criteria are not met.

**Carcinogenicity**

Based on available data, the classification criteria are not met.

**Reproductive toxicity**

Based on available data, the classification criteria are not met.

**STOT-single exposure**

Based on available data, the classification criteria are not met.

**STOT-repeated exposure**

Based on available data, the classification criteria are not met.

**Aspiration hazard**

Based on available data, the classification criteria are not met.

Trade name: AVERT-AB

SECTION 12: Ecological information
<p><b>12.1 Toxicity</b> Aquatic toxicity: No further relevant information available.</p>
<p><b>12.2 Persistence and degradability</b> No further relevant information available.</p>
<p><b>12.3 Bioaccumulative potential</b> No further relevant information available.</p>
<p><b>12.4 Mobility in soil</b> No further relevant information available.</p> <ul style="list-style-type: none"> <li>• <b>Ecotoxicological effects:</b> Remark: Harmful to fish</li> <li>• <b>Additional ecological information:</b></li> <li>• <b>General notes:</b> Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system. Harmful to aquatic organisms</li> </ul>
<p><b>12.5 Results of PBT and vPvB assessment</b> PBT: Not applicable. vPvB: Not applicable.</p>
<p><b>12.6 Other adverse effects</b> No further relevant information available.</p>

SECTION 13: Disposal considerations
<p><b>13.1 Waste treatment methods</b></p> <ul style="list-style-type: none"> <li>• <b>Recommendation</b> Must not be disposed together with household garbage. Do not allow product to reach sewage system.</li> <li>• <b>Uncleaned packaging:</b> Recommendation: Disposal must be made according to official regulations.</li> <li>• <b>Recommended cleansing agents:</b> Water, if necessary together with cleansing agents.</li> </ul>

SECTION 14: Transport information
<ul style="list-style-type: none"> <li>• <b>14.1 UN-Number</b> ADR, ADN, IMDG, IATA <b>Void</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>14.2 UN proper shipping name</b> ADR, ADN, IMDG, IATA <b>Void</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>14.3 Transport hazard class(es)</b> ADR, ADN, IMDG, IATA <b>Void</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>14.4 Packing group</b> ADR, ADN, IMDG, IATA Class <b>Void</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>14.5 Environmental hazards:</b> Marine pollutant: <b>No</b></li> </ul>
<ul style="list-style-type: none"> <li>• <b>14.6 Special precautions for user</b> Not applicable.</li> </ul>
<ul style="list-style-type: none"> <li>• <b>14.7 Transport in bulk according to Annex II of Marpol and the IBC Code</b> Not applicable. UN "Model Regulation": <b>Void</b></li> </ul>

Trade name: AVERT-AB

**SECTION 15: Regulatory information**

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

- **Poisons Act**
- **Regulated explosives precursors**  
None of the ingredients is listed.
- **Regulated poisons**  
None of the ingredients is listed.
- **Reportable explosives precursors**  
None of the ingredients is listed.
- **Reportable poisons**  
None of the ingredients is listed

- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.
- **National regulations**

• **Technical instructions (air):**

<i>Class</i>	<i>Share in %</i>
<i>Water</i>	<i>51.1</i>
<i>Organic Solvents</i>	<i>6.3</i>

• **Waterhazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.

• **15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

• **Full text of H-Statements referred to under sections 2 and 3:**

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H331 Toxic if inhaled.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.
- **Department issuing SDS:**  
Product safety department: LABORATORY
- **Contact: Health & Safety Officer**

• **Abbreviations and acronyms:**

- RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
- ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- IATA: International Air Transport Association
- GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- DNEL: Derived No-Effect Level (UK REACH)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Acute Tox. 4: Acute toxicity – Category 4
- Acute Tox. 3: Acute toxicity – Category 3
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Skin Sens. 1: Skin sensitisation – Category 1
- Aquatic Acute 1: Hazardous to the aquatic environment – acute aquatic hazard – Category 1
- Aquatic Chronic 1: Hazardous to the aquatic environment – long term aquatic hazard – Category 1
- Aquatic Chronic 3: Hazardous to the aquatic environment – long term aquatic hazard – Category 3