

## Safety Data Sheet

According to Annex II to REACH - Regulation (EU) 2020/878

### SECTION 1. Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

Code: 0460921P  
Product name: PROTECH WAC-RC

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

Intended use: Protective anti-carbonation finish, for use in aggressive environments

#### 1.3. Details of the supplier of the safety data sheet

Name: AZICHEM SRL  
Full address: Via G. Gentile 16/A  
District and Country: 46044 Goito (Mantova) Italia  
Tel.: 0376604185  
e-mail address of the competent person responsible for the Safety Data Sheet: laboratorio@azichem.com

#### 1.4. Emergency telephone number

For urgent inquiries refer to:  
Osp. Pediatrico Bambino Gesù ROMA: 06 68593726  
Az. Osp. Univ. Foggia FOGGIA: 800183459  
Az. Osp. "A. Cardarelli" NAPOLI: 081-5453333  
Policlinico "Umberto I" ROMA: 06-49978000  
Policlinico "A. Gemelli" ROMA: 06-3054343  
Az. Osp. "Careggi" U.O. Tossicologia Medica FIRENZE: 055-7947819  
Centro Nazionale di Informazione Tossicologica PAVIA: 0382-24444  
Osp. Niguarda Ca' Granda MILANO: 02-66101029  
Azienda Ospedaliera Papa Giovanni XXII BERGAMO: 800883300  
Azienda Ospedaliera Integrata VERONA: 800011858

### SECTION 2. Hazards identification

#### 2.1. Classification of the substance or mixture

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to (EU) Regulation 2020/878.

Hazard classification and indication: --

#### 2.2. Label elements

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:

**EUH210**

**EUH208**

Safety data sheet available on request.

Contains: MIXTURE OF: 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE [N. CE 247-500-7];  
2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)  
1,2-BENZISOTHIAZOL-3(2H)-ONE

May produce an allergic reaction.

Precautionary statements: --

## SECTION 2. Hazards identification ... / >>

### 2.3. Other hazards

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

The product does not contain substances with endocrine disrupting properties in concentration  $\geq$  0.1%.

## SECTION 3. Composition/information on ingredients

### 3.2. Mixtures

Contains:

| Identification                                                                                                                     | x = Conc. %      | Classification (EC) 1272/2008 (CLP)                                                                                                                                                               |
|------------------------------------------------------------------------------------------------------------------------------------|------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>2-(2-BUTOXYETHOXY)ETHANOL</b>                                                                                                   |                  |                                                                                                                                                                                                   |
| INDEX 603-096-00-8                                                                                                                 | $2 \leq x < 2,5$ | Eye Irrit. 2 H319                                                                                                                                                                                 |
| EC 203-961-6                                                                                                                       |                  |                                                                                                                                                                                                   |
| CAS 112-34-5                                                                                                                       |                  |                                                                                                                                                                                                   |
| <b>1,2-BENZISOTHIAZOL-3(2H)-ONE</b>                                                                                                |                  |                                                                                                                                                                                                   |
| INDEX 613-088-00-6                                                                                                                 | $0 < x < 0,05$   | Acute Tox. 4 H302, Eye Dam. 1 H318, Skin Irrit. 2 H315, Skin Sens. 1 H317, Aquatic Acute 1 H400 M=1, Aquatic Chronic 2 H411                                                                       |
| EC 220-120-9                                                                                                                       |                  | Skin Sens. 1 H317: $\geq 0,05\%$                                                                                                                                                                  |
| CAS 2634-33-5                                                                                                                      |                  | LD50 Oral: 490 mg/kg                                                                                                                                                                              |
| REACH Reg. 01-2120761540-60-xxxx                                                                                                   |                  |                                                                                                                                                                                                   |
| <b>MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)</b> |                  |                                                                                                                                                                                                   |
| INDEX 613-167-00-5                                                                                                                 | $0 < x < 0,0015$ | Acute Tox. 2 H310, Acute Tox. 2 H330, Acute Tox. 3 H301, Skin Corr. 1C H314, Eye Dam. 1 H318, Skin Sens. 1A H317, Aquatic Acute 1 H400 M=100, Aquatic Chronic 1 H410 M=100, EUH071                |
| EC                                                                                                                                 |                  | Skin Corr. 1C H314: $\geq 0,6\%$ , Skin Irrit. 2 H315: $\geq 0,06\% - < 0,6\%$ , Skin Sens. 1A H317: $\geq 0,0015\%$ , Eye Dam. 1 H318: $\geq 0,6\%$ , Eye Irrit. 2 H319: $\geq 0,06\% - < 0,6\%$ |
| CAS 55965-84-9                                                                                                                     |                  | LD50 Oral: 200 mg/kg, LD50 Dermal: 87,12 mg/kg, LC50 Inhalation mists/powders: 0,33 mg/l/4h                                                                                                       |
| REACH Reg. 01-2120764691-48-xxxx                                                                                                   |                  |                                                                                                                                                                                                   |

The full wording of hazard (H) phrases is given in section 16 of the sheet.

## SECTION 4. First aid measures

### 4.1. Description of first aid measures

No effects requiring implementation of special first aid measures are expected. The following information represents practical indications of correct behaviour in the event of contact with a chemical product, even if not hazardous.

In case of doubt or in the presence of symptoms contact a doctor and show him this document.

In case of more severe symptoms, ask for immediate medical aid.

EYES: Remove, if present, contact lenses if the situation allows you to do so easily. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Take off contaminated clothing. Wash immediately and thoroughly with running water (and soap if possible). Get medical advice. Avoid further contact with contaminated clothing.

INGESTION: Do not induce vomiting unless explicitly authorised by a doctor. Do not give anything by mouth to an unconscious person. Get medical advice/attention.

INHALATION: Remove victim to fresh air, away from the accident scene. Get medical advice/attention.

#### Rescuer protection

It is good practice for rescuers lending support to a person who has been exposed to a chemical substance or to a mixture to wear personal protective equipment. The nature of such protection depends on the hazard level of the substance or mixture, on the type of exposure and on the extent of the contamination. In the absence of other more specific indications, use of disposable gloves in the event of possible contact with body fluids is recommended. For the type of PPE suitable for the characteristics of the substance or mixture, see section 8.

### 4.2. Most important symptoms and effects, both acute and delayed

Specific information on symptoms and effects caused by the product are unknown.

DELAYED EFFECTS: Based on the information currently available, there are no known cases of delayed effects following exposure to this product.

**SECTION 4. First aid measures ... / >>****4.3. Indication of any immediate medical attention and special treatment needed**

If symptoms occur, whether acute or delayed, consult a doctor.

Means to have available in the workplace for specific and immediate treatment

Running water for skin and eye wash.

**SECTION 5. Firefighting measures****5.1. Extinguishing media****SUITABLE EXTINGUISHING EQUIPMENT**

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

**UNSUITABLE EXTINGUISHING EQUIPMENT**

None in particular.

**5.2. Special hazards arising from the substance or mixture****HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE**

Do not breathe combustion products.

**5.3. Advice for firefighters****GENERAL INFORMATION**

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

**SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS**

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

**SECTION 6. Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures**

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

**6.2. Environmental precautions**

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

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

Collect the leaked product into a suitable container. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

**6.4. Reference to other sections**

Any information on personal protection and disposal is given in sections 8 and 13.

**SECTION 7. Handling and storage****7.1. Precautions for safe handling**

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use. Remove any contaminated clothes and personal protective equipment before entering places in which people eat.

**7.2. Conditions for safe storage, including any incompatibilities**

Store only in the original container. Store the containers sealed, in a well ventilated place, away from direct sunlight. Keep containers away from any incompatible materials, see section 10 for details.

## SECTION 7. Handling and storage ... / >>

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory references:

|     |                |                                                                                                                                                                                                                                                                                                                                                        |
|-----|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BGR | България       | НАРЕДБА № 13 ОТ 30 ДЕКЕМВРИ 2003 Г. ЗА ЗАЩИТА НА РАБОТЕЩИТЕ ОТ РИСКОВЕ, СВЪРЗАНИ С ЕКСПОЗИЦИЯ НА ХИМИЧНИ АГЕНТИ ПРИ РАБОТА (изм. ДВ. бр.28 от 2 Април 2024г.)                                                                                                                                                                                          |
| DEU | Deutschland    | WirkungDosisNOAELMAK-und BAT-Werte-Liste 2024 Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe                                                                                                                                                                                                                               |
| ESP | España         | Límites de exposición profesional para agentes químicos en España 2024                                                                                                                                                                                                                                                                                 |
| FRA | France         | Valeurs limites d'exposition professionnelle aux agents chimiques en FranceDécret n° 2021-1849 du 28 décembre 2021                                                                                                                                                                                                                                     |
| GRC | Ελλάδα         | Π.Δ. 26/2020 (ΦΕΚ 50/Α` 6.3.2020) Εναρμόνιση της ελληνικής νομοθεσίας προς τις διατάξεις των οδηγιών 2017/2398/ΕΕ, 2019/130/ΕΕ και 2019/983/ΕΕ «για την τροποποίηση της οδηγίας 2004/37/ΕΚ "σχετικά με την προστασία των εργαζομένων από τους κινδύνους που συνδέονται με την έκθεση σε καρκινογόνους ή μεταλλαξιογόνους παράγοντες κατά την εργασία"» |
| HUN | Magyarország   | Az innovációért és technológiáért felelős miniszter 5/2020. (II. 6.) ITM rendelete a kémiai kóroki tényezők hatásának kitett munkavállalók egészségének és biztonságának védelméről                                                                                                                                                                    |
| ITA | Italia         | Decreto Legislativo 9 Aprile 2008, n.81                                                                                                                                                                                                                                                                                                                |
| PRT | Portugal       | Decreto-Lei n.º 102/2024, de 4 de dezembro. Sumário: Transpõe para a ordem jurídica interna a Diretiva (UE) 2022/431, relativa à proteção dos trabalhadores contra riscos ligados à exposição a agentes cancerígenos ou mutagénicos e procede à quarta alteração                                                                                       |
| POL | Polska         | ROZPORZĄDZENIE MINISTRA RODZINY, PRACY I POLITYKI SPOŁECZNEJ z dnia 24 czerwca 2024 r. zmieniające rozporządzenie w sprawie najwyższych dopuszczalnych stężeń i natężeń czynników szkodliwych dla zdrowia w środowisku pracy                                                                                                                           |
| ROU | România        | HOTĂRÂRE nr. 179 din 28 februarie 2024 pentru modificarea și completarea Hotărârii Guvernului nr. 1.093/2006 privind stabilirea cerințelor minime de securitate și sănătate pentru protecția lucrătorilor împotriva riscurilor legate de expunerea la agenți ca                                                                                        |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits (Fourth Edition 2020)                                                                                                                                                                                                                                                                                              |
| EU  | OEL EU         | Directive (EU) 2022/431; Directive (EU) 2019/1831; Directive (EU) 2019/130; Directive (EU) 2019/983; Directive (EU) 2017/2398; Directive (EU) 2017/164; Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC; Directive 98/24/EC; Directive 91/322/EEC.                                                             |
|     | ACGIH          | ACGIH 2025                                                                                                                                                                                                                                                                                                                                             |

### 2-(2-BUTOXYETHOXY)ETHANOL

#### Threshold Limit Value

| Type      | Country | TWA/8h |     | STEL/15min |        | Remarks / Observations |
|-----------|---------|--------|-----|------------|--------|------------------------|
|           |         | mg/m3  | ppm | mg/m3      | ppm    |                        |
| TLV       | BGR     | 67,5   | 10  | 101,2      | 15     |                        |
| AGW       | DEU     | 67     | 10  | 100,5 (C)  | 15 (C) | Hinweis                |
| MAK       | DEU     | 67     | 10  | 100,5      | 15     | Hinweis                |
| VLA       | ESP     | 67,5   | 10  | 101,2      | 15     |                        |
| VLEP      | FRA     | 68     | 10  | 101,2      | 15     |                        |
| TLV       | GRC     | 67,5   | 10  | 101,2      | 15     |                        |
| AK        | HUN     | 67,5   |     | 101,2      |        |                        |
| VLEP      | ITA     | 67,5   | 10  | 101,2      | 15     |                        |
| VLE       | PRT     | 67,5   | 10  | 101,2      | 15     |                        |
| NDS/NDSch | POL     | 67     |     | 100        |        |                        |
| TLV       | ROU     | 67,5   | 10  | 101,2      | 15     |                        |
| WEL       | GBR     | 67,5   | 10  | 101,2      | 15     |                        |
| OEL       | EU      | 67,5   | 10  | 101,2      | 15     |                        |
| ACGIH     |         | 66     | 10  |            |        | INHAL                  |

## SECTION 8. Exposure controls/personal protection ... / >>

### 1,2-BENZISOTHIAZOL-3(2H)-ONE

#### Predicted no-effect concentration - PNEC

|                                                     |          |         |
|-----------------------------------------------------|----------|---------|
| Normal value in fresh water                         | 0,00403  | mg/l    |
| Normal value in marine water                        | 0,000403 | mg/l    |
| Normal value for fresh water sediment               | 0,0499   | mg/kg/d |
| Normal value for marine water sediment              | 0,0499   | mg/kg/d |
| Normal value for marine water, intermittent release | 0,0011   | mg/l    |
| Normal value for fresh water, intermittent release  | 0,00011  | mg/l    |
| Normal value of STP microorganisms                  | 103      | mg/l    |
| Normal value for the terrestrial compartment        | 3        | mg/kg/d |

#### Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers |                | Chronic local | Chronic systemic      | Effects on workers |                |               |                        |
|-------------------|----------------------|----------------|---------------|-----------------------|--------------------|----------------|---------------|------------------------|
|                   | Acute local          | Acute systemic |               |                       | Acute local        | Acute systemic | Chronic local | Chronic systemic       |
| Inhalation        |                      |                |               | 1,2 mg/m <sup>3</sup> |                    |                |               | 6,81 mg/m <sup>3</sup> |
| Skin              | LOW                  |                | LOW           | 0,345 mg/kg bw/d      | LOW                |                | LOW           | 0,966 mg/kg bw/d       |

### MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE

[No. CE 220-239-6] (3:1)

#### Predicted no-effect concentration - PNEC

|                                                     |         |         |
|-----------------------------------------------------|---------|---------|
| Normal value in fresh water                         | 0,00339 | mg/l    |
| Normal value in marine water                        | 0,00339 | mg/l    |
| Normal value for fresh water sediment               | 0,027   | mg/kg/d |
| Normal value for marine water sediment              | 0,027   | mg/kg/d |
| Normal value for marine water, intermittent release | 0,00339 | mg/l    |
| Normal value for fresh water, intermittent release  | 0,00339 | mg/l    |
| Normal value of STP microorganisms                  | 0,25    | mg/l    |
| Normal value for the terrestrial compartment        | 0,01    | mg/kg/d |

#### Health - Derived no-effect level - DNEL / DMEL

| Route of exposure | Effects on consumers   |                 | Chronic local          | Chronic systemic | Effects on workers     |                |                        |                  |
|-------------------|------------------------|-----------------|------------------------|------------------|------------------------|----------------|------------------------|------------------|
|                   | Acute local            | Acute systemic  |                        |                  | Acute local            | Acute systemic | Chronic local          | Chronic systemic |
| Oral              |                        | 0,11 mg/kg bw/d |                        | 0,09 mg/kg bw/d  |                        |                |                        |                  |
| Inhalation        | 0,04 mg/m <sup>3</sup> |                 | 0,02 mg/m <sup>3</sup> |                  | 0,04 mg/m <sup>3</sup> |                | 0,02 mg/m <sup>3</sup> |                  |
| Skin              | MED                    |                 |                        |                  | MED                    |                |                        |                  |

#### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.

VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified ; LOW = low hazard ; MED = medium hazard ; HIGH = high hazard.

## 8.2. Exposure controls

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration.

#### HAND PROTECTION

Protect hands with category III work gloves.

The following should be considered when choosing work glove material (see standard EN 374): compatibility, degradation, permeability time. The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Regulation 2016/425 and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN ISO 16321).

#### RESPIRATORY PROTECTION

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. Use a mask with a type A filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387).

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

## SECTION 9. Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

| Properties                             | Value                 | Information |
|----------------------------------------|-----------------------|-------------|
| Appearance                             | liquid                |             |
| Colour                                 | white                 |             |
| Odour                                  | characteristic        |             |
| Melting point / freezing point         | not available         |             |
| Initial boiling point                  | 100 °C                |             |
| Flammability                           | not flammable         |             |
| Lower explosive limit                  | not available         |             |
| Upper explosive limit                  | not available         |             |
| Flash point                            | not available         |             |
| Auto-ignition temperature              | not available         |             |
| Decomposition temperature              | not available         |             |
| pH                                     | not available         |             |
| Kinematic viscosity                    | not available         |             |
| Solubility                             | not available         |             |
| Partition coefficient: n-octanol/water | not available         |             |
| Vapour pressure                        | not available         |             |
| Density and/or relative density        | 1,3 g/cm <sup>3</sup> |             |
| Relative vapour density                | not available         |             |
| Particle characteristics               | not applicable        |             |

### 9.2. Other information

#### 9.2.1. Information with regard to physical hazard classes

Information not available

#### 9.2.2. Other safety characteristics

Information not available

## SECTION 10. Stability and reactivity

### 10.1. Reactivity

There are no particular risks of reaction with other substances in normal conditions of use.

### 10.2. Chemical stability

The product is stable in normal conditions of use and storage.

### 10.3. Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

#### 2-(2-BUTOXYETHOXY)ETHANOL

May react with: oxidising substances. May form peroxides with: oxygen. Develops hydrogen on contact with: aluminium. May form explosive mixtures with: air.

### 10.4. Conditions to avoid

None in particular. However the usual precautions used for chemical products should be respected.

#### 2-(2-BUTOXYETHOXY)ETHANOL

Avoid exposure to: air.

### 10.5. Incompatible materials

#### 2-(2-BUTOXYETHOXY)ETHANOL

**SECTION 10. Stability and reactivity** ... / >>

Incompatible with: oxidising substances, strong acids, alkaline metals.

**1,2-BENZISOTHIAZOL-3(2H)-ONE**

Oxidizing agents, acids, reducing agents.

MIXTURE OF: 5-CHLORO-2-METHYL-2H-ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Oxidizing agents, Amines, Reducing agents, Mercaptans.

**10.6. Hazardous decomposition products****2-(2-BUTOXYETHOXY)ETHANOL**

May develop: hydrogen.

**1,2-BENZISOTHIAZOL-3(2H)-ONE**

Sulfur oxides, nitrogen oxides.

**SECTION 11. Toxicological information****11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**Metabolism, toxicokinetics, mechanism of action and other information

Information not available

Information on likely routes of exposure**2-(2-BUTOXYETHOXY)ETHANOL**

WORKERS: inhalation; contact with the skin.

Delayed and immediate effects as well as chronic effects from short and long-term exposure**2-(2-BUTOXYETHOXY)ETHANOL**

May be absorbed by inhalation, ingestion and skin contact; is irritating for the skin and especially for the eyes. May cause damage to the spleen. At room temperature the danger of inhalation is unlikely, due to the low vapour pressure of the substance.

Interactive effects

Information not available

ACUTE TOXICITY

ATE (Inhalation) of the mixture:

Not classified (no significant component)

ATE (Oral) of the mixture:

Not classified (no significant component)

ATE (Dermal) of the mixture:

Not classified (no significant component)

**2-(2-BUTOXYETHOXY)ETHANOL**

LD50 (Dermal):

2700 mg/kg Rabbit

LD50 (Oral):

3384 mg/kg Rat

**1,2-BENZISOTHIAZOL-3(2H)-ONE**

LD50 (Dermal):

> 2000 mg/kg

LD50 (Oral):

490 mg/kg

Method: equivalent or similar to OECD 401

Reliability (Klimisch score): 1

Species: rat (Wistar; male/female)

Routes of exposure: oral

Results: LD50 = 490 mg/kg. The substance is classified as acute oral toxicant Cat. 4 (Harmonized classification, CLP Reg., Annex VI)

Method: OECD 402

Reliability (Klimisch score): 2

Species: rat (CD; male/female)

Routes of exposure: dermal

LD50 results: > 2000 mg/kg.



**SECTION 11. Toxicological information ... / >>**

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

LD50 (Dermal): 87,12 mg/kg Coniglio maschio C(M)IT/MIT (14%) (OECD 402)- opinion RAC

LD50 (Oral): 200 mg/kg

LC50 (Inhalation mists/powders): 0,33 mg/l/4h

Method: OECD 423

Reliability (Klimisch score): 1

Species: Rat (Wistar; female)

Routes of exposure: oral

Results: LD50 200 mg/kg

Method: OECD 403

Reliability (Klimisch score): 1

Species: rat (CrI:CD BR; male/female)

Routes of exposure: inhalation

Results: LC50 0.33 mg/l/4h (aerosol)

Reliability (Klimisch score): 2

Species: rabbit (Albino)

Routes of exposure: dermal

Results: LD50 87.12 mg/kg (C(M)IT/MIT 14%)

Bibliographical reference: Craig 1993

**SKIN CORROSION / IRRITATION**

Does not meet the classification criteria for this hazard class

1,2-BENZISOTHIAZOL-3(2H)-ONE

The substance is classified as a skin irritant Cat. 2 (Harmonised classification, CLP Reg., Annex VI).

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Method: OECD 404

Reliability (Klimisch score): 1

Species: rabbit (New Zealand White)

Routes of exposure: dermal

Results: corrosive to the skin. SCL (specific concentration limit  $C \geq 0.6\%$  - Reg. (EU) 2018/1480)

**SERIOUS EYE DAMAGE / IRRITATION**

Does not meet the classification criteria for this hazard class

1,2-BENZISOTHIAZOL-3(2H)-ONE

Method: Equivalent or similar to EPA OPP 81-4

Reliability (Klimisch score): 1

Species: rabbit (New Zealand White)

Routes of exposure: ocular

Results: causes serious eye damage (Harmonised classification, CLP Reg., Annex VI).

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Method: OECD 405

Reliability (Klimisch score): 1

Species: rabbit (New Zealand White)

Routes of exposure: ocular

Results: corrosive to the eyes

SCL (specific concentration limit - Reg. (EU) 2018/1480)

H318 cat.1  $C \geq 0.6\%$

H319 cat. 2  $0.06\% \leq C < 0.6\%$

**RESPIRATORY OR SKIN SENSITISATION**

May produce an allergic reaction.

Contains:



**SECTION 11. Toxicological information ... / >>**

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)  
1,2-BENZISOTHIAZOL-3(2H)-ONE

**Skin sensitization**

1,2-BENZISOTHIAZOL-3(2H)-ONE

Method: Equivalent or similar to EPA OPP 81-6

Reliability (Klimisch score): 1

Species: Guinea pig (Dunkin-Hartley; female)

Routes of exposure: dermal

Results: skin sensitizer (Harmonized classification, CLP Reg., Annex VI).

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Bibliographic reference: National Institutes of Health Publication N° 99-449, Appendix J, 1999

Local lymph node testing. (LLNA)

Reliability (Klimisch score): 1

Species: mouse (CBA/J; female)

Results: skin sensitizer, cat 1A

SCL (specific concentration limit) (Reg. (EU) 2018/1480):  $C \geq 0.0015 \%$

**GERM CELL MUTAGENICITY**

Does not meet the classification criteria for this hazard class

1,2-BENZISOTHIAZOL-3(2H)-ONE

Method: OECD 476 - In vitro test

Reliability (Klimisch score): 1

Species: L5178Y murine lymphoma cells

Results: negative with no metabolic activation

Method: OECD 486

Reliability (Klimisch score): 1

Species: Rat (Han Wistar; male)

Routes of exposure: oral

Results: negative.

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Method: OECD 482 - In vitro test

Reliability (Klimisch score): 1

Results: Negative

Method: OECD 475 - In vivo test

Reliability (Klimisch score): 1

Routes of exposure: oral

Species: mouse (CD-1)

Results: Negative

**CARCINOGENICITY**

Does not meet the classification criteria for this hazard class

1,2-BENZISOTHIAZOL-3(2H)-ONE

Based on available data, the substance does not have carcinogenic effects and is not classified under the relevant CLP hazard class of carcinogenicity.

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Based on available data, the substance does not have carcinogenic effects and is not classified under the CLP hazard class of carcinogenicity.

**REPRODUCTIVE TOXICITY**

Does not meet the classification criteria for this hazard class

**SECTION 11. Toxicological information ... / >>****1,2-BENZISOTHIAZOL-3(2H)-ONE**

Method: EPA OPPTS 870.3800

Reliability (Klimisch score): 1

Species: rat (Wl(Glx/BRL/Han)BR; female)

Routes of exposure: oral

Results: negative. NOAEL (P0) = 112 mg/kg body weight/day; NOAEL (F1) = 56.6 mg/kg body weight/day; NOAEL (F2a) = 56.6 mg/kg body weight/day.

Adverse effects on sexual function and fertility

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Method: OECD 416

Reliability (Klimisch score): 1

Species: rat CrI:CD BR

Routes of exposure: oral

Results: Negative. NOAEL = 300 ppm.

Adverse effects on development of the offspring

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Method: EPA OPP 83-3

Reliability (Klimisch score): 1

Species: rat (Sprague-Dawley)

Routes of exposure: oral

Results: LOAEL = 28 mg/kg. No signs of teratogenicity or embryotoxicity.

STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

**1,2-BENZISOTHIAZOL-3(2H)-ONE**

Based on available data, the substance does not present specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Based on available data, the substance does not present specific target organ toxicity effects for single exposure and is not classified under the relevant CLP hazard class.

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

**1,2-BENZISOTHIAZOL-3(2H)-ONE**

Method: EPA OPP 82-1

Reliability (Klimisch score): 1

Species: rat (Alpk:AfSD Male/Female)

Routes of exposure: oral

Results: negative. NOAEL = 69 mg/kg body weight/day.

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Method: OECD 409

Reliability (Klimisch score): 1

Species: dog (beagle)

Routes of exposure: oral

Results: Negative. NOAEL = 22 mg/kg

Method: OECD 413

Reliability (Klimisch score): 1

Species: mouse (CrI:CD(SD)BR)

Routes of exposure: inhalation (aerosol)

Results: Negative. NOAEL = 0.34 mg/m<sup>3</sup>

Method: EPA OPP 82-3

Reliability (Klimisch score): 1

Species: rat (Sprague-Dawley)

Routes of exposure: dermal

## SECTION 11. Toxicological information ... / >>

Results: Negative. NOAEL (systemic toxicity): 18.75 mg/kg body weight/day. NOAEL (local irritation): 0.75 mg/kg body weight/day

### ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

#### 1,2-BENZISOTHIAZOL-3(2H)-ONE

There are no data available on the danger in case of aspiration.

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

There are no data available on the danger in case of aspiration.

### 11.2. Information on other hazards

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with human health effects under evaluation.

## SECTION 12. Ecological information

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

### 12.1. Toxicity

#### 1,2-BENZISOTHIAZOL-3(2H)-ONE

LC50 - for Fish

2,15 mg/l/96h Oncorhynchus mykiss (OECD 203)

EC50 - for Crustacea

2,9 mg/l/48h Daphnia Magna (OECD 202)

EC50 - for Algae / Aquatic Plants

0,07 mg/l/72h Pseudokirchneriella subcapitata (OECD 201)

Chronic NOEC for Algae / Aquatic Plants

0,0403 mg/l (72h) Selenastrum capricornutum (OECD 201)

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

LC50 - for Fish

0,19 mg/l/96h Oncorhynchus mykiss (EPA OPP 72-1)

EC50 - for Crustacea

0,16 mg/l/48h Daphnia magna (EPA OPP 72-2)

EC50 - for Algae / Aquatic Plants

0,0052 mg/l/48h Skeletonema costatum (OECD 201 - US EPA OPPTS 850.5400)

Chronic NOEC for Fish

> 0,0464 mg/l/35 giorni Danio rerio (OECD 210)

Chronic NOEC for Algae / Aquatic Plants

0,00049 mg/l/48 h Skeletonema costatum (OECD 201 - US EPA OPPTS 850.5400)

### 12.2. Persistence and degradability

#### 2-(2-BUTOXYETHOXY)ETHANOL

Solubility in water

1000 - 10000 mg/l

Rapidly degradable

#### 1,2-BENZISOTHIAZOL-3(2H)-ONE

NOT rapidly degradable

62% in 4 giorni (OECD 301 C)

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

NOT rapidly degradable

NOT rapidly degradable (OECD 301B)

### 12.3. Bioaccumulative potential

#### 2-(2-BUTOXYETHOXY)ETHANOL

Partition coefficient: n-octanol/water

1

#### 1,2-BENZISOTHIAZOL-3(2H)-ONE

Partition coefficient: n-octanol/water

0,7 T = 20 °C, pH = 7 (EU Method A.8 - HPLC)

BCF

6,95 OECD 305

MIXTURE OF: 5-CHLORO-2-METHYL-2H- ISOTHIAZOL-3-ONE [N. CE 247-500-7]; 2-METHYL-2H-ISOTHIAZOL-3-ONE [No. CE 220-239-6] (3:1)

Partition coefficient: n-octanol/water

0,75 C(M)IT: 0.75 MIT: -0.71 (OECD 107)

BCF

54 Lepomis macrochirus (OECD 305 E)

**SECTION 12. Ecological information ... / >>****12.4. Mobility in soil**

Information not available

**12.5. Results of PBT and vPvB assessment**

On the basis of available data, the product does not contain any PBT or vPvB in percentage  $\geq$  than 0,1%.

**12.6. Endocrine disrupting properties**

Based on the available data, the product does not contain substances listed in the main European lists of potential or suspected endocrine disruptors with environmental effects under evaluation.

**12.7. Other adverse effects**

Information not available

**SECTION 13. Disposal considerations****13.1. Waste treatment methods**

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.  
Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.  
The management of waste arising from the use or dispersal of this product must be organised in accordance with occupational safety regulations. See section 8 for possible need for PPE.  
**CONTAMINATED PACKAGING**  
Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

**SECTION 14. Transport information**

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

**14.1. UN number or ID number**

not applicable

**14.2. UN proper shipping name**

not applicable

**14.3. Transport hazard class(es)**

not applicable

**14.4. Packing group**

not applicable

**14.5. Environmental hazards**

not applicable

**14.6. Special precautions for user**

not applicable

**14.7. Maritime transport in bulk according to IMO instruments**

Information not relevant

**SECTION 15. Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

Seveso Category - Directive 2012/18/EU:

None

## SECTION 15. Regulatory information ... / >>

Restrictions relating to the product or contained substances pursuant to Annex XVII to EC Regulation 1907/2006

### Contained substance

Point 75

Regulation (EU) 2019/1148 - on the marketing and use of explosives precursors  
not applicable

### Substances in Candidate List (Art. 59 REACH)

On the basis of available data, the product does not contain any SVHC in percentage  $\geq$  than 0,1%.

### Substances subject to authorisation (Annex XIV REACH)

None

### Substances subject to exportation reporting pursuant to Regulation (EU) 649/2012:

None

### Substances subject to the Rotterdam Convention:

None

### Substances subject to the Stockholm Convention:

None

### Healthcare controls

Information not available

## 15.2. Chemical safety assessment

A chemical safety assessment has not been performed for the preparation/for the substances indicated in section 3.

## SECTION 16. Other information

Text of hazard (H) indications mentioned in section 2-3 of the sheet:

|                          |                                                                    |
|--------------------------|--------------------------------------------------------------------|
| <b>Acute Tox. 2</b>      | Acute toxicity, category 2                                         |
| <b>Acute Tox. 3</b>      | Acute toxicity, category 3                                         |
| <b>Acute Tox. 4</b>      | Acute toxicity, category 4                                         |
| <b>Skin Corr. 1C</b>     | Skin corrosion, category 1C                                        |
| <b>Eye Dam. 1</b>        | Serious eye damage, category 1                                     |
| <b>Eye Irrit. 2</b>      | Eye irritation, category 2                                         |
| <b>Skin Irrit. 2</b>     | Skin irritation, category 2                                        |
| <b>Skin Sens. 1</b>      | Skin sensitization, category 1                                     |
| <b>Skin Sens. 1A</b>     | Skin sensitization, category 1A                                    |
| <b>Aquatic Acute 1</b>   | Hazardous to the aquatic environment, acute toxicity, category 1   |
| <b>Aquatic Chronic 1</b> | Hazardous to the aquatic environment, chronic toxicity, category 1 |
| <b>Aquatic Chronic 2</b> | Hazardous to the aquatic environment, chronic toxicity, category 2 |
| <b>H310</b>              | Fatal in contact with skin.                                        |
| <b>H330</b>              | Fatal if inhaled.                                                  |
| <b>H301</b>              | Toxic if swallowed.                                                |
| <b>H302</b>              | Harmful if swallowed.                                              |
| <b>H314</b>              | Causes severe skin burns and eye damage.                           |
| <b>H318</b>              | Causes serious eye damage.                                         |
| <b>H319</b>              | Causes serious eye irritation.                                     |
| <b>H315</b>              | Causes skin irritation.                                            |
| <b>H317</b>              | May cause an allergic skin reaction.                               |
| <b>H400</b>              | Very toxic to aquatic life.                                        |
| <b>H410</b>              | Very toxic to aquatic life with long lasting effects.              |
| <b>H411</b>              | Toxic to aquatic life with long lasting effects.                   |
| <b>EUH071</b>            | Corrosive to the respiratory tract.                                |
| <b>EUH210</b>            | Safety data sheet available on request.                            |

### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE: Identifier in ESIS (European archive of existing substances)
- CLP: Regulation (EC) 1272/2008
- DNEL: Derived No Effect Level

**SECTION 16. Other information ... / >>**

- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent, bioaccumulative and toxic
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PMT: Persistent, mobile and toxic
- PNEC: Predicted no effect concentration
- REACH: Regulation (EC) 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA: Time-weighted average exposure limit
- TWA STEL: Short-term exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very persistent and very bioaccumulative
- vPvM: Very persistent and very mobile
- WGK: Water hazard classes (German).

**GENERAL BIBLIOGRAPHY**

1. Regulation (EC) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 2020/878 (II Annex of REACH Regulation)
4. Regulation (EC) 790/2009 (I Atp. CLP) of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament
11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
12. Regulation (EU) 2016/1179 (IX Atp. CLP)
13. Regulation (EU) 2017/776 (X Atp. CLP)
14. Regulation (EU) 2018/669 (XI Atp. CLP)
15. Regulation (EU) 2019/521 (XII Atp. CLP)
16. Delegated Regulation (UE) 2018/1480 (XIII Atp. CLP)
17. Regulation (EU) 2019/1148
18. Delegated Regulation (UE) 2020/217 (XIV Atp. CLP)
19. Delegated Regulation (UE) 2020/1182 (XV Atp. CLP)
20. Delegated Regulation (UE) 2021/643 (XVI Atp. CLP)
21. Delegated Regulation (UE) 2021/849 (XVII Atp. CLP)
22. Delegated Regulation (UE) 2022/692 (XVIII Atp. CLP)
23. Delegated Regulation (UE) 2023/707
24. Delegated Regulation (UE) 2023/1434 (XIX Atp. CLP)
25. Delegated Regulation (UE) 2023/1435 (XX Atp. CLP)
26. Delegated Regulation (UE) 2024/197 (XXI Atp. CLP)
27. Delegated Regulation (UE) 2024/2564 (XXII Atp. CLP)

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- IFA GESTIS website
- ECHA website
- Database of SDS models for chemicals - Ministry of Health and ISS (Istituto Superiore di Sanità) - Italy

**Note for users:**

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.  
Provide appointed staff with adequate training on how to use chemical products.

#### CALCULATION METHODS FOR CLASSIFICATION

Chemical and physical hazards: Product classification derives from criteria established by the CLP Regulation, Annex I, Part 2. The data for evaluation of chemical-physical properties are reported in section 9.

Health hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 3, unless determined otherwise in Section 11.

Environmental hazards: Product classification is based on calculation methods as per Annex I of CLP, Part 4, unless determined otherwise in Section 12.