

## Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878 and to Annex II to UK REACH

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

#### 1.1. Product identifier

Code: CRN MAM 277  
Product name: CRN AIR TK 5

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

Intended use: DEARATOR

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

Name: CRN BOYA KIMYA SAN. TIC. LTD. STI.  
Full address: ULUDAĞ ORGANİZE SANAYİ BÖLGESİ KALE MAH.KILIÇLAR CAD. NO:10 KESTEL  
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e-mail address of the competent person responsible for the Safety Data Sheet: info@crnkimya.com.tr

#### 1.4. Emergency telephone number

For urgent inquiries refer to: +90 224 372 50 23

### SECTION 2. Hazards identification

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

The product is classified as hazardous pursuant to the provisions set forth in (EC) Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of (EU) Regulation 2020/878.

Any additional information concerning the risks for health and/or the environment are given in sections 11 and 12 of this sheet.

##### Hazard classification and indication:

|                                                              |      |                                    |
|--------------------------------------------------------------|------|------------------------------------|
| Acute toxicity, category 4                                   | H332 | Harmful if inhaled.                |
| Serious eye damage, category 1                               | H318 | Causes serious eye damage.         |
| Skin irritation, category 2                                  | H315 | Causes skin irritation.            |
| Specific target organ toxicity - single exposure, category 3 | H336 | May cause drowsiness or dizziness. |

#### 2.2. Label elements

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

##### Hazard pictograms:



Signal words: Danger

##### Hazard statements:

|      |                                    |
|------|------------------------------------|
| H332 | Harmful if inhaled.                |
| H318 | Causes serious eye damage.         |
| H315 | Causes skin irritation.            |
| H336 | May cause drowsiness or dizziness. |

##### Precautionary statements:

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to

**SECTION 2. Hazards identification ... / >>**

|                  |                                                                  |
|------------------|------------------------------------------------------------------|
| <b>P280</b>      | do. Continue rinsing.                                            |
| <b>P310</b>      | Wear protective gloves / eye protection / face protection.       |
| <b>P261</b>      | Immediately call a POISON CENTER / doctor / . . .                |
| <b>P403+P233</b> | Avoid breathing dust / fume / gas / mist / vapours / spray.      |
| <b>P264</b>      | Store in a well-ventilated place. Keep container tightly closed. |
|                  | Wash . . . thoroughly after handling.                            |

**Contains:** ISOTRIDECYLALCOHOL 3 EO  
 2-PROPYLHEPTANOL,ETHOXYLATED  
 2 ethylhexanol

**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 ethylhexanol</b>               |                    |                                                                                 |
| INDEX                               | $58 \leq x < 62$   | <b>Acute Tox. 4 H332, Eye Irrit. 2 H319, Skin Irrit. 2 H315, STOT SE 3 H336</b> |
| EC 203-234-3                        |                    | <b>STA Inhalation mists/powders: 1.5 mg/l, STA Inhalation vapours: 11 mg/l</b>  |
| CAS 104-76-7                        |                    |                                                                                 |
| <b>ETHANOL</b>                      |                    |                                                                                 |
| INDEX                               | $24 \leq x < 25.5$ | <b>Flam. Liq. 2 H225</b>                                                        |
| EC 603-002-00-5                     |                    |                                                                                 |
| EC 200-578-6                        |                    |                                                                                 |
| CAS 64-17-5                         |                    |                                                                                 |
| <b>ISOTRIDECYLALCOHOL 3 EO</b>      |                    |                                                                                 |
| INDEX                               | $10.5 \leq x < 12$ | <b>Eye Dam. 1 H318</b>                                                          |
| EC 934-965-2                        |                    |                                                                                 |
| CAS 69011-36-5                      |                    |                                                                                 |
| <b>2-PROPYLHEPTANOL,ETHOXYLATED</b> |                    |                                                                                 |
| INDEX                               | $5 \leq x < 6$     | <b>Acute Tox. 4 H302, Eye Dam. 1 H318</b>                                       |
| EC 605-233-7                        |                    | <b>STA Oral: 500 mg/kg</b>                                                      |
| CAS 160875-66-1                     |                    |                                                                                 |
| <b>2-(2-BUTOXYETHOXY)ETHANOL</b>    |                    |                                                                                 |
| INDEX                               | $2 \leq x < 2.5$   | <b>Eye Irrit. 2 H319</b>                                                        |
| EC 603-096-00-8                     |                    |                                                                                 |
| EC 203-961-6                        |                    |                                                                                 |
| CAS 112-34-5                        |                    |                                                                                 |

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**

**EYES:** Remove contact lenses, if present. Wash immediately with plenty of water for at least 15 minutes, opening the eyelids fully. If problem persists, seek medical advice.

**SKIN:** Remove contaminated clothing. Rinse skin with a shower immediately. Wash contaminated clothing before using it again.

**INHALATION:** Remove to open air. If the subject stops breathing, administer artificial respiration. Get medical advice/attention immediately.

**INGESTION:** Get medical advice/attention immediately. Do not induce vomiting. Do not administer anything not explicitly authorised by a doctor.

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

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

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

Information not available

## SECTION 5. Firefighting measures

### 5.1. Extinguishing media

#### SUITABLE EXTINGUISHING EQUIPMENT

Extinguishing substances are: carbon dioxide, foam, chemical powder. For product loss or leakage that has not caught fire, water spray can be used to disperse flammable vapours and protect those trying to stem the leak.

#### UNSUITABLE EXTINGUISHING EQUIPMENT

Do not use jets of water. Water is not effective for putting out fires but can be used to cool containers exposed to flames to prevent explosions.

### 5.2. Special hazards arising from the substance or mixture

#### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Excess pressure may form in containers exposed to fire at a risk of explosion. 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

Keep away from heat, sparks and naked flames; do not smoke or use matches or lighters. Without adequate ventilation, vapours may accumulate at ground level and, if ignited, catch fire even at a distance, with the danger of backfire. Avoid bunching of electrostatic charges. When performing transfer operations involving large containers, connect to an earthing system and wear antistatic footwear. Vigorous stirring and flow through the tubes and equipment may cause the formation and accumulation of electrostatic charges. In order to avoid the risk of fires and explosions, never use compressed air when handling. Open containers with caution as they may be pressurised. Do not eat, drink or smoke during use. Avoid leakage of the product into the environment.

### 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. Store in a cool and well ventilated place, keep far away from sources of heat, naked flames and sparks and other sources of ignition. Keep containers away from any incompatible materials, see section 10 for details.

### 7.3. Specific end use(s)

Information not available

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

|     |                |                                                                                                                                                                                                                                                                                            |
|-----|----------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| TUR | Türkiye        | Kimyasal Maddelerle Çalışmalarda Sağlık ve Güvenlik Önlemleri Hakkında Yönetmelik 12.08.2013 / 28733                                                                                                                                                                                       |
| 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. |
|     | TLV-ACGIH      | ACGIH 2021                                                                                                                                                                                                                                                                                 |

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

##### Threshold Limit Value

| Type      | Country | TWA/8h            |     | STEL/15min        |     | Remarks / Observations |
|-----------|---------|-------------------|-----|-------------------|-----|------------------------|
|           |         | mg/m <sup>3</sup> | ppm | mg/m <sup>3</sup> | ppm |                        |
| ESD       | TUR     | 67.5              | 10  | 101.2             | 15  |                        |
| WEL       | GBR     | 67.5              | 10  | 101.2             | 15  |                        |
| OEL       | EU      | 67.5              | 10  | 101.2             | 15  |                        |
| TLV-ACGIH |         | 66                | 10  |                   |     | INHAL                  |

#### ETHANOL

##### Threshold Limit Value

| Type      | Country | TWA/8h            |      | STEL/15min        |      | Remarks / Observations |
|-----------|---------|-------------------|------|-------------------|------|------------------------|
|           |         | mg/m <sup>3</sup> | ppm  | mg/m <sup>3</sup> | ppm  |                        |
| WEL       | GBR     | 1920              | 1000 |                   |      |                        |
| TLV-ACGIH |         |                   |      | 1884              | 1000 |                        |

Legend:

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

### 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.

When choosing personal protective equipment, ask your chemical substance supplier for advice.

Personal protective equipment must be CE marked, showing that it complies with applicable standards.

Provide an emergency shower with face and eye wash station.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

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 II 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 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, 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). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.) combined filters are required. 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. The protection provided by masks is in any case limited.

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                             | Clear liquid   |             |
| Colour                                 | COLORLESS      |             |
| Odour                                  | ALCOHOL-LIKE   |             |
| Melting point / freezing point         | not available  |             |
| Initial boiling point                  | not available  |             |
| Flammability                           | not available  |             |
| Lower explosive limit                  | not available  |             |
| Upper explosive limit                  | not available  |             |
| Flash point                            | not available  |             |
| Auto-ignition temperature              | not available  |             |
| Decomposition temperature              | not available  |             |
| pH                                     | 4,5 - 5,5      |             |
| Kinematic viscosity                    | not available  |             |
| Solubility                             | not available  |             |
| Partition coefficient: n-octanol/water | not available  |             |
| Vapour pressure                        | not available  |             |
| Density and/or relative density        | 0,90 -0,96     | g/cm3       |
| 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**

The vapours may also form explosive mixtures with the air.

**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.

**ETHANOL**

Risk of explosion on contact with: alkaline metals, alkaline oxides, calcium hypochlorite, sulphur monofluoride, acetic anhydride, acids, concentrated hydrogen peroxide, perchlorates, perchloric acid, perchloronitrile, mercury nitrate, nitric acid, silver, silver nitrate, ammonia, silver oxide, ammonia, strong oxidising agents, nitrogen dioxide. May react dangerously with: bromoacetylene, chlorine acetylene, bromine trifluoride, chromium trioxide, chromyl chloride, fluorine, potassium tert-butoxide, lithium hydride, phosphorus trioxide, black platinum, zirconium (IV) chloride, zirconium (IV) iodide. Forms explosive mixtures with: air.

**10.4. Conditions to avoid**

Avoid overheating. Avoid bunching of electrostatic charges. Avoid all sources of ignition.

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

Avoid exposure to: air.

**ETHANOL**

Avoid exposure to: sources of heat, naked flames.

**10.5. Incompatible materials**

**SECTION 10. Stability and reactivity ... / >>**
**2-(2-BUTOXYETHOXY)ETHANOL**

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

**10.6. Hazardous decomposition products**

In the event of thermal decomposition or fire, gases and vapours that are potentially dangerous to health may be released.

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

May develop: hydrogen.

**SECTION 11. Toxicological information**

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

**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 - mists / powders) of the mixture: | 2.42 mg/l                                 |
| ATE (Inhalation - vapours) of the mixture:         | 17.74 mg/l                                |
| ATE (Inhalation - gas) of the mixture:             | Acute Tox. 4                              |
| ATE (Oral) of the mixture:                         | >2000 mg/kg                               |
| 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    |

**ETHANOL**

|                            |                  |
|----------------------------|------------------|
| LD50 (Oral):               | > 5000 mg/kg Rat |
| LC50 (Inhalation vapours): | 117 mg/l/4h Rat  |

**2 ethylhexanol**

|                                 |                                                                                                                                         |
|---------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|
| STA (Inhalation mists/powders): | 1.5 mg/l estimate from table 3.1.2 of Annex I of the CLP<br>(figure used for calculation of the acute toxicity estimate of the mixture) |
| STA (Inhalation vapours):       | 11 mg/l estimate from table 3.1.2 of Annex I of the CLP<br>(figure used for calculation of the acute toxicity estimate of the mixture)  |

**2-PROPYLHEPTANOL,ETHOXYLATED**

|             |                                                                                                                                          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------|
| STA (Oral): | 500 mg/kg estimate from table 3.1.2 of Annex I of the CLP<br>(figure used for calculation of the acute toxicity estimate of the mixture) |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------|

SKIN CORROSION / IRRITATION

Causes skin irritation

SERIOUS EYE DAMAGE / IRRITATION

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

Causes serious eye damage

RESPIRATORY OR SKIN SENSITISATION

Does not meet the classification criteria for this hazard class

GERM CELL MUTAGENICITY

Does not meet the classification criteria for this hazard class

CARCINOGENICITY

Does not meet the classification criteria for this hazard class

REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

STOT - SINGLE EXPOSURE

May cause drowsiness or dizziness

STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

ASPIRATION HAZARD

Does not meet the classification criteria for this hazard class

**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**

Information not available

**12.2. Persistence and degradability**

## 2-(2-BUTOXYETHOXY)ETHANOL

Solubility in water 1000 - 10000 mg/l  
 Rapidly degradable

## ETHANOL

Solubility in water 1000 - 10000 mg/l  
 Rapidly degradable

**12.3. Bioaccumulative potential**

## 2-(2-BUTOXYETHOXY)ETHANOL

Partition coefficient: n-octanol/water 1

## ETHANOL

Partition coefficient: n-octanol/water -0.35

**12.4. Mobility in soil**

Information not available

**SECTION 12. Ecological information ... / >>****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. Product residues should be considered special hazardous waste. The hazard level of waste containing this product should be evaluated according to applicable regulations.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

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

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



**SECTION 15. Regulatory information ... / >>**

|                            |        |
|----------------------------|--------|
| <u>Product</u>             |        |
| Point                      | 3 - 40 |
| <u>Contained substance</u> |        |
| 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

Workers exposed to this chemical agent must not undergo health checks, provided that available risk-assessment data prove that the risks related to the workers' health and safety are modest and that the 98/24/EC directive is respected.

**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>Flam. Liq. 2</b>  | Flammable liquid, category 2                                 |
| <b>Acute Tox. 4</b>  | Acute toxicity, category 4                                   |
| <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>STOT SE 3</b>     | Specific target organ toxicity - single exposure, category 3 |
| <b>H225</b>          | Highly flammable liquid and vapour.                          |
| <b>H302</b>          | Harmful if swallowed.                                        |
| <b>H332</b>          | Harmful if inhaled.                                          |
| <b>H318</b>          | Causes serious eye damage.                                   |
| <b>H319</b>          | Causes serious eye irritation.                               |
| <b>H315</b>          | Causes skin irritation.                                      |
| <b>H336</b>          | May cause drowsiness or dizziness.                           |

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
- 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 as REACH Regulation

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

- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- 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 as for REACH Regulation
- 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)
- 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.

