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|  <b>ADRANOX<sup>®</sup></b><br>MEDICAL AND BIOSAFETY TECHNOLOGIES | <b>ADRANOX SRL</b>                      | Revision nr. 1   |
|   | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 1/16 |

## Safety Data Sheet

According to Annex II to REACH - Regulation 2020/878

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

#### 1.1. Product identifier

Code: ADMR100  
Product name: LYSONOX INSTRUMENTS DR

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

Intended use: Disinfectant for medical-surgical devices

| Identified Uses      | Industrial | Professional | Consumer |
|----------------------|------------|--------------|----------|
| Professional uses    | -          | ✓            | -        |
| Uses Advised Against |            |              |          |

Do not use for uses other than those indicated

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

Name: ADRANOX SRL  
Full address: Via Imre Nagy, 46  
District and Country: 46100 Mantova (MN)  
Italy  
Headquarters: Via I° Maggio, 29 – 46051 San Giorgio Bigarello (MN)  
Tel. +39 0376 405362  
Fax +39 0376 446392

e-mail address of the competent person responsible for the Safety Data Sheet: [adranox@adranox.com](mailto:adranox@adranox.com)

#### 1.4. Emergency telephone number

For urgent inquiries refer to:  
National Poisons Information Centre  
Beaumont Hospital, Beaumont, Dublin 9., Ireland  
chemicalsinfo (at) beaumont.ie  
<https://www.poisons.ie/>


### 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:

|  |      |  |
|--|------|--|
| Skin corrosion, category 1   | H314 | Causes severe skin burns and eye damage.         |
| Serious eye damage, category 1                                     | H318 | Causes serious eye damage.                       |
| Hazardous to the aquatic environment, chronic toxicity, category 2 | H411 | Toxic to aquatic life with long lasting effects. |

|  |   |  |
|--|---|--|
|  | <b>ADRANOX SRL</b>                      | Revision nr. 1<br><br>Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 2/16 |
|  | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> |  |

## 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:

**H314**                      Causes severe skin burns and eye damage.  
**H411**                      Toxic to aquatic life with long lasting effects.

Precautionary statements:

**P260**                      Do not breathe dust / fume / gas / mist / vapours / spray.  
**P305+P351+P338**      IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
**P303+P361+P353**      IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
**P280**                      Wear protective gloves/ protective clothing / eye protection / face protection.  
**P310**                      Immediately call a POISON CENTER / doctor / . . .  
**P264**                      Wash . . . thoroughly after handling.

**Contains:**                      Propionato di N,N-didecil-N-metil-poli(ossietil)ammonio  
N-(3-amminopropil)-Ndodecilpropan-1,3-diammina

## 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 1272/2008 (CLP)   |
|---|-------------------------|--|
| <b>Propionato di N,N-didecil-N-metil-poli(ossietil)ammonio</b><br>CAS 94667-33-1<br><br>EC 619-057-3<br>INDEX -<br>REACH Reg. 01-2119950327-36- | <br><br>$1 \leq x < 10$ | Acute Tox. 4 H302, Skin Corr. 1 H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1<br>LD50 Oral: 1157 mg/kg |

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|   | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 3/16 |

|   |            |   |
|---|------------|---|
| XXXX  |            |   |
| <b>isotridecanolo, etossilata (&gt;= 2.5 EO)</b>      |            |   |
| CAS 69011-36-5  | 1 ≤ x < 10 | Aquatic Chronic 3 H412  |
| EC 931-138-8  |            |   |
| INDEX -   |            |   |
| <b>Alcoli, C12-18,etossilati</b>                      |            |   |
| CAS 68213-23-0  | 1 ≤ x < 10 | Aquatic Acute 1 H400 M=1, Aquatic Chronic 3 H412  |
| EC 500-201-8  |            |   |
| INDEX -   |            |   |
| <b>ETHANEDIOL</b>                                     |            |   |
| CAS 107-21-1  | 1 ≤ x < 5  | Acute Tox. 4 H302, STOT RE 2 H373   |
| EC 203-473-3  |            | STA Oral: 500 mg/kg   |
| INDEX 603-027-00-1                                    |            |   |
| <b>N-(3-amminopropil)-Ndodecilpropan-1,3-diammina</b> |            |   |
| CAS 2372-82-9   | 1 ≤ x < 5  | Acute Tox. 3 H301, STOT RE 2 H373, Skin Corr. 1 H314, Eye Dam. 1 H318, Aquatic Acute 1 H400 M=1, Aquatic Chronic 1 H410 M=1 |
| EC 219-145-8  |            | LD50 Oral: 243,6 mg/kg  |
| INDEX -   |            |   |

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 30-60 minutes, opening the eyelids fully. Get medical advice/attention.

SKIN: Remove contaminated clothing. Rinse skin with a shower immediately. Get medical advice/attention.

INGESTION: Have the subject drink as much water as possible. Get medical advice/attention. Do not induce vomiting unless explicitly authorised by a doctor.

INHALATION: Get medical advice/attention immediately. Remove victim to fresh air, away from the accident scene. If the subject stops breathing, administer artificial respiration. Take suitable precautions for rescue workers.

### 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

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

#### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

|  |                                  |  |
|--|----------------------------------|--|
|  | ADRANOX SRL                      | Revision nr. 1   |
|  | ADMR100 - LYSONOX INSTRUMENTS DR | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 4/16 |

## 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.

### 7.3. Specific end use(s)

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|   | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 5/16 |

For professional use

## SECTION 8. Exposure controls/personal protection

### 8.1. Control parameters

Regulatory References:

|     |                |   |
|-----|----------------|---|
| DEU | Deutschland    | Technischen Regeln für Gefahrstoffe (TRGS 900) - Liste der Arbeitsplatzgrenzwerte und Kurzzeitwerte. MAK- und BAT-Werte-Liste 2020, Ständige Senatskommission zur Prüfung gesundheitsschädlicher Arbeitsstoffe, Mitteilung 56                                     |
| ESP | España         | Límites de exposición profesional para agentes químicos en España 2021  |
| FRA | France         | Valeurs limites d'exposition professionnelle aux agents chimiques en France. ED 984 - INRS  |
| ITA | Italia         | Decreto Legislativo 9 Aprile 2008, n.81   |
| GBR | United Kingdom | EH40/2005 Workplace exposure limits (Fourth Edition 2020)   |
| EU  | OEL EU         | 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 2020  |

#### Alcoli, C12-18,etossilati

Predicted no-effect concentration - PNEC

|  |       |       |
|--|-------|-------|
| Normal value in fresh water                  | 0,048 | mg/l  |
| Normal value in marine water                 | 0,048 | mg/l  |
| Normal value for fresh water sediment        | 292   | mg/kg |
| Normal value for marine water sediment       | 292   | mg/kg |
| Normal value for water, intermittent release | 0,004 | mg/l  |
| Normal value of STP microorganisms           | 10    | mg/l  |
| Normal value for the terrestrial compartment | 1     | mg/kg |

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

| Route of exposure | Effects on consumers |                |               | Chronic systemic | Effects on workers |                |               |                  |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local |                  | Acute local        | Acute systemic | Chronic local | Chronic systemic |
| Oral              |                      |                |               | 25 mg/kg bw/d    |                    |                |               |                  |
| Inhalation        |                      |                |               | 87 mg/m3         |                    |                |               | 294 mg/m3        |
| Skin              |                      |                |               | 1250 mg/kg bw/d  |                    |                |               | 2080 mg/kg bw/d  |


#### isotridecanolo, etossilata (>= 2.5 EO)

Predicted no-effect concentration - PNEC

|  |       |       |
|--|-------|-------|
| Normal value in fresh water                  | 0,074 | mg/l  |
| Normal value in marine water                 | 0,007 | mg/l  |
| Normal value for fresh water sediment        | 0,604 | mg/kg |
| Normal value for marine water sediment       | 0,06  | mg/kg |
| Normal value for water, intermittent release | 0,015 | mg/l  |
| Normal value of STP microorganisms           | 1,4   | mg/l  |
| Normal value for the terrestrial compartment | 0,1   | mg/kg |

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

| Route of exposure | Effects on consumers |                |               | Chronic systemic | Effects on workers |                |               |                  |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local |                  | Acute local        | Acute systemic | Chronic local | Chronic systemic |

|   |   |  |
|---|---|--|
|  <b>ADRANOX<sup>®</sup></b><br>MEDICAL AND BIOSAFETY TECHNOLOGIES | <b>ADRANOX SRL</b>                      | Revision nr. 1   |
|   | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 6/16 |

|            |                    |                    |
|------------|--------------------|--------------------|
| Oral       | 25 mg/kg<br>bw/d   |                    |
| Inhalation | 87 mg/m3           | 294 mg/m3          |
| Skin       | 1250 mg/kg<br>bw/d | 2080 mg/kg<br>bw/d |

#### Propionato di N,N-didecil-N-metil-poli(ossietil)ammonio

|  |       |       |
|--|-------|-------|
| Predicted no-effect concentration - PNEC     |       |       |
| Normal value in fresh water                  | 0,001 | mg/l  |
| Normal value in marine water                 | 5,3   | mg/l  |
| Normal value of STP microorganisms           | 0,118 | mg/l  |
| Normal value for the terrestrial compartment | 2,83  | mg/kg |

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

| Route of exposure | Effects on consumers |                |               | Chronic systemic   | Effects on workers |                |               | Chronic systemic  |
|-------------------|----------------------|----------------|---------------|--------------------|--------------------|----------------|---------------|-------------------|
|                   | Acute local          | Acute systemic | Chronic local |                    | Acute local        | Acute systemic | Chronic local |                   |
| Oral              |                      |                |               | 0,35 mg/kg<br>bw/d |                    |                |               |                   |
| Inhalation        |                      |                |               | 0,12 mg/m3         |                    |                |               | 0,5 mg/m3         |
| Skin              |                      |                |               | 0,35 mg/kg<br>bw/d |                    |                |               | 0,7 mg/kg<br>bw/d |

#### ETHANEDIOL

##### Threshold Limit Value


| Type      | Country | TWA/8h |     | STEL/15min |     | Remarks / Observations |
|-----------|---------|--------|-----|------------|-----|------------------------|
|           |         | mg/m3  | ppm | mg/m3      | ppm |                        |
| AGW       | DEU     | 26     | 10  | 52         | 20  | SKIN                   |
| MAK       | DEU     | 26     | 10  | 52         | 20  | SKIN                   |
| VLA       | ESP     | 52     | 20  | 104        | 40  | SKIN                   |
| VLEP      | FRA     | 52     | 20  | 104        | 40  | SKIN                   |
| VLEP      | ITA     | 52     | 20  | 104        | 40  | SKIN                   |
| WEL       | GBR     | 52     | 20  | 104        | 40  | SKIN                   |
| OEL       | EU      | 52     | 20  | 104        | 40  | SKIN                   |
| TLV-ACGIH |         |        | 25  |            | 50  |                        |
| TLV-ACGIH |         |        |     | 10         |     | INHAL                  |

#### Predicted no-effect concentration - PNEC

|  |       |       |
|--|-------|-------|
| Normal value in fresh water                  | 10    | mg/l  |
| Normal value in marine water                 | 1     | mg/l  |
| Normal value for fresh water sediment        | 37    | mg/kg |
| Normal value for marine water sediment       | 3,7   | mg/kg |
| Normal value for water, intermittent release | 10    | mg/l  |
| Normal value of STP microorganisms           | 199,5 | mg/l  |
| Normal value for the terrestrial compartment | 1,53  | mg/kg |

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

| Route of exposure | Effects on consumers |                |               | Chronic systemic | Effects on workers |                |               | Chronic systemic |
|-------------------|----------------------|----------------|---------------|------------------|--------------------|----------------|---------------|------------------|
|                   | Acute local          | Acute systemic | Chronic local |                  | Acute local        | Acute systemic | Chronic local |                  |
| Oral              |                      |                |               | 53 mg/kg         |                    |                |               |                  |

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|---|---|--|
|  <b>ADRANOX<sup>®</sup></b><br>MEDICAL AND BIOSAFETY TECHNOLOGIES | <b>ADRANOX SRL</b>                      | Revision nr. 1   |
|   | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 7/16 |

|            |         |                   |
|------------|---------|-------------------|
| bw/d       |         |                   |
| Inhalation | 7 mg/m3 | 35 mg/m3          |
| Skin       |         | 106 mg/kg<br>bw/d |

#### **N-(3-aminopropyl)-Ndodecilpropan-1,3-diammina**

|  |       |       |
|--|-------|-------|
| Predicted no-effect concentration - PNEC     |       |       |
| Normal value in fresh water                  | 0,001 | mg/l  |
| Normal value in marine water                 | 3,2   | mg/l  |
| Normal value for fresh water sediment        | 0,13  | mg/kg |
| Normal value of STP microorganisms           | 0,18  | mg/l  |
| Normal value for the terrestrial compartment | 45,34 | mg/kg |

| Health - Derived no-effect level - DNEL / DMEL |                      |                |               |                   |                    |                |               |                    |
|--|----------------------|----------------|---------------|-------------------|--------------------|----------------|---------------|--------------------|
| Route of exposure                              | Effects on consumers |                |               | Chronic systemic  | Effects on workers |                |               | Chronic systemic   |
|  | Acute local          | Acute systemic | Chronic local |                   | Acute local        | Acute systemic | Chronic local |                    |
| Inhalation                                     |                      |                |               | 0,118 mg/m3       |                    |                |               | 0,789 mg/m3        |
| Skin   |                      |                |               | 3,2 mg/kg<br>bw/d |                    |                |               | 8,96 mg/kg<br>bw/d |

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.

## **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 III 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**


Not necessary for normal use.

Although, we recommend to wear a hood visor or protective visor combined with airtight goggles (see standard EN 166).

### **RESPIRATORY PROTECTION**

Not required under normal conditions of use and with adequate ventilation.

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

|  |                                  |  |
|--|----------------------------------|--|
|  | ADRANOX SRL                      | Revision nr. 1   |
|  | ADMR100 - LYSONOX INSTRUMENTS DR | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 8/16 |

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.

Product residues must not be indiscriminately disposed of with waste water or by dumping in waterways.

## SECTION 9. Physical and chemical properties

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

| Properties                             | Value          | Information |
|--|----------------|-------------|
| Appearance                             | liquid         |             |
| Colour                                 | blue           |             |
| Odour                                  | characteristic |             |
| 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                                     | 7              |             |
| Kinematic viscosity                    | Not available  |             |
| Solubility                             | Not available  |             |
| Partition coefficient: n-octanol/water | Not available  |             |
| Vapour pressure                        | Not available  |             |
| Density and/or relative density        | 1,058          |             |
| 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



|  |   |  |
|--|---|--|
|  | <b>ADRANOX SRL</b>                      | Revision nr. 1<br><br>Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 9/16 |
|  | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> |  |

#### 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.

#### 10.4. Conditions to avoid

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

#### 10.5. Incompatible materials

Information not available

#### 10.6. Hazardous decomposition products

Information not available

### 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

ETHANEDIOL

WORKERS: inhalation; contact with the skin.

POPULATION: inhalation of ambient air; contact with the skin of products containing the substance.


##### Delayed and immediate effects as well as chronic effects from short and long-term exposure

ETHANEDIOL

Ingestion initially stimulates the central nervous system; later replaced by a phase of depression. There may be kidney damage, with anuria and uremia. Over-exposure symptoms are: vomiting, drowsiness, difficulty in breathing, convulsions. The lethal dose for humans is approx. 1.4 ml/kg.

##### Interactive effects

Information not available

|  |   |   |
|--|---|---|
|  | <b>ADRANOX SRL</b>                      | Revision nr. 1<br><br>Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 10/16 |
|  | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> |   |

#### ACUTE TOXICITY

|                                  |   |
|----------------------------------|---|
| ATE (Inhalation) of the mixture: | Not classified (no significant component) |
| ATE (Oral) of the mixture:       | >2000 mg/kg                               |
| ATE (Dermal) of the mixture:     | Not classified (no significant component) |

#### Alcoli, C12-18, etossilati

|                |                    |
|----------------|--------------------|
| LD50 (Oral):   | 1700 mg/kg Ratto   |
| LD50 (Dermal): | > 2000 mg/kg Ratto |

#### isotridecanolo, etossilata (>= 2.5 EO)

|                |                     |
|----------------|---------------------|
| LD50 (Oral):   | > 300 mg/kg Rat     |
| LD50 (Dermal): | > 2000 mg/kg Rabbit |

#### Propionato di N,N-didecil-N-metil-poli(ossietil)ammonio

|              |                |
|--------------|----------------|
| LD50 (Oral): | 1157 mg/kg Rat |
|--------------|----------------|

#### ETHANEDIOL

|                |  |
|----------------|--|
| LD50 (Oral):   | > 2000 mg/kg Rat   |
| 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) |
| LD50 (Dermal): | 9530 mg/kg Rabbit  |

#### N-(3-amminopropil)-Ndodecilpropan-1,3-diammina

|                |                 |
|----------------|-----------------|
| LD50 (Oral):   | 243,6 mg/kg Rat |
| LD50 (Dermal): | > 600 mg/kg Rat |

#### SKIN CORROSION / IRRITATION

Corrosive for the skin

#### N-(3-amminopropil)-Ndodecilpropan-1,3-diammina

Species: Rabbit  
Exposure time: 3 min  
Method: OECD Test Guideline 404  
Result: Causes severe burns.

#### SERIOUS EYE DAMAGE / IRRITATION

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

#### ETHANEDIOL

Available studies have shown no carcinogenic potential. In a carcinogenicity study lasting two years, carried out by the US National Toxicology Program (NTP), in which ethylene glycol was administered in the feed, "no evidence of carcinogenic activity" in male and female B6C3F1 mice was observed (NTP, 1993).

#### REPRODUCTIVE TOXICITY

Does not meet the classification criteria for this hazard class

|  |                                  |   |
|--|----------------------------------|---|
|  | ADRANOX SRL                      | Revision nr. 1  |
|  | ADMR100 - LYSONOX INSTRUMENTS DR | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 11/16 |

#### STOT - SINGLE EXPOSURE

Does not meet the classification criteria for this hazard class

#### STOT - REPEATED EXPOSURE

Does not meet the classification criteria for this hazard class

isotridecanolo, etossilata ( $\geq 2.5$  EO)

Rat; Oral; 2 years

NOAEL: 50 mg / kg (in reference to body weight and day)

Target organs: Heart, Liver, Kidney

Symptoms: Limited increase in body weight, Increase in relative organ weights.

group observation

(literature value)

#### 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

This product is dangerous for the environment and is toxic for aquatic organisms. In the long term, it have negative effects on acquatic environment.

#### 12.1. Toxicity

Alcoli, C12-18,etossilati

LC50 - for Fish 0,876 mg/l/96h

EC50 - for Crustacea 2,7 mg/l/48h

EC50 - for Algae / Aquatic Plants 0,41 mg/l/72h

Chronic NOEC for Fish 0,86 mg/l 30d

Chronic NOEC for Crustacea 0,469 mg/l 21d

Chronic NOEC for Algae / Aquatic Plants 0,714 mg/l 72h

isotridecanolo, etossilata ( $\geq 2.5$  EO)

LC50 - for Fish 2,5 mg/l/96h Danio rerio

EC50 - for Crustacea 1,5 mg/l/48h Daphnia magna

EC50 - for Algae / Aquatic Plants 2,5 mg/l/72h Scenedesmus subspicatus

Chronic NOEC for Fish 1,097 mg/l 30d Pimephales promelas

Chronic NOEC for Crustacea 0,74 mg/l 21d Daphnia magna

Chronic NOEC for Algae / Aquatic Plants 0,979 mg/l 72h Desmodesmus subspicatus


Propionato di N,N-didecil-N-metil-  
poli(ossietil)ammonio

LC50 - for Fish 0,89 mg/l/96h Cyprinus carpio (Carpa)

EC50 - for Crustacea 0,1 mg/l/48h Daphnia magna (Pulce d'acqua grande)

EC50 - for Algae / Aquatic Plants 0,34 mg/l/72h Scenedesmus subspicatus

Chronic NOEC for Crustacea 0,25 mg/l

|  |                                  |   |
|--|----------------------------------|---|
|  | ADRANOX SRL                      | Revision nr. 1  |
|  | ADMR100 - LYSONOX INSTRUMENTS DR | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 12/16 |

|  |   |
|--|---|
| Chronic NOEC for Algae / Aquatic Plants        | 0,044 mg/l  |
| N-(3-amminopropil)-Ndodecilpropan-1,3-diammina |   |
| LC50 - for Fish                                | 0,68 mg/l/96h Oncorhynchus mykiss (Trota iridea)                  |
| EC50 - for Crustacea                           | 0,073 mg/l/48h Daphnia magna (Pulce d'acqua grande)               |
| EC50 - for Algae / Aquatic Plants              | 0,054 mg/l/72h Pseudokirchneriella subcapitata (alghe cloroficee) |
| Chronic NOEC for Crustacea                     | 0,024 mg/l Daphnia magna (Pulce d'acqua grande)                   |
| Chronic NOEC for Algae / Aquatic Plants        | 0,0069 mg/l Desmodesmus subspicatus (alga verde)                  |

## 12.2. Persistence and degradability

Alcoli, C12-18,etossilati  
Rapidly degradable

isotridecanolo, etossilata ( $\geq 2.5$  EO)  
Rapidly degradable  
 $> 60\%$ ; 28 d; aerobico; OECD TG 301 B

ETHANEDIOL  
Solubility in water 1000 - 10000 mg/l  
Rapidly degradable

## 12.3. Bioaccumulative potential

Alcoli, C12-18,etossilati  
BCF  $< 500$

ETHANEDIOL  
Partition coefficient: n-octanol/water -1,36

## 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

|   |   |   |
|---|---|---|
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|   | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 13/16 |

### 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.

Waste transportation may be subject to ADR restrictions.

#### CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information

### 14.1. UN number or ID number

ADR / RID, IMDG, 1903  
IATA:

### 14.2. UN proper shipping name

ADR / RID: DISINFECTANT, LIQUID, CORROSIVE, N.O.S.  
IMDG: DISINFECTANT, LIQUID, CORROSIVE, N.O.S.  
IATA: DISINFECTANT, LIQUID, CORROSIVE, N.O.S.

### 14.3. Transport hazard class(es)

ADR / RID: Class: 8 Label: 8  
IMDG: Class: 8 Label: 8  
IATA: Class: 8 Label: 8



### 14.4. Packing group


ADR / RID, IMDG, III  
IATA:

### 14.5. Environmental hazards

ADR / RID: NO  
IMDG: NO  
IATA: NO

### 14.6. Special precautions for user

|            |                                       |                               |                                    |
|------------|---------------------------------------|-------------------------------|------------------------------------|
| ADR / RID: | HIN - Kemler: 80                      | Limited<br>Quantities: 5<br>L | Tunnel<br>restriction<br>code: (E) |
| IMDG:      | Special provision: -<br>EMS: F-A, S-B | Limited                       |                                    |

|  |                                  |   |
|--|----------------------------------|---|
|  | ADRANOX SRL                      | Revision nr. 1  |
|  | ADMR100 - LYSONOX INSTRUMENTS DR | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 14/16 |

|       |                    |                        |                             |
|-------|--------------------|------------------------|-----------------------------|
| IATA: | Cargo:             | Quantities: 5 L        | Packaging instructions: 856 |
|       | Pass.:             | Maximum quantity: 60 L | Packaging instructions: 852 |
|       | Special provision: | Maximum quantity: 5 L  |                             |
|       |                    | A3, A803               |                             |

#### 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/EC: E2

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

Product  
Point 3 - 40

Contained substance

Point 75

Regulation (EC) No. 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 (EC) Reg. 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

|  |                                  |   |
|--|----------------------------------|---|
|  | ADRANOX SRL                      | Revision nr. 1  |
|  | ADMR100 - LYSONOX INSTRUMENTS DR | Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 15/16 |

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. 3</b>      | Acute toxicity, category 3   |
| <b>Acute Tox. 4</b>      | Acute toxicity, category 4   |
| <b>STOT RE 2</b>         | Specific target organ toxicity - repeated exposure, category 2     |
| <b>Skin Corr. 1</b>      | Skin corrosion, category 1   |
| <b>Eye Dam. 1</b>        | Serious eye damage, category 1                                     |
| <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>Aquatic Chronic 3</b> | Hazardous to the aquatic environment, chronic toxicity, category 3 |
| <b>H301</b>              | Toxic if swallowed.  |
| <b>H302</b>              | Harmful if swallowed.  |
| <b>H373</b>              | May cause damage to organs through prolonged or repeated exposure. |
| <b>H314</b>              | Causes severe skin burns and eye damage.                           |
| <b>H318</b>              | Causes serious eye damage.   |
| <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>H412</b>              | Harmful to aquatic life with long lasting effects.                 |

### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- ATE: Acute Toxicity Estimate
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 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 NUMBER: 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
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 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

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|--|---|---|
|  | <b>ADRANOX SRL</b>                      | Revision nr. 1<br><br>Dated 20/12/2021<br>First compilation<br>Printed on 20/12/2021<br>Page n. 16/16 |
|  | <b>ADMR100 - LYSONOX INSTRUMENTS DR</b> |   |

- 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 (EU) 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
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  11. Regulation (EU) 2016/918 (VIII Atp. CLP) of the European Parliament
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  21. Delegated Regulation (UE) 2021/849 (XVII 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.