



according to Regulation (EC) No 1907/2006 (REACH)

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Hazard pictograms

Signal word:

Hazard and precautionary statements:

### **2.3 Other hazards**

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC)  $\geq 0.1\%$  published by the European Chemicals Agency (ECHA) under article 57 of REACH. The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006. ;

Adverse human health effects and symptoms:

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## SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2 Mixtures

Hazardous ingredients:

| Substance name                                       | CAS n°    | Index n° | EC n°     | Classification according Regulation (EC) No. 1272 [CLP] | Concentration (%) | SCL | M-factor |
|--|-----------|----------|-----------|---|-------------------|-----|----------|
| 4-(2-hydroxyethyl)piperazin-1-ylethanesulphonic acid | 7365-45-9 |          | 230-907-9 |   | < 3%              |     |          |

Additional information:

Full text of H- and EUH-phrases: see SECTION 16.

## SECTION 4 : FIRST AID MEASURES

### 4.1 Description of first aid measures

**General information:** Do not leave affected person unattended. ;

**Following inhalation:** In case of respiratory tract irritation, consult a physician. ;

**Following skin contact:** After contact with skin, wash immediately with water ;

**Following eye contact:** After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately. ;

**Following ingestion:** Do NOT induce vomiting. ;

**Self-protection of the first aider:**

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

Symptoms: No known symptoms to date. ;

Effects:

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

Notes for the doctor:

## SECTION 5 : FIREFIGHTING MEASURES

### 5.1 Extinguishing media:

**Suitable extinguishing media:** This product is not flammable. Use extinguishing agent suitable for type of surrounding fire ;

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

Hazardous combustion products: /

### 5.3 Advice for fire-fighters

Wear Protective clothing. ;

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## SECTION 6 : ACCIDENTAL RELEASE MEASURES

### 6.1 *Personal precautions, protective equipment and emergency procedures*

Emergency procedures: Provide adequate ventilation. ;

### 6.2 *Environmental precautions*

Do not allow to enter into surface water or drains. ;

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

For cleaning up: Suitable material for taking up: Absorbing material, organic ;

Other information:

### 6.4 *Reference to other sections*

Additional information:

## SECTION 7 : HANDLING AND STORAGE

### 7.1 *Precautions for safe handling*

Protective measures:

Advice on safe handling: Avoid contact with skin, eyes and clothes. ;

Fire preventions:

Do not eat, drink or smoke in areas where reagents are handled. ;

Advice on general occupational hygiene

Handle in accordance with good industrial hygiene and safety practice ;

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

Technical measures and storage conditions:

Requirements for storage rooms and vessels: Keep container tightly closed. ;

Hints on storage assembly:

Materials to avoid:

Further information on storage conditions:

### 7.3 *Specific end uses:*

Recommendations on specific end uses: Observe technical data sheet. ;

## SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1 *Control parameters*

Preliminary remark:

#### 8.1.1 Occupational exposure limits:

- France

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| Substance             | EC-No.    | CAS-No    | VLE (mg/m3) | VLE (ppm) | VME (mg/m3) | VME (ppm) |
|-----------------------|-----------|-----------|-------------|-----------|-------------|-----------|
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 |             |           |             |           |

- Spain

| Source :              | Limites de Exposicion Profesional para Agentes Quimicos en Espana<br>Instituto Nacional de Seguridad e Higiene en el Trabajo<br>June 2015 |           |                |              |                |              |
|-----------------------|---|-----------|----------------|--------------|----------------|--------------|
| Substance             | EC-No.  | CAS-No    | VLA-EC (mg/m3) | VLA-EC (ppm) | VLA-ED (mg/m3) | VLA-ED (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9   | 7365-45-9 |                |              |                |              |

- Germany

| Source :              | TRGS 900, June 2015, BAuA |           |             |           |  |
|-----------------------|---------------------------|-----------|-------------|-----------|--|
| Substance             | EC-No.                    | CAS-No    | AGW (mg/m3) | AGW (ppm) |  |
| 7365-45-9 / 230-907-9 | 230-907-9                 | 7365-45-9 |             |           |  |

- Italia
- Greece
- UK
- OSHA (USA)

| Source :              | Occupational Safety and Health Administration (OSHA) Permissible Exposure Limits (PELS) from 29 CFR 1910.1000 |           |  |  |  |  |
|-----------------------|---|-----------|--|--|--|--|
| Substance             | EC-No.  | CAS-No    | OSHA Permissible Exposure Limit (PEL) 8-hour TWA (ppm) | OSHA Permissible Exposure Limit (PEL) 8-hour TWA (mg/m3) | OSHA Permissible Exposure Limit (PEL) STEL (ppm) | OSHA Permissible Exposure Limit (PEL) STEL (mg/m3) |
| 7365-45-9 / 230-907-9 | 230-907-9   | 7365-45-9 |  |  |  |  |

### 8.1.2 Biological limit values (Germany):

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| Source :              | List of recommended health-based biological limit values (BLVs) and biological guidance values (BGVs), June 2014 |           |             |           |
|-----------------------|--|-----------|-------------|-----------|
| Substance             | EC-No.   | CAS-No    | BLV (mg/m3) | BLV (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9  | 7365-45-9 |             |           |

8.1.3 Exposure limits at intended use (Germany):

| Source :              | TRGS 903, November 2015, BAuA |           |             |           |
|-----------------------|-------------------------------|-----------|-------------|-----------|
| Substance             | EC-No.                        | CAS-No    | BGW (mg/m3) | BGW (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9                     | 7365-45-9 |             |           |

8.1.4 DNEL/PNEC-values:

- DNEL worker

| Source :              | GESTIS – substance database |           |   |   |  |   |  |   |  |
|-----------------------|-----------------------------|-----------|---|---|--|---|--|---|--|
| Substance             | EC-No.                      | CAS-No    | Acute – dermal, local effects (mg/kg/day) | Long-term – dermal, local effects (mg/kg/day) | Long-term – dermal, systemic effects (mg/kg/day) | Acute – inhalation, local effects (mg/m3) | Acute – inhalation, systemic effects (mg/m3) | Long-term – inhalation, local effects (mg/m3) | Long-term – inhalation, systemic effects (mg/m3) |
| 7365-45-9 / 230-907-9 | 230-907-9                   | 7365-45-9 |   |   |  |   | 23.5-23.5                                    |   |  |

- DNEL consumer

| Source :              | GESTIS – substance database |           |   |   |  |   |  |   |  |
|-----------------------|-----------------------------|-----------|---|---|--|---|--|---|--|
| Substance             | EC-No.                      | CAS-No    | Acute – dermal, local effects (mg/kg/day) | Long-term – dermal, local effects (mg/kg/day) | Long-term – dermal, systemic effects (mg/kg/day) | Acute – inhalation, local effects (mg/m3) | Acute – inhalation, systemic effects (mg/m3) | Long-term – inhalation, local effects (mg/m3) | Long-term – inhalation, systemic effects (mg/m3) |
| 7365-45-9 / 230-907-9 | 230-907-9                   | 7365-45-9 |   |   |  |   |  |   |  |

DNEL remark:

- PNEC

| Source :              | INERIS    |           |              |         |       |              |         |       |                      |         |       |               |         |              |        |         |       |
|-----------------------|-----------|-----------|--------------|---------|-------|--------------|---------|-------|----------------------|---------|-------|---------------|---------|--------------|--------|---------|-------|
| Substance             | EC-No.    | CAS-No    | PNEC AQUATIC |         |       |              |         |       |                      |         |       | PNEC Sediment |         |              |        |         |       |
|                       |           |           | freshwater   |         |       | marine water |         |       | intermittent release |         |       | freshwater    |         | marine water |        |         |       |
|                       |           |           | (mg/L)       | (mg/kg) | (ppm) | (mg/L)       | (mg/kg) | (ppm) | (mg/L)               | (mg/kg) | (ppm) | (mg/L)        | (mg/kg) | (ppm)        | (mg/L) | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 |              |         |       |              |         |       |                      |         |       |               |         |              |        |         |       |

|          |        |
|----------|--------|
| Source : | INERIS |
|----------|--------|

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| Substance             | EC-No.    | CAS-No    | Others    |         |       |                             |         |       |          |         |       |                          |         |       |
|-----------------------|-----------|-----------|-----------|---------|-------|-----------------------------|---------|-------|----------|---------|-------|--------------------------|---------|-------|
|                       |           |           | PNEC soil |         |       | PNEC sewage treatment plant |         |       | PNEC air |         |       | PNEC secondary poisoning |         |       |
|                       |           |           | (mg/L)    | (mg/kg) | (ppm) | (mg/L)                      | (mg/kg) | (ppm) | (mg/L)   | (mg/kg) | (ppm) | (mg/L)                   | (mg/kg) | (ppm) |
| 7365-45-9 / 230-907-9 | 230-907-9 | 7365-45-9 |           |         |       |                             |         |       |          |         |       |                          |         |       |

PNEC remark:

Control parameters remark:

## 8.2 Exposure controls

8.2.1 Appropriate engineering controls:

8.2.2 Personal protective equipment:

**Eye / Face protection:** Safety glasses with side-shields ;

**Skin protection:** Gloves ;

**Respiratory protection:** Ensure adequate ventilation ;

**Thermal hazards:**

8.2.3 Environmental exposure controls:

## SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

#### Appearance

|                       |          |
|-----------------------|----------|
| Physical state        | Liquid ; |
| Colour                | Blue ;   |
| Odour                 |          |
| Odour threshold (ppm) |          |

|   | Value                                 | Concentration (mol/L) | Method | Temperature (°C) | Pressure (kPa) | Remark |
|---|---------------------------------------|-----------------------|--------|------------------|----------------|--------|
| pH  | 7                                     |                       |        |                  |                |        |
| Melting point (°C)                                      |                                       |                       |        |                  |                |        |
| Freezing point (°C)                                     |                                       |                       |        |                  |                |        |
| Initial boiling point/boiling range (°C)                |                                       |                       |        |                  |                |        |
| Flash point (°C)  |                                       |                       |        |                  |                |        |
| Evaporation rate (kg/m <sup>2</sup> /h)                 |                                       |                       |        |                  |                |        |
| Flammability (type : ) (%)                              |                                       |                       |        |                  |                |        |
| Upper/lower flammability or explosive limits            | Upper explosive limit (%)             |                       |        |                  |                |        |
|   | Lower explosive limit (%)             |                       |        |                  |                |        |
| Vapour pressure (kPa)                                   |                                       |                       |        |                  |                |        |
| Vapour density (g/cm <sup>3</sup> )                     |                                       |                       |        |                  |                |        |
| Densities   | Density (g/cm <sup>3</sup> )          |                       |        |                  |                |        |
|   | Relative density (g/cm <sup>3</sup> ) |                       |        |                  |                |        |
|   | Bulk density (g/cm <sup>3</sup> )     |                       |        |                  |                |        |
|   | Critical density (g/cm <sup>3</sup> ) |                       |        |                  |                |        |
| Solubility (Type : ) (g/L)                              |                                       |                       |        |                  |                |        |
| Partition coefficient (log Pow) n-octanol/water at pH : |                                       |                       |        |                  |                |        |
| Auto-ignition temperature (°C)                          |                                       |                       |        |                  |                |        |

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|                                |   |  |  |  |  |  |
|--------------------------------|---|--|--|--|--|--|
| Decomposition temperature (°C) |   |  |  |  |  |  |
| Decomposition energy : kJ      |   |  |  |  |  |  |
| Viscosity                      | Viscosity, dynamic (poiseuille)           |  |  |  |  |  |
|                                | Viscosity, cinematic (cm <sup>2</sup> /s) |  |  |  |  |  |
| Oxidising properties           |   |  |  |  |  |  |
| Explosive properties           |   |  |  |  |  |  |

## 9.2 Other information:

No other relevant data available

## SECTION 10 : STABILITY AND REACTIVITY

**10.1 Reactivity** This material is considered to be non-reactive under normal use conditions. ;

**10.2 Chemical stability**

**10.3 Possibility of hazardous reactions**

**10.4 Conditions to avoid:**

**10.5 Incompatible materials:**

**10.6 Hazardous decomposition products:**

Does not decompose when used for intended uses. ;

## SECTION 11 : TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution

**11.1 Information on toxicological effects**

### Substances

- **Acute toxicity**

#### Animal data:

Acute oral toxicity:

Acute dermal toxicity:

Acute inhalative toxicity:

Practical experience / human evidence:

Assessment / Classification:

General Remark:

- **Skin corrosion/irritation**

#### Animal data:

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In-vitro skin test method:

In-vitro skin test result:

Assessment / Classification:

- **Eye damage/irritation**

Animal data:

In vitro eye test method:

In vitro eye test result:

Assessment / Classification:

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
  - Germ cell mutagenicity:

Animal data:

Assessment / Classification:

- Carcinogenicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

- Reproductive toxicity

Practical experience / human evidence:

Animal data:

Other information:

Assessment / Classification:

Overall assessment on CMR properties:

- **Specific target organ toxicity (single exposure)**
  - STOT SE 1 and 2

Animal data:

Other information:

- STOT SE 3

Practical experience / human evidence:

Other information:

Assessment / Classification:

- **Specific target organ toxicity (repeated exposure)**

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Practical experience / human evidence:

Animal data:

Assessment / Classification:

Other information

- **Aspiration hazard**

Practical experience / human evidence:

Experimental data: viscosity data: see SECTION 9.

Assessment / Classification:

Remark:

#### 11.1.1 Mixtures

No toxicological information is available for the mixture itself

## SECTION 12 : ECOLOGICAL INFORMATION

In case that test data regarding one endpoint/differentiation exist for the mixture itself, the classification is carried out according to the substance criteria (excluding biodegradation and bioaccumulation). If no test data exist, the criteria for mixture classification has to be used (calculation method) in this case the toxicological data of the ingredients are shown.

### 12.1 **Aquatic toxicity:**

Acute (short-term) fish toxicity

Chronic (long-term) fish toxicity

Acute (short-term) toxicity to crustacea

Chronic (long-term) toxicity to crustacea

Acute (short-term) toxicity to algae and cyanobacteria

Toxicity to microorganisms and other aquatic plants / organisms

Assessment / Classification:

### 12.2 **Persistence and degradability**

Biodegradation:

Abiotic Degradation:

Assessment / Classification:

### 12.3 **Bioaccumulative potential**

Bioconcentration factor (BCF):

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**12.4 Mobility in soil**

**12.5 Results of PBT and vPvB assessment**

**12.6 Other adverse effects:**

Additional ecotoxicological information:

**SECTION 13 : DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

Waste treatment options:Dispose of waste according to applicable legislation. ;

**SECTION 14 : TRANSPORT INFORMATION**

ADR/RID/AND/IMDG/IATA

|                            |  |
|----------------------------|--|
| UN No.                     |  |
| UN Proper shipping name    |  |
| Transport hazard class(es) |  |
| Hazard label(s)            |  |
| Packing group              |  |

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**

Land transport (ADR/RID)

|  |   |
|--|---|
| Classification code ADR:   | Special Provisions for ADR/RID:               |
| Limited quantities for ADR/RID:                                      | Excepted Quantities for ADR/RID:              |
| Packing Instructions for ADR/RID:                                    | Special packing provisions for ADR/RID:       |
| Mixed packing provisions:  |   |
| Portable tanks and bulk containers Instructions:                     |   |
| Portable tanks and bulk containers Special Provisions:               |   |
| ADR Tank Code:   | ADR Tank special provisions:                  |
| Vehicle for tank carriage:   |   |
| Special provisions for carriage Packages:                            |   |
| Special provisions for carriage Bulk:                                |   |
| Special provisions for carriage for loading, unloading and handling: |   |
| Special Provisions for carriage Operation:                           |   |
| Hazard identification No:  | Transport category (Tunnel restriction code): |

Sea transport (IMDG)

|                                |                                   |
|--------------------------------|-----------------------------------|
| Marine Pollutant:              | Subsidiary risk(s) for IMDG:      |
| Packing provisions for IMDG:   | Limited quantities for IMDG:      |
| Packing instructions for IMDG: | IBC Instructions:                 |
| IBC Provisions:                | IMO tank instructions:            |
| UN tank instructions:          | Tanks and bulk Provisions:        |
| EmS :                          | Stowage and segregation for IMDG: |
| Properties and observations:   |                                   |

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#### Inland waterway transport (ADN)

Classification Code ADN:

Limited quantities ADN:

Carriage permitted:

Provisions concerning loading and unloading:

Number of blue cones/lights:

Special Provisions ADN:

Excepted quantities ADN:

Equipment required:

Provisions concerning carriage:

Remark:

#### Air transport (ICAO-TI / IATA-DGR)

Subsidiary risk for IATA:

Excepted quantity for IATA:

Passenger and Cargo Aircraft Limited Quantities Packing Instructions:

Passenger and Cargo Aircraft Limited Quantities Maximal Net Quantity :

Passenger and Cargo Aircraft Packaging Instructions :

Passenger and Cargo Aircraft Maximal Net Quantity :

Cargo Aircraft only Packaging Instructions :

Cargo Aircraft only Maximal Net Quantity :

ERG code:

Special Provisions for IATA:

## SECTION 15 : REGULATORY INFORMATION

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

#### EU regulations

- Authorisations and/or restrictions on use:

Authorisations:

Restrictions on use:

SVHC :

- Other EU regulations:
- Directive 2010/75/EC on industrial emissions

Not relevant

#### National regulations

### 15.2 Chemical Safety Assessment:

For this mixture, no chemical safety assessment has been carried out

## SECTION 16 : OTHER INFORMATION

### 16.1 Indication of changes

Date of the previous version:06/09/2023

Modifications:

### 16.2 Other informations

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**16.3 Classification for mixtures and used evaluation method according to regulation (EC) 1207/2008 [CLP]:**

See SECTION 2.1 (classification).

**16.4 Relevant R-, H- and EUH-phrases (number and full text):**