



# SAFETY DATA SHEET

This safety data sheet was created pursuant to the requirements of:  
Regulation (EC) No. 1907/2006 as amended by Regulation (EU) No. 2020/878, and  
Regulation (EC) No. 1272/2008

Revision date 08-Apr-2025

Version 8

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

### 1.1. Product identifier

**Product No** T1013

**Product name** **Discontinued**  
Monarch Plasmid Neutralization Buffer (B3)

**Pure substance/mixture** Mixture

Contains Guanidine Hydrochloride, Potassium Hydroxide

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

**Recommended use** This product is for research and development only

**Uses advised against** No information available

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

**Supplier Address**  
New England BioLabs  
240 County Road  
Ipswich, MA 01938  
USA

For further information, please contact

**Company Phone Number** 978-927-5054, 800-632-5227 (toll free)

**Telefax** 978-921-1350

**E-mail address** info@neb.com

### 1.4. Emergency telephone number

24 Hour Emergency Phone Number Chemtrec +44 20 3885 0382

|        |                 |
|--------|-----------------|
| Europe | +1 978-380-2125 |
|--------|-----------------|

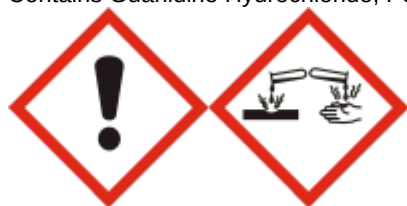
**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture**

Classification according to  
Regulation (EC) No. 1272/2008 [CLP]

|                                   |                                    |
|-----------------------------------|------------------------------------|
| Acute toxicity - Oral             | Category 4 - (H302)                |
| Skin corrosion/irritation         | Category 1 Sub-category B - (H314) |
| Serious eye damage/eye irritation | Category 1 - (H318)                |

**2.2. Label elements**

Contains Guanidine Hydrochloride, Potassium Hydroxide

**Signal word**

Danger

**Hazard statements**

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

**Precautionary Statements - EU (§28, 1272/2008)**

P260 - Do not breathe dust, fume, gas, mist, vapors and spray.

P280 - Wear protective gloves/protective clothing and eye/face protection.

P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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

P310 - Immediately call a POISON CENTER or doctor.

P331 - Do NOT induce vomiting.

**Unknown aquatic toxicity**

Contains 0 % of components with unknown hazards to the aquatic environment.

**Additional information**

This product requires child resistant fastenings if supplied to the general public. This product requires tactile warnings if supplied to the general public.

**2.3. Other hazards**

No information available.

**Endocrine Disruptor Information**

This product does not contain any known or suspected endocrine disruptors.

**SECTION 3: Composition/information on ingredients****3.1 Substances**

Not applicable

**3.2 Mixtures**

| Chemical name | Weight-% | REACH registration number | EC No (EU Index No) | Classification according to Regulation (EC) No. 1272/2008 [CLP]    | Specific concentration limit (SCL)                                                                                        | M-Factor | M-Factor (long-term) |
|---------------|----------|---------------------------|---------------------|--------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------|----------------------|
| Trade Secret  | 15 - 40  | No data available         | .?                  | Acute Tox. 4 (H302)<br>Skin Irrit. 2 (H315)<br>Eye Irrit. 2 (H319) | -                                                                                                                         | -        | -                    |
| Trade Secret  | 3 - 7    | No data available         | .?                  | Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)                            | -                                                                                                                         | -        | -                    |
| Trade Secret  | 1 - 5    | No data available         | .?                  | No data available                                                  | -                                                                                                                         | -        | -                    |
| Trade Secret  | 1 - 5    | No data available         | .?                  | Acute Tox. 4 (H302)<br>Skin Corr. 1A (H314)                        | Eye Irrit. 2 ::<br>0.5%<=C<2%<br>Skin Corr. 1A :: C>=5%<br>Skin Corr. 1B ::<br>2%<=C<5%<br>Skin Irrit. 2 ::<br>0.5%<=C<2% | -        | -                    |

**Full text of H- and EUH-phrases: see section 16****Acute Toxicity Estimate**

If LD50/LC50 data is not available or does not correspond to the classification category, then the appropriate conversion value from CLP Annex I, Table 3.1.2, is used to calculate the acute toxicity estimate (ATEmix) for classifying a mixture based on its components

| Chemical name | Oral LD50 mg/kg | Dermal LD50 mg/kg | Inhalation LC50 - 4 hour - dust/mist - mg/L | Inhalation LC50 - 4 hour - vapor - mg/L | Inhalation LC50 - 4 hour - gas - ppm |
|---------------|-----------------|-------------------|---------------------------------------------|-----------------------------------------|--------------------------------------|
| Trade Secret  | 773.6<br>907.1  | 2000              | No data available                           | No data available                       | No data available                    |
| Trade Secret  | 3000            | 2000              | No data available                           | No data available                       | No data available                    |
| Trade Secret  | 3550            | 10000             | No data available                           | No data available                       | No data available                    |
| Trade Secret  | 284             | No data available | No data available                           | No data available                       | No data available                    |

This product does not contain candidate substances of very high concern at a concentration  $\geq 0.1\%$  (Regulation (EC) No. 1907/2006 (REACH), Article 59)

**SECTION 4: First aid measures****4.1. Description of first aid measures****General advice**

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

|                                           |                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>                         | Remove to fresh air. If breathing has stopped, give artificial respiration. Get medical attention immediately. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. If breathing is difficult, (trained personnel should) give oxygen. Delayed pulmonary edema may occur. Get immediate medical attention. |
| <b>Eye contact</b>                        | Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Do not rub affected area. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical attention.                                                                                                                                                                                                               |
| <b>Skin contact</b>                       | Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Get immediate medical attention.                                                                                                                                                                                                                                                                                                                                  |
| <b>Ingestion</b>                          | Do NOT induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Get immediate medical attention.                                                                                                                                                                                                                                                                                                                                            |
| <b>Self-protection of the first aider</b> | Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid contact with skin, eyes or clothing. Avoid direct contact with skin. Use barrier to give mouth-to-mouth resuscitation. Wear personal protective clothing (see section 8).                                                                                                                                        |

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

**Symptoms** Burning sensation.

**Effects of Exposure** None.

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

**Note to physicians** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Do not give chemical antidotes. Asphyxia from glottal edema may occur. Marked decrease in blood pressure may occur with moist rales, frothy sputum, and high pulse pressure.

### **SECTION 5: Firefighting measures**

#### **5.1. Extinguishing media**

**Suitable Extinguishing Media** Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Large Fire** CAUTION: Use of water spray when fighting fire may be inefficient.

**Unsuitable extinguishing media** Do not scatter spilled material with high pressure water streams.

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

**Specific hazards arising from the chemical** The product causes burns of eyes, skin and mucous membranes. Thermal decomposition can lead to release of irritating gases and vapors.

#### **5.3. Advice for firefighters**

**Special protective equipment and precautions for fire-fighters** Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.

### **SECTION 6: Accidental release measures**

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

**Personal precautions** Attention! Corrosive material. Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Use personal protective equipment as required. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

**Other information** Refer to protective measures listed in Sections 7 and 8.

**For emergency responders** Use personal protection recommended in Section 8.

#### **6.2. Environmental precautions**

**Environmental precautions** Prevent further leakage or spillage if safe to do so. Should not be released into the environment. Do not allow to enter into soil/subsoil. Prevent product from entering drains.

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

**Methods for containment** Prevent further leakage or spillage if safe to do so.

**Methods for cleaning up** Take up mechanically, placing in appropriate containers for disposal.

**Prevention of secondary hazards** Clean contaminated objects and areas thoroughly observing environmental regulations.

#### **6.4. Reference to other sections**

**Reference to other sections** See section 8 for more information. See section 13 for more information.

### **SECTION 7: Handling and storage**

#### **7.1. Precautions for safe handling**

**Advice on safe handling** Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. In case of insufficient ventilation, wear suitable respiratory equipment. Handle product only in closed system or provide appropriate exhaust ventilation. Do not eat, drink or smoke when using this product. Take off contaminated clothing and wash before reuse.

**General hygiene considerations** Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product.

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

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place. Keep out of the reach of children. Protect from moisture. Store locked up. Store away from other materials.

**Storage class (TRGS 510)** Storage class 8A.

#### **7.3. Specific end use(s)**

**Risk management methods [RMM]** The information required is contained in this Safety Data Sheet.

### **SECTION 8: Exposure controls/personal protection**

#### **8.1. Control parameters**

**Exposure Limits**

| Chemical name | European Union                                                | Austria                                                  | Belgium                                               | Bulgaria                                              | Croatia                                                 |
|---------------|---------------------------------------------------------------|----------------------------------------------------------|-------------------------------------------------------|-------------------------------------------------------|---------------------------------------------------------|
| Trade Secret  | -                                                             | TWA: 2 mg/m <sup>3</sup>                                 | -                                                     | TWA: 2.0 mg/m <sup>3</sup>                            | STEL: 2 mg/m <sup>3</sup>                               |
| Chemical name | Cyprus                                                        | Czech Republic                                           | Denmark                                               | Estonia                                               | Finland                                                 |
| Trade Secret  | -                                                             | TWA: 4 mg/m <sup>3</sup>                                 | -                                                     | -                                                     | -                                                       |
| Trade Secret  | -                                                             | TWA: 1 mg/m <sup>3</sup><br>Ceiling: 2 mg/m <sup>3</sup> | STEL: 2 mg/m <sup>3</sup>                             | TWA: 2 mg/m <sup>3</sup>                              | Ceiling: 2 mg/m <sup>3</sup>                            |
| Chemical name | France                                                        | Germany TRGS                                             | Germany DFG                                           | Greece                                                | Hungary                                                 |
| Trade Secret  | -                                                             | TWA: 2 mg/m <sup>3</sup>                                 | TWA: 2 mg/m <sup>3</sup><br>Peak: 4 mg/m <sup>3</sup> | -                                                     | -                                                       |
| Trade Secret  | STEL: 2 mg/m <sup>3</sup>                                     | -                                                        | -                                                     | TWA: 2 mg/m <sup>3</sup><br>STEL: 2 mg/m <sup>3</sup> | TWA: 2 mg/m <sup>3</sup><br>STEL: 2 mg/m <sup>3</sup>   |
| Chemical name | Ireland                                                       | Italy MDLPS                                              | Italy AIDII                                           | Latvia                                                | Lithuania                                               |
| Trade Secret  | -                                                             | -                                                        | -                                                     | TWA: 5 mg/m <sup>3</sup>                              | TWA: 5 mg/m <sup>3</sup>                                |
| Trade Secret  | STEL: 2 mg/m <sup>3</sup>                                     | -                                                        | Ceiling: 2 mg/m <sup>3</sup>                          | -                                                     | -                                                       |
| Chemical name | Luxembourg                                                    | Malta                                                    | Netherlands                                           | Norway                                                | Poland                                                  |
| Trade Secret  | -                                                             | -                                                        | -                                                     | Ceiling: 2 mg/m <sup>3</sup>                          | TWA: 0.5 mg/m <sup>3</sup><br>STEL: 1 mg/m <sup>3</sup> |
| Chemical name | Portugal                                                      | Romania                                                  | Slovakia                                              | Slovenia                                              | Spain                                                   |
| Trade Secret  | Ceiling: 2 mg/m <sup>3</sup>                                  | TWA: 1 mg/m <sup>3</sup><br>STEL: 3 mg/m <sup>3</sup>    | -                                                     | -                                                     | STEL: 2 mg/m <sup>3</sup>                               |
| Chemical name | Sweden                                                        |                                                          | Switzerland                                           |                                                       | United Kingdom                                          |
| Trade Secret  | -                                                             |                                                          | TWA: 2 mg/m <sup>3</sup><br>STEL: 4 mg/m <sup>3</sup> |                                                       | -                                                       |
| Trade Secret  | NGV: 1 mg/m <sup>3</sup><br>Bindande KGV: 2 mg/m <sup>3</sup> |                                                          | STEL: 2 mg/m <sup>3</sup>                             |                                                       | STEL: 2 mg/m <sup>3</sup>                               |

**Biological occupational exposure limits**

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

**Derived No Effect Level (DNEL) - Workers****Notes**

- [4] Systemic health effects.  
 [5] Local health effects.  
 [6] Long term.  
 [7] Short term.

**Derived No Effect Level (DNEL) - General Public****Notes**

- [4] Systemic health effects.  
 [5] Local health effects.  
 [6] Long term.  
 [7] Short term.

**Predicted No Effect Concentration (PNEC)****8.2. Exposure controls****Engineering controls**

No information available.

**Individual protection measures, such as personal protective equipment**

|                                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
|----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Eye/face protection</b>             | Tight sealing safety goggles. Face protection shield.                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Hand protection</b>                 | Wear suitable gloves. Impervious gloves.                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>Skin and body protection</b>        | Wear suitable protective clothing. Long sleeved clothing. Chemical resistant apron.                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Respiratory protection</b>          | No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.                                                                                                                                                                                                                                                                              |
| <b>General hygiene considerations</b>  | Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Contaminated work clothing should not be allowed out of the workplace. Regular cleaning of equipment, work area and clothing is recommended. Wash hands before breaks and immediately after handling the product. |
| <b>Environmental exposure controls</b> | No information available.                                                                                                                                                                                                                                                                                                                                                                                                                             |

## SECTION 9: Physical and chemical properties

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

|                       |                          |
|-----------------------|--------------------------|
| <b>Physical state</b> | Liquid                   |
| <b>Appearance</b>     | Yellow                   |
| <b>Color</b>          | No information available |
| <b>Odor</b>           | Acidic.                  |
| <b>Odor threshold</b> | No information available |

| <u>Property</u>                                | <u>Values</u>            | <u>Remarks • Method</u> |
|------------------------------------------------|--------------------------|-------------------------|
| <b>Melting point / freezing point</b>          | No data available        | None known              |
| <b>Initial boiling point and boiling range</b> | No data available        | None known              |
| <b>Flammability (solid, gas)</b>               | No data available        | None known              |
| <b>Flammability Limit in Air</b>               |                          | None known              |
| <b>Upper flammability or explosive limits</b>  | No data available        |                         |
| <b>Lower flammability or explosive limits</b>  | No data available        |                         |
| <b>Flash point</b>                             | No data available        | None known              |
| <b>Autoignition temperature</b>                | 1010 °C                  | None known              |
| <b>Decomposition temperature</b>               |                          | None known              |
| <b>pH</b>                                      | 4.0 - 4.3                |                         |
| <b>pH (as aqueous solution)</b>                | No data available        | None known              |
| <b>Kinematic viscosity</b>                     | No data available        | None known              |
| <b>Dynamic viscosity</b>                       | No data available        | None known              |
| <b>Water solubility</b>                        | No data available        | None known              |
| <b>Solubility(ies)</b>                         | No data available        | None known              |
| <b>Partition coefficient</b>                   | No data available        | None known              |
| <b>Vapor pressure</b>                          | No data available        | None known              |
| <b>Relative density</b>                        | No data available        | None known              |
| <b>Bulk density</b>                            | No data available        |                         |
| <b>Liquid Density</b>                          | No data available        |                         |
| <b>Vapor density</b>                           | No data available        | None known              |
| <b>Particle characteristics</b>                |                          |                         |
| <b>Particle Size</b>                           | No information available |                         |
| <b>Particle Size Distribution</b>              | No information available |                         |

### 9.2. Other information

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

Not applicable

#### 9.2.2. Other safety characteristics

No information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity** No information available.

### 10.2. Chemical stability

**Stability** Stable under normal conditions.

#### Explosion data

**Sensitivity to mechanical impact** None.

**Sensitivity to static discharge** None.

### 10.3. Possibility of hazardous reactions

**Possibility of hazardous reactions** None under normal processing.

### 10.4. Conditions to avoid

**Conditions to avoid** Exposure to air or moisture over prolonged periods.

### 10.5. Incompatible materials

**Incompatible materials** Acids. Bases. Oxidizing agent.

### 10.6. Hazardous decomposition products

**Hazardous decomposition products** Thermal decomposition can lead to release of irritating and toxic gases and vapors.

## SECTION 11: Toxicological information

### 11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

#### Information on likely routes of exposure

##### Product Information

|                     |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
|---------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Inhalation</b>   | Specific test data for the substance or mixture is not available. Corrosive by inhalation. (based on components). Inhalation of corrosive fumes/gases may cause coughing, choking, headache, dizziness, and weakness for several hours. Pulmonary edema may occur with tightness in the chest, shortness of breath, bluish skin, decreased blood pressure, and increased heart rate. Inhaled corrosive substances can lead to a toxic edema of the lungs. Pulmonary edema can be fatal. |
| <b>Eye contact</b>  | Specific test data for the substance or mixture is not available. Causes serious eye damage. (based on components). Corrosive to the eyes and may cause severe damage including blindness. May cause irreversible damage to eyes.                                                                                                                                                                                                                                                       |
| <b>Skin contact</b> | Specific test data for the substance or mixture is not available. Corrosive. (based on components). Causes burns.                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Ingestion</b>    | Specific test data for the substance or mixture is not available. Causes burns. (based on components). Ingestion causes burns of the upper digestive and respiratory tracts. May cause severe burning pain in the mouth and stomach with vomiting and diarrhea of dark blood. Blood pressure may decrease. Brownish or yellowish stains may be seen around the                                                                                                                          |

mouth. Swelling of the throat may cause shortness of breath and choking. May cause lung damage if swallowed. May be fatal if swallowed and enters airways.

#### Symptoms related to the physical, chemical and toxicological characteristics

**Symptoms** Redness. Burning. May cause blindness. Coughing and/ or wheezing.

**Acute toxicity** Harmful if swallowed.

#### **Numerical measures of toxicity**

The following values are calculated based on chapter 3.1 of the GHS document

|                               |                |
|-------------------------------|----------------|
| ATEmix (oral)                 | 1,265.00 mg/kg |
| ATEmix (dermal)               | 5,091.60 mg/kg |
| ATEmix (inhalation-gas)       | 99,999.00 ppm  |
| ATEmix (inhalation-vapor)     | 99,999.00 mg/l |
| ATEmix (inhalation-dust/mist) | 99,999.00 mg/l |

#### **Component Information**

| Chemical name | Oral LD50                                      | Dermal LD50              | Inhalation LC50                                      |
|---------------|------------------------------------------------|--------------------------|------------------------------------------------------|
| Trade Secret  | = 773.6 mg/kg ( Rat )<br>= 907.1 mg/kg ( Rat ) | > 2000 mg/kg ( Rabbit )  | = 3.181 mg/L ( Rat ) 4 h<br>= 7.655 mg/L ( Rat ) 4 h |
| Trade Secret  | = 3 g/kg ( Rat )                               | > 2000 mg/kg ( Rat )     | -                                                    |
| Trade Secret  | = 3550 mg/kg ( Rat )                           | > 10000 mg/kg ( Rabbit ) | > 42 mg/L ( Rat ) 1 h                                |
| Trade Secret  | = 284 mg/kg ( Rat )                            | -                        | -                                                    |

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

|                                          |                                                                                                  |
|------------------------------------------|--------------------------------------------------------------------------------------------------|
| <b>Skin corrosion/irritation</b>         | Classification based on data available for ingredients. Causes severe skin burns and eye damage. |
| <b>Serious eye damage/eye irritation</b> | Classification based on data available for ingredients. Causes serious eye damage. Causes burns. |
| <b>Respiratory or skin sensitization</b> | No information available.                                                                        |
| <b>Germ cell mutagenicity</b>            | No information available.                                                                        |
| <b>Carcinogenicity</b>                   | No information available.                                                                        |
| <b>Reproductive toxicity</b>             | No information available.                                                                        |
| <b>STOT - single exposure</b>            | No information available.                                                                        |

STOT - repeated exposure No information available.

Aspiration hazard No information available.

## 11.2. Information on other hazards

### 11.2.1. Endocrine disrupting properties

Endocrine disrupting properties No information available.

### 11.2.2. Other information

Other adverse effects No information available.

## SECTION 12: Ecological information

### 12.1. Toxicity

#### Ecotoxicity

Unknown aquatic toxicity Contains 0 % of components with unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish                                                                                                                                                                                                                                                                                                                                                      | Toxicity to microorganisms | Crustacea                                                                                            |
|---------------|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|------------------------------------------------------------------------------------------------------|
| Trade Secret  | -                    | LC50: =1516mg/L (96h, <i>Lepomis macrochirus</i> )                                                                                                                                                                                                                                                                                                        | -                          | -                                                                                                    |
| Trade Secret  | -                    | LC50: 5560 - 6080mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: =12946mg/L (96h, <i>Lepomis macrochirus</i> )<br>LC50: 6020 - 7070mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: =7050mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 6420 - 6700mg/L (96h, <i>Pimephales promelas</i> )<br>LC50: 4747 - 7824mg/L (96h, <i>Oncorhynchus mykiss</i> ) | -                          | EC50: =1000mg/L (48h, <i>Daphnia magna</i> )<br>EC50: 340.7 - 469.2mg/L (48h, <i>Daphnia magna</i> ) |

### 12.2. Persistence and degradability

Persistence and degradability No information available.

### 12.3. Bioaccumulative potential

#### Bioaccumulation

##### Component Information

| Chemical name | Partition coefficient |
|---------------|-----------------------|
| Trade Secret  | -1.7                  |
| Trade Secret  | -1.72                 |
| Trade Secret  | 0.83                  |

**12.4. Mobility in soil**

Mobility in soil No information available.

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

PBT and vPvB assessment No information available.

| Chemical name | PBT and vPvB assessment |
|---------------|-------------------------|
| Trade Secret  | Not PBT/vPvB            |
| Trade Secret  | Not PBT/vPvB            |
| Trade Secret  | Not PBT/vPvB            |
| Trade Secret  | Not PBT/vPvB            |

**12.6. Endocrine disrupting properties**

Endocrine disrupting properties No information available.

**12.7. Other adverse effects**

No information available.

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

**Waste from residues/unused products** Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.

**Contaminated packaging** Do not reuse empty containers.

**Other information** Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information****IATA**

**14.1 UN number or ID number** UN1760

**14.2 Extended Proper Shipping Name** Not regulated

**14.3 Transport hazard class(es)** 8

**14.4 Packing group** II

**14.5 Environmental hazard** Not applicable

**14.6 Special precautions for user**

**Special Provisions** None

**IMDG**

**14.1 UN number or ID number** Not regulated

**14.2 Extended Proper Shipping Name** Not regulated

**14.3 Transport hazard class(es)** Not regulated

**14.4 Packing group** Not regulated

**14.5 Environmental hazard** Not applicable

**14.6 Special precautions for user**

**Special Provisions** None

**14.7 Maritime transport in bulk** No information available

according to IMO instruments

**RID**

|                                    |                |
|------------------------------------|----------------|
| 14.1 UN number or ID number        | Not regulated  |
| 14.2 Extended Proper Shipping Name | Not regulated  |
| 14.3 Transport hazard class(es)    | Not regulated  |
| 14.4 Packing group                 | Not regulated  |
| 14.5 Environmental hazard          | Not applicable |
| 14.6 Special precautions for user  |                |
| Special Provisions                 | None           |

**ADR**

|                                   |                |
|-----------------------------------|----------------|
| 14.1 UN number or ID number       | Not regulated  |
| 14.2 UN proper shipping name      | Not regulated  |
| 14.3 Transport hazard class(es)   | Not regulated  |
| 14.4 Packing group                | Not regulated  |
| 14.5 Environmental hazard         | Not applicable |
| 14.6 Special precautions for user |                |
| Special Provisions                | None           |

## SECTION 15: Regulatory information

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

| Chemical name  | French RG number |
|----------------|------------------|
| Trade Secret - | RG 78            |

#### European Union

Take note of Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

#### Authorizations and/or restrictions on use:

This product does not contain substances subject to authorization (Regulation (EC) No. 1907/2006 (REACH), Annex XIV) This product does not contain substances subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

#### Persistent Organic Pollutants

Not applicable

#### Ozone-depleting substances (ODS) Regulation (EU) 2024/590

Not applicable

| Chemical name  | EU - Plant Protection Products (1107/2009/EC) |
|----------------|-----------------------------------------------|
| Trade Secret - | Plant protection agent                        |

#### Biocidal Products Regulation (EU) No 528/2012 (BPR)

| Chemical name  | Biocidal Products Regulation (EU) No 528/2012 (BPR)                                                                                                            |
|----------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Trade Secret - | Product-type 2: Disinfectants and algicides not intended for direct application to humans or animals Product-type 6: Preservatives for products during storage |
| Trade Secret - | Product-type 1: Human hygiene                                                                                                                                  |

#### International Inventories

TSCA

Contact supplier for inventory compliance status

DSL/NDL

Contact supplier for inventory compliance status

EINECS/ELINCS

Contact supplier for inventory compliance status

ENCS

Contact supplier for inventory compliance status

IECSC

Contact supplier for inventory compliance status

|              |                                                  |
|--------------|--------------------------------------------------|
| <b>KECL</b>  | Contact supplier for inventory compliance status |
| <b>PICCS</b> | Contact supplier for inventory compliance status |
| <b>AIIC</b>  | Contact supplier for inventory compliance status |
| <b>NZIoC</b> | Contact supplier for inventory compliance status |

**Legend:**

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory  
**DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List  
**EINECS/ELINCS** - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances  
**ENCS** - Japan Existing and New Chemical Substances  
**IECSC** - China Inventory of Existing Chemical Substances  
**KECL** - Korean Existing Chemicals Inventory  
**PICCS** - Philippines Inventory of Chemicals and Chemical Substances  
**AICS** - Australian Inventory of Chemical Substances  
**NZIoC** - New Zealand Inventory of Chemicals

**15.2. Chemical safety assessment**

**Chemical Safety Report** No information available

**SECTION 16: Other information****Key or legend to abbreviations and acronyms used in the safety data sheet****Full text of any hazard and/or precautionary statements referred to under Sections 2-15**

H302 - Harmful if swallowed  
H314 - Causes severe skin burns and eye damage  
H315 - Causes skin irritation  
H319 - Causes serious eye irritation  
H335 - May cause respiratory irritation

**Legend**

SVHC: Substances of Very High Concern for Authorization:

**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

|         |                             |      |                                  |
|---------|-----------------------------|------|----------------------------------|
| TWA     | TWA (time-weighted average) | STEL | STEL (Short Term Exposure Limit) |
| Ceiling | Maximum limit value         | Sk*  | Skin designation                 |
| +       | Sensitizers                 |      |                                  |

**Key literature references and sources for data used to compile the SDS**

Agency for Toxic Substances and Disease Registry (ATSDR)  
U.S. Environmental Protection Agency ChemView Database  
European Food Safety Authority (EFSA)  
European Chemicals Agency (ECHA) Committee for Risk Assessment (ECHA\_RAC)  
European Chemicals Agency (ECHA) (ECHA\_API)  
Environmental Protection Agency  
Acute Exposure Guideline Level(s) (AEGL(s))  
U.S. Environmental Protection Agency Federal Insecticide, Fungicide, and Rodenticide Act  
U.S. Environmental Protection Agency High Production Volume Chemicals  
Food Research Journal  
Hazardous Substance Database  
International Uniform Chemical Information Database (IUCLID)  
National Institute of Technology and Evaluation (NITE)  
Australia National Industrial Chemicals Notification and Assessment Scheme (NICNAS)  
NIOSH (National Institute for Occupational Safety and Health)  
National Library of Medicine's ChemID Plus (NLM CIP)  
National Library of Medicine's PubMed database (NLM PUBMED)  
U.S. National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organization for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organization for Economic Co-operation and Development High Production Volume Chemicals Program

Organization for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision date** 08-Apr-2025

**This material safety data sheet complies with the requirements of Regulation (EC) No. 1907/2006**

**Disclaimer**

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**End of Safety Data Sheet**