# SAFETY DATA SHEET

**Creation Date** 20-Jan-2012 **Revision Date** 10-Dec-2021 **Revision Number** 2

## SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

**Product Description:** PathoDX STREP Grouping ®
**Cat No. :** R62025

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

**Recommended Use** Laboratory chemicals.
**Uses advised against** No Information available

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

**Company**

Remel Europe Ltd.,
Clipper Boulevard West, Crossways, Dartford
Kent. DA2 6PT
UK
Tel: (+44) 1322 295600
Fax: (+44) 1322 225413
mbd-sds@thermofisher.com

**EU entity/business name**
Thermo Fisher Diagnostics B.V.,
Scheepbouwersweg 1 B,
1121 PC Landsmeer, The Netherlands

Thermo Fisher Scientific
20 Dalgleish Street
Thebarton
Adelaide
South Australia 5031
AUSTRALIA
Tel: 61 8 8238 9050 or 1800 33 11 63 (Toll Free)
Fax: 61 8 8238 9060 or 1800 00 70 54 (Toll Free).

**E-mail address** mbd-sds@thermofisher.com

### 1.4. Emergency telephone number

1800 331 163

## SECTION 2: HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

**CLP Classification - Regulation (EC) No 1272/2008**

**Physical hazards**

Based on available data, the classification criteria are not met

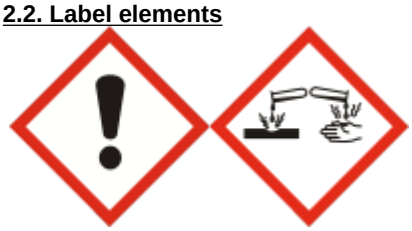
**Health hazards**

| | |
|---|---|
| Acute oral toxicity | Category 4 (H302) |
| Skin Corrosion/Irritation | Category 1 A (H314) |
| Serious Eye Damage/Eye Irritation | Category 1 Category 2 (H318) (H319) |
| Skin Sensitization | Category 1 (H317) |

**Environmental hazards**
Based on available data, the classification criteria are not met

*Full text of Hazard Statements: see section 16*

### 2.2. Label elements



**Signal Word** **Danger**

**Hazard Statements**
H302 - Harmful if swallowed
H314 - Causes severe skin burns and eye damage
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation

**Precautionary Statements**
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/physician
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P330 + P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower

### 2.3. Other hazards

## SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

### 3.2. Mixtures

| Component | CAS No | EC No | Weight % | CLP Classification - Regulation (EC) No 1272/2008 |
|---|---|---|---|---|
| Sodium nitrite | 7632-00-0 | EEC No. 231-555-9 | 19.4 | Acute Tox. 3 (H301)<br>Aquatic Acute 1 (H400) |
| Acetic acid | 64-19-7 | EEC No. 200-580-7 | 32 | Skin Corr. 1A (H314)<br>Flam. Liq. 3 (H226) |
| Carbonic acid, disodium salt, monohydrate | 5968-11-6 | | 27.5 | Eye Irrit. 2 (H319) |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | 55965-84-9 | | 0.05 | Acute Tox. 3 (H301)<br>Acute Tox. 2 (H310)<br>Acute Tox. 2 (H330)<br>Skin Corr. 1C (H314)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1A (H317)<br>(EUH071)<br>Aquatic Acute 1 (H400) |

| | | | | |
|---|---|---|---|---|
| | | | | Aquatic Chronic 1 (H410) |

| Component | Specific concentration limits (SCL's) | M-Factor | Component notes |
|---|---|---|---|
| Sodium nitrite | - | 1 | - |
| Acetic acid | Eye Irrit. 2 (H319) :: 10%<=C<25%<br>Skin Corr. 1A (H314) :: C>=90%<br>Skin Corr. 1B (H314) :: 25%<=C<90%<br>Skin Irrit. 2 (H315) :: 10%<=C<25% | - | - |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | Eye Irrit. 2 (H319) :: 0.06%<=C<0.6%<br>Skin Corr. 1C (H314) :: C>=0.6%<br>Skin Irrit. 2 (H315) :: 0.06%<=C<0.6%<br>Skin Sens. 1A (H317) :: C>=0.0015%<br>Eye Dam. 1 (H318) :: C>=0.6% | 100 (acute)<br>100 (chronic) | - |

*Full text of Hazard Statements: see section 16*

## SECTION 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

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

**Eye Contact** Immediate medical attention is required. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

**Skin Contact** Wash off immediately with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Call a physician immediately.

**Ingestion** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Clean mouth with water. Call a physician immediately.

**Inhalation** If breathing is difficult, give oxygen. Remove from exposure, lie down. 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. Call a physician immediately.

**Self-Protection of the First Aider** Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination.

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

Causes burns by all exposure routes. May cause allergic skin reaction. . Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated: Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation: Symptoms of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing

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

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

**Suitable Extinguishing Media**
$CO_2$, dry chemical, dry sand, alcohol-resistant foam.

**Extinguishing media which must not be used for safety reasons**
No information available.

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

Thermal decomposition can lead to release of irritating gases and vapors. The product causes burns of eyes, skin and mucous membranes.

**Hazardous Combustion Products**
Thermal decomposition can lead to release of irritating gases and vapors.

### 5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear. Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Use personal protective equipment as required. Ensure adequate ventilation. Avoid contact with skin and eyes.

### 6.2. Environmental precautions

Should not be released into the environment. Do not flush into surface water or sanitary sewer system.

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

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal.

### 6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Do not breathe mist/vapors/spray. Do not ingest. If swallowed then seek immediate medical assistance.

**Hygiene Measures**
Handle in accordance with good industrial hygiene and safety practice.

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

Keep containers tightly closed in a dry, cool and well-ventilated place. Corrosives area.

**Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)** Storage Class/LGK 8B

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

Use in laboratories

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Control parameters**

**Exposure limits**

List source(s): **EU** - Commission Directive (EU) 2019/1831 of 24 October 2019 establishing a fifth list of indicative occupational exposure limit values pursuant to Council Directive 98/24/EC and amending Commission Directive 2000/39/EC **UK** - EH40/2005 Work Exposure Limits, Third edition. Published 2018. **IRE -** 2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001. Published by the Health and Safety Authority. **CH** - The Government of Switzerland has set a directive on limit values for working materials (Grenzwerte am arbeitplatz) which is based on the Swiss Federal Regulation "Verordnung über die Verhütung von Unfällen und Berufskrankheiten". This directive is administered, periodically revised and enforced by SUVA (Swiss National Accident Insurance Fund).

| Component | European Union | The United Kingdom | France | Belgium | Spain |
|---|---|---|---|---|---|
| Acetic acid | - | STEL: 37 mg/m³<br>STEL: 15 ppm<br>TWA: 10 ppm<br>TWA: 25 mg/m³ | STEL / VLCT: 10 ppm.<br>STEL / VLCT: 25 mg/m³. | TWA: 10 ppm 8 uren<br>TWA: 25 mg/m³ 8 uren<br>STEL: 15 ppm 15 minuten<br>STEL: 38 mg/m³ 15 minuten | STEL / VLA-EC: 20 ppm (15 minutos).<br>STEL / VLA-EC: 50 mg/m³ (15 minutos).<br>TWA / VLA-ED: 10 ppm (8 horas)<br>TWA / VLA-ED: 25 mg/m³ (8 horas) |

| Component | Italy | Germany | Portugal | The Netherlands | Finland |
|---|---|---|---|---|---|
| Acetic acid | - | TWA: 10 ppm (8 Stunden). AGW - exposure factor 2<br>TWA: 25 mg/m³ (8 Stunden). AGW - exposure factor 2<br>TWA: 10 ppm (8 Stunden). MAK<br>TWA: 25 mg/m³ (8 Stunden). MAK<br>Höhepunkt: 20 ppm<br>Höhepunkt: 50 mg/m³ | STEL: 20 ppm 15 minutos<br>STEL: 50 mg/m³ 15 minutos<br>TWA: 10 ppm 8 horas<br>TWA: 25 mg/m³ 8 horas | MAC-TGG 25 mg/m³ | TWA: 5 ppm 8 tunteina<br>TWA: 13 mg/m³ 8 tunteina<br>STEL: 10 ppm 15 minuutteina<br>STEL: 25 mg/m³ 15 minuutteina |

| Component | Austria | Denmark | Switzerland | Poland | Norway |
|---|---|---|---|---|---|
| Acetic acid | MAK-KZGW: 20 ppm 15 Minuten<br>MAK-KZGW: 50 mg/m³ 15 Minuten<br>MAK-TMW: 10 ppm 8 Stunden<br>MAK-TMW: 25 mg/m³ 8 Stunden | TWA: 10 ppm 8 timer<br>TWA: 25 mg/m³ 8 timer | STEL: 20 ppm 15 Minuten<br>STEL: 50 mg/m³ 15 Minuten<br>TWA: 10 ppm 8 Stunden<br>TWA: 25 mg/m³ 8 Stunden | STEL: 50 mg/m³ 15 minutach<br>TWA: 25 mg/m³ 8 godzinach | TWA: 10 ppm 8 timer<br>TWA: 25 mg/m³ 8 timer<br>STEL: 20 ppm 15 minutter. value from the regulation<br>STEL: 50 mg/m³ 15 minutter. value from the regulation |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | MAK-TMW: 0.05 mg/m³ 8 Stunden | | TWA: 0.2 mg/m³ 8 Stunden | | |

| Component | Bulgaria | Croatia | Ireland | Cyprus | Czech Republic |
|---|---|---|---|---|---|
| Acetic acid | TWA: 25 mg/m³<br>TWA: 10 ppm<br>STEL : 50 mg/m³<br>STEL : 20 ppm | TWA-GVI: 10 ppm 8 satima.<br>TWA-GVI: 25 mg/m³ 8 satima. | TWA: 20 ppm 8 hr.<br>TWA: 50 mg/m³ 8 hr.<br>STEL: 20 ppm 15 min<br>STEL: 50 mg/m³ 15 min | STEL: 50 mg/m³<br>STEL: 20 ppm<br>TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 25 mg/m³ 8 hodinách.<br>Ceiling: 50 mg/m³ |

| | | | | | |
|---|---|---|---|---|---|
| | | STEL-KGVI: 20 ppm 15 minutama.<br>STEL-KGVI: 50 mg/m³ 15 minutama. | | | |

| Component | Estonia | Gibraltar | Greece | Hungary | Iceland |
|---|---|---|---|---|---|
| Acetic acid | TWA: 10 ppm 8 tundides.<br>TWA: 25 mg/m³ 8 tundides.<br>STEL: 10 ppm 15 minutites.<br>STEL: 25 mg/m³ 15 minutites. | TWA: 25 mg/m³ 8 hr<br>TWA: 10 ppm 8 hr<br>STEL: 50 mg/m³ 15 min<br>STEL: 20 ppm 15 min | STEL: 15 ppm<br>STEL: 37 mg/m³<br>TWA: 10 ppm<br>TWA: 25 mg/m³ | STEL: 50 mg/m³ 15 percekben. CK<br>TWA: 25 mg/m³ 8 órában. AK | STEL: 20 ppm<br>STEL: 50 mg/m³<br>TWA: 10 ppm 8 klukkustundum.<br>TWA: 25 mg/m³ 8 klukkustundum. |

| Component | Latvia | Lithuania | Luxembourg | Malta | Romania |
|---|---|---|---|---|---|
| Sodium nitrite | | Ceiling: 0.1 mg/m³ | | | |
| Acetic acid | STEL: 50 mg/m³<br>STEL: 20 ppm<br>TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 10 ppm IPRD<br>TWA: 25 mg/m³ IPRD<br>STEL: 50 mg/m³<br>STEL: 20 ppm | TWA: 10 ppm 8 Stunden<br>TWA: 25 mg/m³ 8 Stunden<br>STEL: 50 mg/m³ 15 Minuten<br>STEL: 20 ppm 15 Minuten | TWA: 10 ppm<br>TWA: 25 mg/m³<br>STEL: 20 ppm 15 minuti<br>STEL: 50 mg/m³ 15 minuti | TWA: 10 ppm 8 ore<br>TWA: 25 mg/m³ 8 ore<br>STEL: 20 ppm 15 minute<br>STEL: 50 mg/m³ 15 minute |

| Component | Russia | Slovak Republic | Slovenia | Sweden | Turkey |
|---|---|---|---|---|---|
| Sodium nitrite | MAC: 0.1 mg/m³ | | | | |
| Acetic acid | Skin notation<br>MAC: 5 mg/m³ | Ceiling: 50 mg/m³<br>TWA: 10 ppm<br>TWA: 25 mg/m³ | TWA: 10 ppm 8 urah<br>TWA: 25 mg/m³ 8 urah<br>STEL: 50 mg/m³ 15 minutah<br>STEL: 20 ppm 15 minutah | Binding STEL: 10 ppm 15 minuter<br>Binding STEL: 25 mg/m³ 15 minuter<br>TLV: 5 ppm 8 timmar. NGV<br>TLV: 13 mg/m³ 8 timmar. NGV | TWA: 10 ppm 8 saat<br>TWA: 25 mg/m³ 8 saat |

**Biological limit values**

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

**Monitoring methods**

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

**Derived No Effect Level (DNEL) / Derived Minimum Effect Level (DMEL)**

See table for values

| Component | Acute effects local (Inhalation) | Acute effects systemic (Inhalation) | Chronic effects local (Inhalation) | Chronic effects systemic (Inhalation) |
|---|---|---|---|---|
| Acetic acid<br>64-19-7 ( 32 ) | DNEL = 25mg/m³ | | DNEL = 25mg/m³ | |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone<br>55965-84-9 ( 0.05 ) | DNEL = 0.04mg/m³ | | DNEL = 0.02mg/m³ | |

**Predicted No Effect Concentration (PNEC)**
See values below.

| Component | Fresh water | Fresh water sediment | Water Intermittent | Microorganisms in sewage treatment | Soil (Agriculture) |
|---|---|---|---|---|---|
| Acetic acid 64-19-7 ( 32 ) | PNEC = 3.058mg/L | PNEC = 11.36mg/kg sediment dw | PNEC = 30.58mg/L | PNEC = 85mg/L | PNEC = 0.47mg/kg soil dw |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9 ( 0.05 ) | PNEC = 3.39µg/L | PNEC = 0.027mg/kg sediment dw | PNEC = 3.39µg/L | PNEC = 0.23mg/L | PNEC = 0.01mg/kg soil dw |

| Component | Marine water | Marine water sediment | Marine water Intermittent | Food chain | Air |
|---|---|---|---|---|---|
| Acetic acid 64-19-7 ( 32 ) | PNEC = 0.3058mg/L | PNEC = 1.136mg/kg sediment dw | | | |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone 55965-84-9 ( 0.05 ) | PNEC = 3.39µg/L | PNEC = 0.027mg/kg sediment dw | PNEC = 3.39µg/L | | |

**8.2. Exposure controls**

**Engineering Measures**
Handle only in a place equipped with local exhaust (or other appropriate exhaust). Ensure that eyewash stations and safety showers are close to the workstation location.
Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

**Personal protective equipment**

**Eye Protection** Goggles (European standard - EN 166)

**Hand Protection** Protective gloves

| Glove material | Breakthrough time | Glove thickness | EU standard | Glove comments |
|---|---|---|---|---|
| Disposable gloves | See manufacturers recommendations | - | EN 374 | (minimum requirement) |

**Skin and body protection** Long sleeved clothing.

Inspect gloves before use. observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information) gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. gloves with care avoiding skin contamination.

**Respiratory Protection** When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.
To protect the wearer, respiratory protective equipment must be the correct fit and be used and maintained properly

**Large scale/emergency use** In case of insufficient ventilation, wear suitable respiratory equipment

**Small scale/Laboratory use** Use a NIOSH/MSHA or European Standard EN 149:2001 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.
When RPE is used a face piece Fit Test should be conducted

**Environmental exposure controls** Prevent product from entering drains. Do not allow material to contaminate ground water system. Local authorities should be advised if significant spillages cannot be contained.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

| | | |
|---|---|---|
| **Physical State** | Liquid | |
| **Appearance** | Colourless White | |
| **Odor** | No information available | |
| **Odor Threshold** | No data available | |
| **Melting Point/Range** | No data available | |
| **Softening Point** | No data available | |
| **Boiling Point/Range** | Not applicable | |
| **Flammability (liquid)** | No data available | |
| **Flammability (solid,gas)** | Not applicable | Liquid |
| **Explosion Limits** | No data available | |
| **Flash Point** | Not applicable | **Method -** No information available |
| **Autoignition Temperature** | No data available | |
| **Decomposition Temperature** | No data available | |
| **pH** | Not applicable | |
| **Viscosity** | No data available | |
| **Water Solubility** | No information available | |
| **Solubility in other solvents** | No information available | |

**Partition Coefficient (n-octanol/water)**

| **Component** | **log Pow** |
|---|---|
| Sodium nitrite | -3.7 |
| Acetic acid | -0.2 |

| | | |
|---|---|---|
| **Vapor Pressure** | No data available | |
| **Density / Specific Gravity** | No data available | |
| **Bulk Density** | Not applicable | Liquid |
| **Vapor Density** | No data available | (Air = 1.0) |
| **Particle characteristics** | (liquid) Not applicable | |

### 9.2. Other information

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

None known, based on information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**Hazardous Polymerization** Hazardous polymerization does not occur.
**Hazardous Reactions** None under normal processing.

### 10.4. Conditions to avoid

Incompatible products. Excess heat.

### 10.5. Incompatible materials

None known.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to release of irritating gases and vapors.

## SECTION 11: TOXICOLOGICAL INFORMATION

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

**Product Information**

**(a) acute toxicity;**

| | |
|---|---|
| **Oral** | Category 4 |
| **Dermal** | Based on available data, the classification criteria are not met |
| **Inhalation** | Based on available data, the classification criteria are not met |

**Toxicology data for the components**

| Component | LD50 Oral | LD50 Dermal | LC50 Inhalation |
|---|---|---|---|
| Sodium nitrite | LD50 = 85 mg/kg ( Rat ) | - | LC50 = 5.5 mg/L ( Rat ) 4 h |
| Acetic acid | LD50 = 3310 mg/kg ( Rat ) | LD50 = 1060 mg/kg ( Rabbit ) | LC50 = 11.4 mg/L ( Rat ) 4 h |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | LD50 = 53 mg/kg ( Rat ) | LD50 = 87.12 mg/kg ( Rabbit ) | - |

**(b) skin corrosion/irritation;** Category 1 A

**(c) serious eye damage/irritation;** Category 2

**(d) respiratory or skin sensitization;**

| | |
|---|---|
| **Respiratory** | No data available |
| **Skin** | Category 1 |
| | May cause sensitization by skin contact |

**(e) germ cell mutagenicity;** No data available

**(f) carcinogenicity;** No data available

There are no known carcinogenic chemicals in this product

**(g) reproductive toxicity;** No data available

**(h) STOT-single exposure;** No data available

**(i) STOT-repeated exposure;** No data available

**Target Organs** No information available.

**(j) aspiration hazard;** No data available

**Symptoms / effects,both acute and delayed** Product is a corrosive material. Use of gastric lavage or emesis is contraindicated. Possible perforation of stomach or esophagus should be investigated. Ingestion causes severe swelling, severe damage to the delicate tissue and danger of perforation. Symptoms

of allergic reaction may include rash, itching, swelling, trouble breathing, tingling of the hands and feet, dizziness, lightheadedness, chest pain, muscle pain or flushing.

### 11.2. Information on other hazards

**Endocrine Disrupting Properties** Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

## SECTION 12: ECOLOGICAL INFORMATION

### 12.1. Toxicity

**Ecotoxicity effects** Contains a substance which is:. Very toxic to aquatic organisms. However, at the concentration present, this preparation is not expected to present significant adverse environmental effects.

| Component | Freshwater Fish | Water Flea | Freshwater Algae |
|---|---|---|---|
| Sodium nitrite | Oncorhynchus mykiss: LC50 = 0.09-0.13 mg/L 96h | 12.5-100 mg/L 48h | |
| Acetic acid | Pimephales promelas: LC50 = 88 mg/L/96h<br>Lepomis macrochirus: LC50 = 75 mg/L/96h | EC50 = 95 mg/L/24h | |

| Component | Microtox | M-Factor |
|---|---|---|
| Sodium nitrite | | 1 |
| Acetic acid | Photobacterium phosphoreum: EC50 = 8.8 mg/L/15 min<br>Photobacterium phosphoreum: EC50 = 8.8 mg/L/25 min<br>Photobacterium phosphoreum: EC50 = 8.8 mg/L/5 min | |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | EC50 = 5.7 mg/L 16 h | 100 (acute)<br>100 (chronic) |

### 12.2. Persistence and degradability

No information available

**Degradation in sewage treatment plant** Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

### 12.3. Bioaccumulative potential

No information available

| Component | log Pow | Bioconcentration factor (BCF) |
|---|---|---|
| Sodium nitrite | -3.7 | No data available |
| Acetic acid | -0.2 | No data available |

### 12.4. Mobility in soil

No information available

### 12.5. Results of PBT and vPvB assessment

No data available for assessment.

### 12.6. Endocrine disrupting properties

**Endocrine Disruptor Information** This product does not contain any known or suspected endocrine disruptors

**12.7. Other adverse effects**

| | |
|---|---|
| **Persistent Organic Pollutant** | This product does not contain any known or suspected substance |
| **Ozone Depletion Potential** | This product does not contain any known or suspected substance |

## SECTION 13: DISPOSAL CONSIDERATIONS

**13.1. Waste treatment methods**

| | |
|---|---|
| **Waste from Residues/Unused Products** | Dispose of in accordance with federal, state and local regulations. Waste is classified as hazardous. Dispose of in accordance with the European Directives on waste and hazardous waste. Dispose of in accordance with local regulations. |
| **Contaminated Packaging** | Dispose of this container to hazardous or special waste collection point. |
| **European Waste Catalogue (EWC)** | According to the European Waste Catalog, Waste Codes are not product specific, but application specific. |
| **Other Information** | Do not flush to sewer. Waste codes should be assigned by the user based on the application for which the product was used. Do not empty into drains. Large amounts will affect pH and harm aquatic organisms. |
| **Switzerland - Waste Ordinance** | Disposal should be in accordance with applicable regional, national and local laws and regulations. Ordinance on the Avoidance and the Disposal of Waste (Waste Ordinance, ADWO) SR 814.600<br>https://www.fedlex.admin.ch/eli/cc/2015/891/en |

## SECTION 14: TRANSPORT INFORMATION

**IMDG/IMO**

| | |
|---|---|
| **14.1. UN number** | UN2790 |
| **14.2. UN proper shipping name** | Acetic Acid Solution (more than 10% but less than 50% acid by weight) |
| **14.3. Transport hazard class(es)** | 8 |
| **14.4. Packing group** | III |

**ADR**

| | |
|---|---|
| **14.1. UN number** | UN2790 |
| **14.2. UN proper shipping name** | Acetic Acid Solution (more than 10% but less than 50% acid by weight) |
| **14.3. Transport hazard class(es)** | 8 |
| **14.4. Packing group** | III |

**IATA**

| | |
|---|---|
| **14.1. UN number** | UN2790 |
| **14.2. UN proper shipping name** | Acetic Acid Solution (more than 10% but less than 50% acid by weight) |
| **14.3. Transport hazard class(es)** | 8 |
| **14.4. Packing group** | III |

| | |
|---|---|
| **14.5. Environmental hazards** | No hazards identified |
| **14.6. Special precautions for user** | No special precautions required |
| **14.7. Maritime transport in bulk according to IMO instruments** | Not applicable, packaged goods |

## SECTION 15: REGULATORY INFORMATION

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

### International Inventories

Europe (EINECS/ELINCS/NLP), China (IECSC), Taiwan (TCSI), Korea (KECL), Japan (ENCS), Japan (ISHL), Canada (DSL/NDSL), Australia (AICS), New Zealand (NZIoC), Philippines (PICCS). US EPA (TSCA) - Toxic Substances Control Act, (40 CFR Part 710)

| Component | CAS No | EINECS | ELINCS | NLP | IECSC | TCSI | KECL | ENCS | ISHL |
|---|---|---|---|---|---|---|---|---|---|
| Sodium nitrite | 7632-00-0 | 231-555-9 | - | - | X | X | KE-31546 | X | X |
| Acetic acid | 64-19-7 | 200-580-7 | - | - | X | X | KE-00013 | X | X |
| Carbonic acid, disodium salt, monohydrate | 5968-11-6 | - | - | - | X | X | - | X | X |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | 55965-84-9 | - | - | - | X | X | KE-05738 | X | X |

| Component | CAS No | TSCA | TSCA Inventory notification - Active-Inactive | DSL | NDSL | AICS | NZIoC | PICCS |
|---|---|---|---|---|---|---|---|---|
| Sodium nitrite | 7632-00-0 | X | ACTIVE | X | - | X | X | X |
| Acetic acid | 64-19-7 | X | ACTIVE | X | - | X | X | X |
| Carbonic acid, disodium salt, monohydrate | 5968-11-6 | - | - | - | - | X | X | X |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | 55965-84-9 | - | - | X | - | - | X | X |

**Legend:** X - Listed '-' - Not Listed **KECL** - NIER number or KE number (http://ncis.nier.go.kr/en/main.do)

### Authorisation/Restrictions according to EU REACH

| Component | REACH (1907/2006) - Annex XIV - Substances Subject to Authorization | REACH (1907/2006) - Annex XVII - Restrictions on Certain Dangerous Substances | REACH Regulation (EC 1907/2006) article 59 - Candidate List of Substances of Very High Concern (SVHC) |
|---|---|---|---|
| Sodium nitrite | - | Use restricted. See item 75. (see link for restriction details) | - |
| Acetic acid | - | Use restricted. See item 75. (see link for restriction details) | - |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | - | Use restricted. See item 75. (see link for restriction details) | - |

*https://echa.europa.eu/substances-restricted-under-reach*

| Component | CAS No | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification | Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements |
|---|---|---|---|
| Sodium nitrite | 7632-00-0 | Not applicable | Not applicable |
| Acetic acid | 64-19-7 | Not applicable | Not applicable |
| Carbonic acid, disodium salt, monohydrate | 5968-11-6 | Not applicable | Not applicable |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | 55965-84-9 | Not applicable | Not applicable |

**Regulation (EC) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of dangerous chemicals**

Not applicable

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 .

Take note of Directive 2000/39/EC establishing a first list of indicative occupational exposure limit values

**National Regulations**

**UK** - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

**WGK Classification** Water endangering class = 3 (self classification)

| Component | Germany - Water Classification (VwVwS) | Germany - TA-Luft Class |
|---|---|---|
| Sodium nitrite | WGK3 | |
| Acetic acid | WGK1 | Class II : 0.10 g/m³ (Massenkonzentration) |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | WGK3 | |

**Swiss Regulations**
Article 4 para. 4 of the Ordinance on the protection of young people in the workplace (SR 822.115) and Article 1 lit. f of the EAER regulation on hazardous work and young people (SR 822.115.2).
Take note on Article 13 Maternity Ordinance (SR 822.111.52) with regards expectant and nursing mothers.

| Component | Switzerland - Ordinance on the Reduction of Risk from handling of hazardous substances preparation (SR 814.81) | Switzerland - Ordinance on Incentive Taxes on Volatile Organic Compounds (OVOC) | Switzerland - Ordinance of the Rotterdam Convention on the Prior Informed Consent Procedure |
|---|---|---|---|
| Acetic acid 64-19-7 ( 32 ) | Prohibited and Restricted Substances | Group I | |

**15.2. Chemical safety assessment**

Chemical Safety Assessment/Reports (CSA/CSR) are not required for mixtures

## SECTION 16: OTHER INFORMATION

**Full text of H-Statements referred to under sections 2 and 3**
H226 - Flammable liquid and vapor
H314 - Causes severe skin burns and eye damage
H319 - Causes serious eye irritation
H301 - Toxic if swallowed
H311 - Toxic in contact with skin
H317 - May cause an allergic skin reaction
H331 - Toxic if inhaled
H400 - Very toxic to aquatic life
H410 - Very toxic to aquatic life with long lasting effects

**Legend**

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

**WEL** - Workplace Exposure Limit
**ACGIH** - American Conference of Governmental Industrial Hygienists
**DNEL** - Derived No Effect Level
**RPE** - Respiratory Protective Equipment
**LC50** - Lethal Concentration 50%
**TWA** - Time Weighted Average
**IARC** - International Agency for Research on Cancer
Predicted No Effect Concentration (PNEC)
**LD50** - Lethal Dose 50%
**EC50** - Effective Concentration 50%

**NOEC** - No Observed Effect Concentration
**PBT** - Persistent, Bioaccumulative, Toxic
**POW** - Partition coefficient Octanol:Water
**vPvB** - very Persistent, very Bioaccumulative

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road
**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code
**OECD** - Organisation for Economic Co-operation and Development
**BCF** - Bioconcentration factor
**ICAO/IATA** - International Civil Aviation Organization/International Air Transport Association
**MARPOL** - International Convention for the Prevention of Pollution from Ships
**ATE** - Acute Toxicity Estimate
**VOC** - (volatile organic compound)

**Key literature references and sources for data**
https://echa.europa.eu/information-on-chemicals
Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

**Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:**

| | |
|---|---|
| **Physical hazards** | On basis of test data |
| **Health Hazards** | Calculation method |
| **Environmental hazards** | Calculation method |

**Training Advice**
Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

| | |
|---|---|
| **Creation Date** | 20-Jan-2012 |
| **Revision Date** | 10-Dec-2021 |
| **Revision Summary** | Update to GHS format. |

## This safety data sheet complies with the requirements of Safe Work Australia WHS Regulation. COMMISSION REGULATION (EU) 2020/878 amending Annex II to Regulation (EC) No 1907/2006 .

## For Switzerland - Compiled in accordance with the technical provisions referred to in Annex 2, Number 3, ChemO (SR 813.11 - Ordinance on Protection against Dangerous Substances and Preparations).

**Disclaimer**

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# End of Safety Data Sheet