

Revision date 02-Mar-2022

Previous revision date 15-Dec-2021

Revision Number 1

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

### 1.1. Product identifier

**Product Name** R2 - 20 x Conc. Washing Solution, 70 ml  
**Catalogue Number(s)** 7361A, 7360S, 7360Z  
**Pure substance/mixture** Mixture

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

**Recommended use** In vitro diagnostic  
Restricted to professional users

**Uses advised against** No information available

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

**Corporate Headquarters**

Bio-Rad Laboratories Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

**Manufacturer**

Bio-Rad  
3 boulevard Raymond Poincaré  
92430 Marnes-la-Coquette  
France  
e-mail: [fds-msds.fr@bio-rad.com](mailto:fds-msds.fr@bio-rad.com)

**Legal Entity / Contact Address**

Bio-Rad Laboratories Ltd  
The Junction  
Station Road  
Watford, WD17 1ET  
UK

For further information, please contact

**Technical Service** 00800 00246 723  
[Techsupport.UK@bio-rad.com](mailto:Techsupport.UK@bio-rad.com)

### 1.4. Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC UK: 44-870-8200418

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

*Regulation (EC) No 1272/2008*

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

### 2.2. Label elements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

#### Hazard statements

This mixture is classified as not hazardous according to regulation (EC) 1272/2008 [CLP]

**EUH208** - Contains 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone May produce an allergic reaction.

### 2.3. Other hazards

## SECTION 3: Composition/information on ingredients

**3.1 Substances**

Not applicable

**3.2 Mixtures**

| Chemical name  | Weight-%     | REACH registration number | EC No     | Classification according to Regulation (EC) No. 1272/2008 [CLP]   | Specific concentration limit (SCL)   | M-Factor | M-Factor (long-term) |
|--|--------------|---------------------------|-----------|---|--|----------|----------------------|
| Hydrochloric acid<br>7647-01-0   | 0.3 - 0.999  | No data available         | 231-595-7 | Acute Tox. 3 (H301)<br>Acute Tox. 4 (H312)<br>Acute Tox. 3 (H331)<br>Skin Corr. 1B (H314)<br>Eye Irrit. 2 (H319)<br>STOT SE 3 (H335)  | Eye Irrit. 2 ::<br>1%<=C<3%<br>Skin Corr. 1B ::<br>C>=5%<br>Skin Irrit. 2 ::<br>1%<=C<5%<br>STOT SE 3 ::<br>C>=10%   | -        | -                    |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone<br>55965-84-9 | 0.001 - 0.01 | No data available         | -         | Acute Tox. 3 (H301)<br>Acute Tox. 3 (H311)<br>Acute Tox. 3 (H331)<br>Skin Corr. 1B (H314)<br>Eye Dam. 1 (H318)<br>Skin Sens. 1A (H317) (EUH071)<br>Aquatic Acute 1 (H400)<br>Aquatic Chronic 1 (H410) | Eye Irrit. 2 ::<br>0.06%<=C<0.6%<br>%<br>Skin Corr. 1C ::<br>C>=0.6%<br>Skin Irrit. 2 ::<br>0.06%<=C<0.6%<br>%<br>Skin Sens. 1A ::<br>C>=0.0015%<br>Eye Dam. 1 ::<br>C>=0.6% | 100      | 100                  |

**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 |
|--|-----------------|-------------------|---|---|--------------------------------------|
| Hydrochloric acid<br>7647-01-0   | 238             | 5010              | No data available                           | No data available                       | 563.3022                             |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone<br>55965-84-9 | 53              | 87.12             | No data available                           | No data available                       | No data available                    |

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

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

Remove to fresh air.

**Eye contact**

Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.

**Skin contact** Wash skin with soap and water. In the case of skin irritation or allergic reactions see a physician.

**Ingestion** Rinse mouth.

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

**Symptoms** No information available.

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

**Note to physicians** Treat symptomatically.

### **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** No information available.

#### 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** Ensure adequate ventilation.

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

#### 6.2. Environmental precautions

**Environmental precautions** See Section 12 for additional Ecological Information.

#### 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** Ensure adequate ventilation.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

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

**Storage Conditions** Store according to product and label instructions.

**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  |
|--|--|--|--|--|--|
| Hydrochloric acid<br>7647-01-0   | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>                   | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL 10 ppm<br>STEL 15 mg/m <sup>3</sup>   | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup> | STEL: 10 ppm<br>STEL: 15.0 mg/m <sup>3</sup><br>TWA: 5 ppm<br>TWA: 8.0 mg/m <sup>3</sup> | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>   |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone<br>55965-84-9 | -  | TWA: 0.05 mg/m <sup>3</sup><br>Skin sensitizer                                       | -  | -  | -  |
| Chemical name  | Cyprus   | Czech Republic   | Denmark  | Estonia  | Finland  |
| Hydrochloric acid<br>7647-01-0   | STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup><br>TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup>                   | TWA: 8 mg/m <sup>3</sup><br>Ceiling: 15 mg/m <sup>3</sup>                            | Ceiling: 5 ppm<br>Ceiling: 8 mg/m <sup>3</sup>                                       | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>     | STEL: 5 ppm<br>STEL: 7.6 mg/m <sup>3</sup>   |
| Chemical name  | France   | Germany  | Germany MAK  | Greece   | Hungary  |
| Hydrochloric acid<br>7647-01-0   | STEL: 5 ppm<br>STEL: 7.6 mg/m <sup>3</sup>   | TWA: 2 ppm<br>TWA: 3 mg/m <sup>3</sup>   | TWA: 2 ppm<br>TWA: 3.0 mg/m <sup>3</sup><br>Peak: 4 ppm<br>Peak: 6 mg/m <sup>3</sup> | TWA: 5 ppm<br>TWA: 7 mg/m <sup>3</sup><br>STEL: 5 ppm<br>STEL: 7 mg/m <sup>3</sup>       | TWA: 8 mg/m <sup>3</sup><br>STEL: 16 mg/m <sup>3</sup>                                 |
| Chemical name  | Ireland  | Italy  | Italy REL  | Latvia   | Lithuania  |
| Hydrochloric acid<br>7647-01-0   | TWA: 8 mg/m <sup>3</sup><br>TWA: 5 ppm<br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>                   | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup> | Ceiling: 2 ppm<br>Ceiling: 2.9 mg/m <sup>3</sup>                                     | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>     | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>   |
| Chemical name  | Luxembourg   | Malta  | Netherlands  | Norway   | Poland   |
| Hydrochloric acid<br>7647-01-0   | STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup><br>TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup>                   | STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup><br>TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup> | TWA: 8 mg/m <sup>3</sup><br>STEL: 15 mg/m <sup>3</sup>                               | Ceiling: 5 ppm<br>Ceiling: 7 mg/m <sup>3</sup>   | STEL: 10 mg/m <sup>3</sup><br>TWA: 5 mg/m <sup>3</sup>                                 |
| Chemical name  | Portugal   | Romania  | Slovakia   | Slovenia   | Spain  |
| Hydrochloric acid<br>7647-01-0   | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup><br>Ceiling: 2 ppm | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup> | TWA: 5 ppm<br>TWA: 8.0 mg/m <sup>3</sup><br>Ceiling: 15 mg/m <sup>3</sup>            | TWA: 5 ppm<br>TWA: 8 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup>     | TWA: 5 ppm<br>TWA: 7.6 mg/m <sup>3</sup><br>STEL: 10 ppm<br>STEL: 15 mg/m <sup>3</sup> |
| Chemical name  | Sweden   |  | Switzerland  | United Kingdom   |  |
| Hydrochloric acid<br>7647-01-0   | NGV: 2 ppm<br>NGV: 3 mg/m <sup>3</sup>   |  | TWA: 2 ppm<br>TWA: 3 mg/m <sup>3</sup>   | TWA: 1 ppm<br>TWA: 2 mg/m <sup>3</sup>   |  |

|  |  |  |  |
|--|--|--|--|
|  | Bindande KGV: 4 ppm<br>Bindande KGV: 6 mg/m <sup>3</sup> | STEL: 4 ppm<br>STEL: 6 mg/m <sup>3</sup><br>TWA: 0.2 mg/m <sup>3</sup> | STEL: 5 ppm<br>STEL: 8 mg/m <sup>3</sup> |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone<br>55965-84-9 | -  | -  | -  |

**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)** No information available.

**Predicted No Effect Concentration (PNEC)** No information available.

**8.2. Exposure controls****Personal protective equipment**

**Eye/face protection** No special protective equipment required.

**Skin and body protection** No special protective equipment required.

**Respiratory protection** No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.

**General hygiene considerations** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls** 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>      | aqueous solution         |
| <b>Colour</b>          | colourless               |
| <b>Odour</b>           | Odourless.               |
| <b>Odour 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>Boiling point / boiling range</b>          | 100 °C            |                          |
| <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>               | No data available | None known               |
| <b>Decomposition temperature</b>              |                   | None known               |
| <b>pH</b>                                     | 7.4               |                          |
| <b>pH (as aqueous solution)</b>               | No data available | No information available |
| <b>Kinematic viscosity</b>                    | No data available | None known               |
| <b>Dynamic viscosity</b>                      | No data available | None known               |
| <b>Water solubility</b>                       | Miscible in water |                          |
| <b>Solubility(ies)</b>                        | No data available | None known               |
| <b>Partition coefficient</b>                  | No data available | None known               |
| <b>Vapour pressure</b>                        | No data available | None known               |

|                            |                          |            |
|----------------------------|--------------------------|------------|
| Relative density           | No data available        | None known |
| Bulk density               | No data available        |            |
| Liquid Density             | No data available        |            |
| Vapour density             | No data available        | None known |
| Particle characteristics   |                          |            |
| Particle Size              | No information available |            |
| Particle Size Distribution | 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 None known based on information supplied.

**10.5. Incompatible materials**

Incompatible materials None known based on information supplied.

**10.6. Hazardous decomposition products**

Hazardous decomposition products None known based on information supplied.

**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**

Inhalation Specific test data for the substance or mixture is not available.

Eye contact Specific test data for the substance or mixture is not available.

Skin contact Specific test data for the substance or mixture is not available.

Ingestion Specific test data for the substance or mixture is not available.

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

**Symptoms** No information available.

**Acute toxicity**

**Numerical measures of toxicity**

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

ATEmix (oral) 8,706.80 mg/kg

ATEmix (inhalation-dust/mist) 83.50 mg/l

**Component Information**

| Chemical name  | Oral LD50               | Dermal LD50              | Inhalation LC50         |
|--|-------------------------|--------------------------|-------------------------|
| Hydrochloric acid  | 238 - 277 mg/kg ( Rat ) | > 5010 mg/kg ( Rabbit )  | = 1.68 mg/L ( Rat ) 1 h |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | = 53 mg/kg ( Rat )      | = 87.12 mg/kg ( Rabbit ) | -                       |

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

**Skin corrosion/irritation** No information available.

**Serious eye damage/eye irritation** No information available.

**Respiratory or skin sensitization** No information available.

**Germ cell mutagenicity** No information available.

**Carcinogenicity** No information available.

**Reproductive toxicity** No information available.

**STOT - single exposure** 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.

### 12.2. Persistence and degradability

**Persistence and degradability** No information available.

### 12.3. Bioaccumulative potential

**Bioaccumulation** There is no data for this product.

### 12.4. Mobility in soil

**Mobility in soil** No information available.

### 12.5. Results of PBT and vPvB assessment

#### PBT and vPvB assessment

| Chemical name  | PBT and vPvB assessment                                       |
|--|---|
| Hydrochloric acid  | The substance is not PBT / vPvB PBT assessment does not apply |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone | The substance is 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.

## SECTION 14: Transport information

### IATA

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 hazards Not applicable  
 14.6 Special Precautions for Users  
 Special Provisions None

### IMDG

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 hazards Not applicable  
 14.6 Special Precautions for Users



**Special Provisions** None  
**14.7 Maritime transport in bulk according to IMO instruments** No information available

**RID**

**14.1 UN 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 hazards** Not applicable  
**14.6 Special Precautions for Users**  
**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 hazards** Not applicable  
**14.6 Special Precautions for Users**  
**Special Provisions** None

## SECTION 15: Regulatory information

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

**National regulations****France**

Occupational Illnesses (R-463-3, France)

**Germany**

Water hazard class (WGK) slightly hazardous to water (WGK 1)

**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 contains one or more substance(s) subject to restriction (Regulation (EC) No. 1907/2006 (REACH), Annex XVII)

| Chemical name   | Restricted substance per REACH Annex XVII | Substance subject to authorization per REACH Annex XIV |
|---|---|--|
| Hydrochloric acid - 7647-01-0   | 75.                                       | -  |
| 5-Chloro-2-methyl-3(2H)-isothiazolone, mixture with 2-methyl-3(2H)-isothiazolone - 55965-84-9 | 75.                                       | -  |

**Persistent Organic Pollutants**

Not applicable

**Named dangerous substances per Seveso Directive (2012/18/EU)**

| Chemical name                 | Lower-tier requirements (tons) | Upper-tier requirements (tons) |
|-------------------------------|--------------------------------|--------------------------------|
| Hydrochloric acid - 7647-01-0 | 25                             | 250                            |

**Ozone-depleting substances (ODS) regulation (EC) 1005/2009**

Not applicable

**Plant protection products directive (91/414/EEC)****EU - Biocides**

| Chemical name                 | EU - Biocides  |
|-------------------------------|--|
| Hydrochloric acid - 7647-01-0 | Product-type 2: Disinfectants and algacides not intended |

|  |   |
|--|---|
|  | for direct application to humans or animals |
|--|---|

**International Inventories** Contact supplier for inventory compliance status

### 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 H-Statements referred to under section 3

EUH071 - Corrosive to the respiratory tract  
 H301 - Toxic if swallowed  
 H311 - Toxic in contact with skin  
 H312 - Harmful in contact with skin  
 H314 - Causes severe skin burns and eye damage  
 H317 - May cause an allergic skin reaction  
 H318 - Causes serious eye damage  
 H319 - Causes serious eye irritation  
 H331 - Toxic if inhaled  
 H335 - May cause respiratory irritation  
 H400 - Very toxic to aquatic life  
 H410 - Very toxic to aquatic life with long lasting effects

#### Legend

SVHC: Substances of Very High Concern for Authorisation:

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

TWA TWA (time-weighted average) STEL STEL (Short Term Exposure Limit)  
 Ceiling Maximum limit value \* Skin designation

| Classification procedure  |                    |
|---|--------------------|
| Classification according to Regulation (EC) No. 1272/2008 [CLP] | Method Used        |
| Acute oral toxicity   | Calculation method |
| Acute dermal toxicity   | Calculation method |
| Acute inhalation toxicity - gas                                 | Calculation method |
| Acute inhalation toxicity - Vapour                              | Calculation method |
| Acute inhalation toxicity - dust/mist                           | Calculation method |
| Skin corrosion/irritation                                       | Calculation method |
| Serious eye damage/eye irritation                               | Calculation method |
| Respiratory sensitisation                                       | Calculation method |
| Skin sensitisation  | Calculation method |
| Mutagenicity  | Calculation method |
| Carcinogenicity   | Calculation method |
| Reproductive toxicity   | Calculation method |
| STOT - single exposure  | Calculation method |
| STOT - repeated exposure  | Calculation method |
| Acute aquatic toxicity  | Calculation method |
| Chronic aquatic toxicity  | Calculation method |
| Aspiration hazard   | Calculation method |
| Ozone   | Calculation method |

#### 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)

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European Chemicals Agency (ECHA) (ECHA\_API)  
EPA (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 (IUCID)  
National Institute of Technology and Evaluation (NITE)  
Australian 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)  
National Toxicology Program (NTP)  
New Zealand's Chemical Classification and Information Database (CCID)  
Organisation for Economic Co-operation and Development Environment, Health, and Safety Publications  
Organisation for Economic Co-operation and Development High Production Volume Chemicals Programme  
Organisation for Economic Co-operation and Development Screening Information Data Set  
World Health Organization

**Revision Note** Significant changes throughout SDS. Review all sections

**Revision date** 02-Mar-2022

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

**Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

**End of Safety Data Sheet**