

KIT SAFETY DATA SHEET



Kit Product Name qUAntify Plus Control

Kit Catalogue Number(s) 962, 962X, 995, 995X

Revision date 06-Jan-2021

Kit Contents

| Catalogue Number(s) | Product Name |
|---------------------|--------------------------------|
| 963 | qUAntify Plus Control, Level 1 |
| 964 | qUAntify Plus Control, Level 2 |



SAFETY DATA SHEET

Revision date 06-Jan-2021

Revision Number 1

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

Product identifier

Product Name qUAntify Plus Control, Level 1

Catalogue Number(s) 963

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use In vitro diagnostic

Uses advised against No information available

Details of the supplier of the safety data sheet

Corporate Headquarters

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

Manufacturer

Bio-Rad Laboratories, Diagnostic Group
9500 Jeronimo Road
Irvine, California 92618-2017
USA

Legal Entity / Contact Address

Bio-Rad Laboratories Pty Ltd
189 Bush Road
Albany Auckland
New Zealand

Technical Service +64 9 415 2280 or 0508 805 500
sales.nz@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC New Zealand: 64-98010034

SECTION 2: Hazards identification

GHS Classification

| | |
|---|--------------------------|
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 (HSNO - 6.1D) |
| Skin corrosion/irritation | Category 2 (HSNO - 6.3A) |
| Serious eye damage/eye irritation | Category 2 (HSNO - 6.4A) |

Label elements



Signal word

Warning

Hazard statements

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H332 - Harmful if inhaled

Precautionary Statements - Prevention

Avoid breathing dust/fume/gas/mist/vapours/spray
Use only outdoors or in a well-ventilated area
Wash face, hands and any exposed skin thoroughly after handling
Wear protective gloves/protective clothing/eye protection/face protection

Eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
If eye irritation persists: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of water and soap
If skin irritation occurs: Get medical advice/attention
Take off all contaminated clothing and wash it before reuse

Inhalation

IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTRE or doctor if you feel unwell

Other hazards which do not result in classification

Contains human source material and / or potentially infectious components

SECTION 3: Composition/information on ingredients

| Chemical name | CAS No | Weight-% |
|---------------------------|-------------|-------------|
| Phosphoric acid | 7664-38-2 | 1 - 2.5 |
| Sodium hydroxide | 1310-73-2 | 0.3 - 0.999 |
| Non-hazardous ingredients | Proprietary | Balance |

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

Show this safety data sheet to the doctor in attendance.

Inhalation

Get medical attention immediately if symptoms occur. Remove to fresh air. If symptoms persist, call a doctor. If breathing has stopped, give artificial respiration. Get medical attention immediately.

Eye contact

Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Keep eye wide open while rinsing. Do not rub affected area. Get medical attention if irritation develops and persists. Contains human source material and / or potentially infectious components. Call a doctor.

Skin contact

Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists. Wash skin with soap and water.

Ingestion

Do NOT induce vomiting. Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Get medical attention. Call a doctor. Contains human source material and / or potentially infectious components.

Self-protection of the first aider

Avoid contact with skin, eyes or clothing. Ensure that medical personnel are aware of the material(s) involved, take precautions to protect themselves and prevent spread of contamination. Avoid breathing vapours or mists. Use personal protective equipment as required. See section 8 for more information.

Most important symptoms and effects, both acute and delayed

Symptoms May cause redness and tearing of the eyes. Burning sensation. Coughing and/ or wheezing. Difficulty in breathing.

Indication of any immediate medical attention and special treatment needed

Note to doctors Contains human source material and / or potentially infectious components.

SECTION 5: Firefighting measures

Suitable Extinguishing Media

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

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical None known.

Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions Avoid contact with skin, eyes or clothing. Ensure adequate ventilation. Avoid breathing vapours or mists. Use personal protective equipment as required.

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

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions Prevent further leakage or spillage if safe to do so.

Methods and material for containment and cleaning up

Methods for containment Do not allow into any sewer, on the ground or into any body of water.

Methods for cleaning up Clean contaminated surface thoroughly. Use: Disinfectant.

Precautions to prevent secondary hazards

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

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling Take off contaminated clothing and wash it before reuse. Avoid contact with skin, eyes or clothing. Handle in accordance with good industrial hygiene and safety practice. Avoid breathing vapours or mists. Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Do not eat, drink or smoke when using this product.

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. Follow universal and standard precautions for handling potentially infectious materials.

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. Store according to product and label instructions.

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Metals.

SECTION 8: Exposure controls/personal protection

Control parameters

Exposure Limits

| Chemical name | New Zealand | ACGIH TLV | United Kingdom | Australia |
|-------------------------------|------------------------------|---|---|---|
| Phosphoric acid 7664-38-2 | TWA: 1 mg/m ³ | STEL: 3 mg/m ³ TWA: 1 mg/m ³ | TWA: 1 mg/m ³ STEL: 2 mg/m ³ | 1 mg/m ³ 3 mg/m ³ STEL |
| Sodium hydroxide 1310-73-2 | Ceiling: 2 mg/m ³ | Ceiling: 2 mg/m ³ | STEL: 2 mg/m ³ | 2 mg/m ³ Peak |

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

Appropriate engineering controls

Engineering controls Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles).

Hand protection Impervious gloves. Wear suitable gloves.

Skin and body protection Wear suitable protective clothing.

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.

Environmental exposure controls No information available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Physical state Liquid
Appearance Clear to slightly cloudy
Colour yellow
Odour Odourless.
Odour threshold No information available

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|-----------------|---------------|-------------------------|
| pH | 5.0-6.0 | |

| | | |
|--|-------------------|----------------|
| Melting point / freezing point | No data available | None known |
| Boiling point / boiling range | No data available | Not applicable |
| Flash point | No data available | Not applicable |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapour pressure | No data available | None known |
| Vapour density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | Miscible in water | |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Explosive properties | Not applicable. | |
| Oxidising properties | Not applicable. | |
| Other information | | |
| Molecular weight | Not applicable | |
| VOC Content (%) | Not applicable | |

SECTION 10: Stability and reactivity

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions Avoid contact with metals. This product contains Sodium azide. Sodium azide can react with Copper, Brass, Lead, and solder in piping systems to form explosive compounds and toxic gases.

Conditions to avoid

Conditions to avoid Excessive heat.

Incompatible materials

Incompatible materials Strong acids. Strong bases. Strong oxidising agents. Metals.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity**Information on likely routes of exposure****Product Information**

| | |
|---------------------|--|
| Inhalation | May cause irritation of respiratory tract. Specific test data for the substance or mixture is not available. Harmful by inhalation. (based on components). |
| Eye contact | Irritating to eyes. Specific test data for the substance or mixture is not available. Causes serious eye irritation. (based on components). |
| Skin contact | Causes skin irritation. (based on components). Specific test data for the substance or mixture is not available. |
| Ingestion | Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. |

Symptoms Redness. May cause redness and tearing of the eyes. Coughing and/ or wheezing.

Acute toxicity**Numerical measures of toxicity**

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

| | |
|--------------------------------------|-----------------|
| ATEmix (oral) | 88,745.40 mg/kg |
| ATEmix (inhalation-dust/mist) | 2.26 mg/l |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|------------------|----------------------|-------------------------|-------------------------------------|
| Phosphoric acid | = 1530 mg/kg (Rat) | = 2740 mg/kg (Rabbit) | > 850 mg/m ³ (Rat) 1 h |
| Sodium hydroxide | = 325 mg/kg (Rat) | = 1350 mg/kg (Rabbit) | - |

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

| | |
|--|--|
| Skin corrosion/irritation | Classification based on data available for ingredients. Irritating to skin. |
| Serious eye damage/eye irritation | Classification based on data available for ingredients. Causes serious eye irritation. |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. |
| Carcinogenicity | Based on available data, the classification criteria are not met. |
| Reproductive toxicity | Based on available data, the classification criteria are not met. |
| STOT - single exposure | Based on available data, the classification criteria are not met. |
| Respiratory irritation | Based on available data, the classification criteria are not met. |
| Narcotic effects | Based on available data, the classification criteria are not met. |
| STOT - repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Based on available data, the classification criteria are not met. |

SECTION 12: Ecological information**Ecotoxicity**

Ecotoxicity .

Aquatic ecotoxicity

Unknown aquatic toxicity 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|------------------|----------------------|--|---|
| Phosphoric acid | - | LC50: 3 - 3.5mg/L (96h, <i>Gambusia affinis</i>) | EC50: =4.6mg/L (12h, <i>Daphnia magna</i>) |
| Sodium hydroxide | - | LC50: =45.4mg/L (96h, <i>Oncorhynchus mykiss</i>) | - |

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Mobility in soil**Other adverse effects**

No information available.

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

Contaminated packaging For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from
Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance)

SECTION 14: Transport information

IATA Not regulated

IMDG Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code

No information available

SECTION 15: Regulatory information

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

National regulations

New Zealand

| Chemical name | New Zealand HSNO Chemical Classification |
|------------------------------|--|
| Phosphoric acid - 7664-38-2 | 6.1D (All),6.1D (O),6.1E (D),8.1A,8.2C,8.3A,9.1D (All),9.1D (Oth),9.3C 6.1E (All),6.1E (O),6.3A,6.4A,8.1A,9.1D (All),9.1D (Oth) |
| Sodium hydroxide - 1310-73-2 | 6.1D (All),6.1D (D),6.1D (O),8.1A,8.2B,8.3A,9.1D (All),9.1D (C),9.1D (F),9.3C 6.1D (All),6.1D (O),6.1E (D),8.1A,8.2B,8.3A,9.1D (All),9.1D (C),9.1D (F) 6.1E (All),6.1E (O),6.3A,6.4A 6.1E (All),6.1E (O),8.1A,8.2C,8.3A |

National regulations

See Section 8 for any applicable tolerable exposure limits and environmental exposure limits

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

EPA New Zealand HSNO approval code or group standard

Not applicable

International Inventories

Contact supplier for inventory compliance status

Legend:**International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information**Prepared By**

Bio-Rad Laboratories, Environmental Health and Safety

Revision date

06-Jan-2021

Revision Note

*** Indicates this information has changed since the previous revision.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

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)
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 (IUCLID)
Japan GHS Classification
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
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

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

Revision date 06-Jan-2021

Revision Number 1

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

Product identifier

Product Name qUAntify Plus Control, Level 2

Catalogue Number(s) 964

Other means of identification

Recommended use of the chemical and restrictions on use

Recommended use In vitro diagnostic

Uses advised against No information available

Details of the supplier of the safety data sheet

Corporate Headquarters

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

Manufacturer

Bio-Rad Laboratories, Diagnostic Group
9500 Jeronimo Road
Irvine, California 92618-2017
USA

Legal Entity / Contact Address

Bio-Rad Laboratories Pty Ltd
189 Bush Road
Auckland
New Zealand

Technical Service +64 9 415 2280 or 0508 805 500
sales.nz@bio-rad.com

Emergency telephone number

24 Hour Emergency Phone Number CHEMTREC New Zealand: 64-98010034

SECTION 2: Hazards identification

GHS Classification

| | |
|----------------------------------|---------------------------|
| Skin corrosion/irritation | Category 3 (HSNO - 6.3B) |
| Skin sensitisation | Category 1A |
| Reproductive toxicity | Category 1B (HSNO - 6.8A) |
| Acute aquatic toxicity | Category 3 (HSNO - 9.1D) |
| Chronic aquatic toxicity | Category 3 (HSNO - 9.1C) |

Label elements



Signal word
Warning

Hazard statements

H316 - Causes mild skin irritation
H317 - May cause an allergic skin reaction
H360 - May damage fertility or the unborn child
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements - Prevention

Do not handle until all safety precautions have been read and understood
Wear protective gloves/protective clothing/eye protection/face protection
Avoid breathing dust/fume/gas/mist/vapours/spray
Contaminated work clothing should not be allowed out of the workplace
Avoid release to the environment

Precautionary Statements - Response

IF exposed or concerned: Get medical advice/attention

Skin

IF ON SKIN: Wash with plenty of water and soap
If skin irritation or rash occurs: Get medical advice/attention
Take off all contaminated clothing and wash it before reuse

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards which do not result in classification

Contains animal source material
Contains human source material and / or potentially infectious components

SECTION 3: Composition/information on ingredients

| Chemical name | CAS No | Weight-% |
|---------------------------|-------------|-------------|
| Trade secret | - | 0.3 - 0.999 |
| Hydrochloric acid | 7647-01-0 | 0.3 - 0.999 |
| Non-hazardous ingredients | Proprietary | Balance |

SECTION 4: First aid measures**Description of first aid measures**

| | |
|-----------------------|--|
| General advice | Show this safety data sheet to the doctor in attendance. |
| Inhalation | Remove to fresh air. |
| Eye contact | Contains human source material and / or potentially infectious components. Call a doctor. |
| Skin contact | Wash with soap and water. May cause an allergic skin reaction. In the case of skin irritation or allergic reactions see a doctor. Wash skin with soap and water. |
| Ingestion | Call a doctor. Contains human source material and / or potentially infectious components. |

Most important symptoms and effects, both acute and delayed

| | |
|-----------------|---|
| Symptoms | Itching. Rashes. Hives. Prolonged contact may cause redness and irritation. |
|-----------------|---|

Indication of any immediate medical attention and special treatment needed

| | |
|------------------------|---|
| Note to doctors | May cause sensitisation in susceptible persons. Treat symptomatically. Contains human source material and / or potentially infectious components. |
|------------------------|---|

SECTION 5: Firefighting measures

Suitable Extinguishing Media

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

Unsuitable extinguishing media No information available.

Specific hazards arising from the chemical

Specific hazards arising from the chemical Product is or contains a sensitiser. May cause sensitisation by skin contact.

Special protective actions for fire-fighters

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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions 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.

For emergency responders Use personal protection recommended in Section 8.

Environmental precautions

Environmental precautions See Section 12 for additional Ecological Information.

Methods and material for containment and cleaning up

Methods for containment Do not allow into any sewer, on the ground or into any body of water.

Methods for cleaning up Clean contaminated surface thoroughly. Use: Disinfectant.

Precautions to prevent secondary hazards

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

SECTION 7: Handling and storage

Precautions for safe handling

Advice on safe handling Ensure adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment. Take off contaminated clothing and wash it before reuse. Handle in accordance with good industrial hygiene and safety practice. Avoid contact with skin, eyes or clothing. Do not eat, drink or smoke when using this product. Remove contaminated clothing and shoes.

General hygiene considerations Do not eat, drink or smoke when using this product. Wash hands before breaks and immediately after handling the product. Follow universal and standard precautions for handling potentially infectious materials.

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. Store locked up. Store according to product and label instructions.

Incompatible materials

None known based on information supplied.

SECTION 8: Exposure controls/personal protection

Control parameters**Exposure Limits**

| Chemical name | New Zealand | ACGIH TLV | United Kingdom | Australia |
|--------------------------------|--|--|--|--|
| Trade secret | TWA: 1 mg/m ³ | STEL: 6 mg/m ³ inhalable particulate matter TWA: 2 mg/m ³ inhalable particulate matter | TWA: 1 mg/m ³ STEL: 3 mg/m ³ | 1 mg/m ³ |
| Hydrochloric acid 7647-01-0 | Ceiling: 5 ppm Ceiling: 7.5 mg/m ³ | Ceiling: 2 ppm | TWA: 1 ppm TWA: 2 mg/m ³ STEL: 5 ppm STEL: 8 mg/m ³ | 5 ppm Peak 7.5 mg/m ³ Peak |

Biological occupational exposure limits

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

Appropriate engineering controls**Engineering controls**

Showers
Eyewash stations
Ventilation systems.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear safety glasses with side shields (or goggles).

Hand protection

Wear suitable gloves.

Skin and body protection

Wear suitable protective clothing.

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.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

| | |
|-----------------|--------------------------|
| Physical state | Liquid |
| Appearance | Clear to slightly cloudy |
| Colour | yellow amber |
| Odour | Odourless. |
| Odour threshold | No information available |

Property**Values****Remarks • Method**

pH

7.0-9.0

Melting point / freezing point

No data available

Not applicable

| | | |
|--|-------------------|----------------|
| Boiling point / boiling range | No data available | Not applicable |
| Flash point | No data available | None known |
| Evaporation rate | No data available | None known |
| Flammability (solid, gas) | No data available | None known |
| Flammability Limit in Air | | None known |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapour pressure | No data available | None known |
| Vapour density | No data available | None known |
| Relative density | No data available | None known |
| Water solubility | Miscible in water | |
| Solubility(ies) | No data available | None known |
| Partition coefficient | No data available | None known |
| Autoignition temperature | No data available | None known |
| Decomposition temperature | | None known |
| Kinematic viscosity | No data available | None known |
| Dynamic viscosity | No data available | None known |
| Explosive properties | Not applicable. | |
| Oxidising properties | Not applicable. | |
| <u>Other information</u> | | |
| Molecular weight | Not applicable | |
| VOC Content (%) | Not applicable | |

SECTION 10: Stability and reactivity

Reactivity

Reactivity No information available.

Chemical stability

Stability Stable under normal conditions.

Explosion data

Sensitivity to mechanical impact None.

Sensitivity to static discharge None.

Possibility of hazardous reactions

Possibility of hazardous reactions None under normal processing.

Conditions to avoid

Conditions to avoid None known based on information supplied.

Incompatible materials

Incompatible materials None known based on information supplied.

Hazardous decomposition products

Hazardous decomposition products None known based on information supplied.

SECTION 11: Toxicological information

Acute toxicity

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 | May cause sensitisation by skin contact. Repeated or prolonged skin contact may cause allergic reactions with susceptible persons. (based on components). Specific test data for the substance or mixture is not available. Causes mild skin irritation. |
| Ingestion | Specific test data for the substance or mixture is not available. |
| Symptoms | Itching. Rashes. Hives. Prolonged contact may cause redness and irritation. |

Acute toxicity**Numerical measures of toxicity****Component Information**

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|-------------------|-------------------------|-------------------------|-----------------------------------|
| Trade secret | = 2660 mg/kg (Rat) | > 2000 mg/kg (Rabbit) | > 2 mg/m ³ (Rat) 4 h |
| Hydrochloric acid | 238 - 277 mg/kg (Rat) | > 5010 mg/kg (Rabbit) | = 1.68 mg/L (Rat) 1 h |

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

| | |
|--|--|
| Skin corrosion/irritation | Classification based on data available for ingredients. May cause skin irritation. |
| Serious eye damage/eye irritation | Based on available data, the classification criteria are not met. |
| Respiratory or skin sensitisation | May cause sensitisation by skin contact |
| Germ cell mutagenicity | Based on available data, the classification criteria are not met. |
| Carcinogenicity | . |

The table below indicates whether each agency has listed any ingredient as a carcinogen.

| Chemical name | New Zealand | IARC |
|-------------------------------|-------------|---------|
| Hydrochloric acid - 7647-01-0 | - | Group 3 |

Legend

IARC (International Agency for Research on Cancer)

Group 3 - Not Classifiable as to Carcinogenicity in Humans

| | |
|---------------------------------|---|
| Reproductive toxicity | Contains a known or suspected reproductive toxin. Classification based on data available for ingredients. May damage fertility or the unborn child. |
| STOT - single exposure | Based on available data, the classification criteria are not met. |
| Respiratory irritation | Based on available data, the classification criteria are not met. |
| Narcotic effects | Based on available data, the classification criteria are not met. |
| STOT - repeated exposure | Based on available data, the classification criteria are not met. |
| Aspiration hazard | Based on available data, the classification criteria are not met. |

SECTION 12: Ecological information**Ecotoxicity**

Ecotoxicity Harmful to aquatic life with long lasting effects.

Aquatic ecotoxicity

Unknown aquatic toxicity 0 % of the mixture consists of component(s) of unknown hazards to the aquatic environment.

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|-------------------|---|--|--|
| Trade secret | EC50: 2.6 - 21.8mg/L (96h, Pseudokirchneriella subcapitata) EC50: =158mg/L (96h, Desmodemus subspicatus) | LC50: =340mg/L (96h, Limanda limanda) | LC50: 1085 - 1402mg/L (48h, Daphnia magna) |
| Hydrochloric acid | - | LC50: =282mg/L (96h, Gambusia affinis) | - |

Terrestrial ecotoxicity There is no data for this product.

Persistence and degradability No information available.

Bioaccumulative potential

Bioaccumulation There is no data for this product.

Mobility in soil

Other adverse effects

No information available.

SECTION 13: Disposal considerations

Waste treatment methods

Contaminated packaging

For packages that have been in direct contact with hazardous substances, the person must ensure that the package is rendered incapable of containing any substance. It must be disposed of in a manner that is consistent with the requirements for disposal of the substance that it contained, taking into account the material the package is manufactured from.

Packages may only be reused or recycled if the package has been treated to remove any residual contents of the hazardous substance (class 1, 2, 3, 4, or 5); or the contents of the residue in the package are below the threshold for the substance to be classified as hazardous (class 6, 8, or 9 substance).

SECTION 14: Transport information

IATA Not regulated

IMDG Not regulated

Transport in bulk according to Annex II of MARPOL and the IBC Code
No information available

SECTION 15: Regulatory information

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

National regulations

New Zealand

| Chemical name | New Zealand HSNO Chemical Classification |
|-------------------------------|---|
| Trade secret - | 6.1D (All),6.1D (O),6.4A,6.8B,9.1D (All),9.1D (C),9.3C |
| Hydrochloric acid - 7647-01-0 | 6.1B (All),6.1B (I),6.1D (D),6.1D (O),8.1A,8.2B,8.3A,9.1D (All),9.1D (C),9.1D (F),9.3C 6.1B (All),6.1B (I),8.1A,8.2B,8.3A,9.1D (All),9.1D (C),9.1D (F),9.3C 6.1D (All),6.1D (O),8.1A,8.2B,8.3A,9.3C 6.1E (All),6.1E (D),6.1E (O),8.1A,8.2C,8.3A 6.1E (All),6.1E (O),6.3A,6.4A |

National regulations

See Section 8 for any applicable tolerable exposure limits and environmental exposure limits

Certified handlers, tracking and controlled substance license requirements

Certified handlers are required for some substances. This includes for substances requiring a controlled substance license, including Class 1 explosives, vertebrate toxic agents (9.3A, B, C), and certain fumigants. Class 6.1A and 6.1B substances such as pesticides also require Certified handlers. Please check the Health and Safety at Work Act 2015 for further information

Tracking is required for some highly hazardous substances. These substances need to be under the control of an appropriately trained person or appropriately secured. Please check the Health and Safety at Work Act 2015 for further information

Controlled substance licenses are required to possess certain class 1 (explosive) and class 6 (vertebrate toxic agents or fumigants) substances. See Part 7 of the Health and Safety at Work Regulation 2017 for more information

EPA New Zealand HSNO approval code or group standard

Not applicable

International Inventories

Contact supplier for inventory compliance status

Legend:**International Regulations**

The Montreal Protocol on Substances that Deplete the Ozone Layer Not applicable

The Stockholm Convention on Persistent Organic Pollutants Not applicable

The Rotterdam Convention Not applicable

SECTION 16: Other information**Prepared By**

Bio-Rad Laboratories, Environmental Health and Safety

Revision date

06-Jan-2021

Revision Note

*** Indicates this information has changed since the previous revision.

Key or legend to abbreviations and acronyms used in the safety data sheet**Legend Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

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

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)

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 (IUCLID)
Japan GHS Classification
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
RTECS (Registry of Toxic Effects of Chemical Substances)
World Health Organization

Disclaimer

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End of Safety Data Sheet