

# KIT SAFETY DATA SHEET



**Kit Product Name** Lyphocheck Urine Metals Control

**Kit Catalogue Number(s)** 402X

**Revision date** 11-Jun-2021

## Kit Contents

Catalogue Number(s)	Product Name
400	Lyphocheck Urine Metals Control, Level 1
405	Lyphocheck Urine Metals Control, Level 2



# SAFETY DATA SHEET

Revision date 11-Jun-2021

Revision Number 1

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

### Product identifier

**Product Name** Lyphochek Urine Metals Control, Level 1

**Catalogue Number(s)** 400

### 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 Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad Laboratories Inc.  
9500 Jeronimo Road  
Irvine, California 92618  
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

<b>Skin corrosion/irritation</b>	Category 2 (HSNO - 6.3A)
<b>Serious eye damage/eye irritation</b>	Category 2A (HSNO - 6.4A)
<b>Acute aquatic toxicity</b>	Category 3 (HSNO - 9.1D)
<b>Chronic aquatic toxicity</b>	Category 3 (HSNO - 9.1C)

### Label elements



#### **Signal word**

Warning

#### **Hazard statements**

H315 - Causes skin irritation

H319 - Causes serious eye irritation

H412 - Harmful to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Wash face, hands and any exposed skin thoroughly after handling  
Avoid release to the environment  
Wear protective gloves/protective clothing/eye protection/face protection

**Precautionary Statements - Response****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

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Other hazards which do not result in classification**

Contains components derived from human urine

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

Chemical name	CAS No	Weight-%
Trichloroacetic acid	76-03-9	1 - 2.5
Phenol	108-95-2	0.3 - 0.999
Non-hazardous ingredients	Proprietary	Balance

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

<b>General advice</b>	Show this safety data sheet to the doctor in attendance. Contains components derived from human urine.
<b>Inhalation</b>	Remove to fresh air. Get medical attention immediately if symptoms occur.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Keep eye wide open while rinsing. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists. Do not rub affected area.
<b>Skin contact</b>	Wash off immediately with soap and plenty of water for at least 15 minutes. Get medical attention if irritation develops and persists.
<b>Ingestion</b>	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.
<b>Self-protection of the first aider</b>	Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

<b>Symptoms</b>	May cause redness and tearing of the eyes. Burning sensation.
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**Indication of any immediate medical attention and special treatment needed**

<b>Note to doctors</b>	Contains human source material and / or potentially infectious components.
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## 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. 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** 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. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations** Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. Avoid contact with skin, eyes or clothing. 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. Store according to product and label instructions.

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

## SECTION 8: Exposure controls/personal protection

### Control parameters

#### Exposure Limits

Chemical name	New Zealand	ACGIH TLV	United Kingdom	Australia
Trichloroacetic acid 76-03-9	TWA: 1 ppm TWA: 6.7 mg/m <sup>3</sup>	TWA: 0.5 ppm	-	1 ppm 6.7 mg/m <sup>3</sup>
Phenol 108-95-2	TWA: 5 ppm Skin	TWA: 5 ppm S*	TWA: 2 ppm TWA: 7.8 mg/m <sup>3</sup> STEL: 4 ppm STEL: 16 mg/m <sup>3</sup> Sk*	1 ppm 4 mg/m <sup>3</sup>

#### Biological occupational exposure limits

Chemical name	New Zealand	ACGIH
Phenol 108-95-2	120 mg/g creatinine - urine (Phenol) - end of shift	250 mg/g creatinine - urine (Phenol with hydrolysis) - end of shift

### 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. Impervious 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** Solid  
**Appearance** powder or cake, lyophilised  
**Colour** yellow  
**Odour** Slight.  
**Odour threshold** No information available

<u>Property</u>	<u>Values</u>	<u>Remarks • Method</u>
pH	4.9-5.1	

Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
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	Soluble 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.	
<b>Other information</b>		
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 Strong acids. Strong bases. Strong oxidising agents.

### 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**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	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.

**Acute toxicity****Numerical measures of toxicity**

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

**ATEmix (dermal)** 92,145.60 mg/kg

**Product Information****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trichloroacetic acid	= 3320 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Phenol	= 340 mg/kg ( Rat ) = 317 mg/kg ( Rat )	= 630 mg/kg ( Rabbit )	= 316 mg/m <sup>3</sup> ( Rat ) 4 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. Irritating to skin.

**Product Information**

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes serious eye irritation.

**Product Information****Product Information**

**Germ cell mutagenicity** Based on available data, the classification criteria are not met.

**Product Information****Carcinogenicity**

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

Chemical name	New Zealand	IARC
Trichloroacetic acid - 76-03-9	Suspected carcinogen	Group 2B
Phenol - 108-95-2	-	Group 3

**Legend**

**IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**Product Information**

**Reproductive toxicity** Based on available data, the classification criteria are not met.

## Product Information

**STOT - single exposure** Based on available data, the classification criteria are not met.

## Product Information

**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.

## Product Information

**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
Phenol	EC50: 0.0188 - 0.1044mg/L (96h, <i>Pseudokirchneriella subcapitata</i> ) EC50: 187 - 279mg/L (72h, <i>Desmodesmus subspicatus</i> ) EC50: =46.42mg/L (96h, <i>Pseudokirchneriella subcapitata</i> )	LC50: 11.9 - 25.3mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: 11.9 - 50.5mg/L (96h, <i>Pimephales promelas</i> ) LC50: 20.5 - 25.6mg/L (96h, <i>Pimephales promelas</i> ) LC50: 23.4 - 36.6mg/L (96h, <i>Oryzias latipes</i> ) LC50: 33.9 - 43.3mg/L (96h, <i>Oryzias latipes</i> ) LC50: 34.09 - 47.64mg/L (96h, <i>Poecilia reticulata</i> ) LC50: 4.23 - 7.49mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 5.0 - 12.0mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 5.449 - 6.789mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 7.5 - 14mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: =0.00175mg/L (96h, <i>Cyprinus carpio</i> ) LC50: =11.5mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =13.5mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =27.8mg/L (96h, <i>Brachydanio rerio</i> ) LC50: =31mg/L (96h, <i>Poecilia reticulata</i> ) LC50: =32mg/L (96h, <i>Pimephales promelas</i> )	EC50: 10.2 - 15.5mg/L (48h, <i>Daphnia magna</i> ) EC50: 4.24 - 10.7mg/L (48h, <i>Daphnia magna</i> )

## Product Information

## Terrestrial ecotoxicity

Chemical name	Earthworm	Avian	Honeybees
Trichloroacetic acid	Acute Toxicity: LC50 = 1139.9 mg/kg ( <i>Eisenia foetida</i> , 14 Days soil dry weight) Acute Toxicity: LC50 = 0.0964 mg/cm2 ( <i>Eisenia foetida</i> , 48 h)	-	-



	filter paper)		
Phenol	Acute Toxicity: LC100 = 6900 mg/kg (Eisenia foetida, 56 Days soil dry weight)	-	-

**Persistence and degradability** No information available.

#### Bioaccumulative potential

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

Chemical name	Partition coefficient
Phenol	1.5

#### 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
Trichloroacetic acid - 76-03-9	6.1D (All),6.1D (O),8.1A,8.2A,8.3A,9.1A (All),9.1A (A),9.1B (C),9.2A,9.3B
Phenol - 108-95-2	6.1B (All),6.1B (I),6.1C (D),6.1C (O),6.6A,6.8B,6.9A (All),6.9A (D),6.9A (O),8.2B,8.3A,9.1D (All),9.1D (A),9.1D (C),9.1D (F),9.2D,9.3B 6.1B (All),6.1B (I),6.1C (D),6.1C (O),6.6B,6.8B,6.9A (All),6.9A

	(D),6.9A (O),8.2B,8.3A,9.1D (All),9.1D (A),9.1D (C),9.1D (F),9.2D,9.3B 6.1B (All),6.1B (I),6.1C (O),6.1C (D),6.6A,6.8B,6.9A (All),6.9A (O),6.9A (D),8.2B,8.3A,9.1D (All),9.1D (A),9.1D (C),9.1D (F),9.2D,9.3B
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**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**

**The Rotterdam Convention**

**SECTION 16: Other information****Prepared By**

Bio-Rad Laboratories, Environmental Health and Safety

**Revision date**

11-Jun-2021

**Revision Note**

Significant changes throughout SDS. Review all sections.

**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 11-Jun-2021

Revision Number 1

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

### Product identifier

**Product Name** Lyphocheck Urine Metals Control, Level 2

**Catalogue Number(s)** 405

### 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 Inc.  
1000 Alfred Nobel Drive  
Hercules, CA 94547  
USA

#### Manufacturer

Bio-Rad Laboratories Inc.  
9500 Jeronimo Road  
Irvine, California 92618  
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 - Oral	Category 5 (HSNO - 6.1E)
Skin corrosion/irritation	Category 2 (HSNO - 6.3A)
Serious eye damage/eye irritation	Category 1 (HSNO - 8.3A)
Germ cell mutagenicity	Category 2 (HSNO - 6.6B)
Specific target organ toxicity — repeated exposure	Category 2 (HSNO - 6.9B)
Acute aquatic toxicity	Category 2 (HSNO - 9.1D)
Chronic aquatic toxicity	Category 2 (HSNO - 9.1B)

### Label elements



**Signal word**  
Danger

**Hazard statements**

H303 - May be harmful if swallowed

H315 - Causes skin irritation

H318 - Causes serious eye damage

H341 - Suspected of causing genetic defects

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

**Precautionary Statements - Prevention**

Wear protective gloves/protective clothing/eye protection/face protection

Wash face, hands and any exposed skin thoroughly after handling

Do not breathe dust/fume/gas/mist/vapours/spray

Avoid release to the environment

**Precautionary Statements - Response**

IF exposed or concerned: Get medical advice/attention

**Eyes**

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

Immediately call a POISON CENTRE or doctor

**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

**Spill**

Collect spillage

**Precautionary Statements - Disposal**

Dispose of contents/container in accordance with local, regional, national, and international regulations as applicable

**Other hazards which do not result in classification**

Contains components derived from human urine

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

Chemical name	CAS No	Weight-%
Trichloroacetic acid	76-03-9	2.5 - 5
Phenol	108-95-2	1 - 2.5
Non-hazardous ingredients	Proprietary	Balance

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

Immediate medical attention is required. Show this safety data sheet to the doctor in attendance. Contains components derived from human urine.

**Inhalation**

Remove to fresh air. Get medical attention immediately if symptoms occur.

**Eye contact**

Get immediate medical advice/attention. 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.

**Skin contact**

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

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a doctor.

**Self-protection of the first aider** Avoid contact with skin, eyes or clothing. Wear personal protective clothing (see section 8).

**Most important symptoms and effects, both acute and delayed**

**Symptoms** Burning sensation.

**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. Use personal protective equipment as required. Ensure adequate ventilation. Evacuate personnel to safe areas.

**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**

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. Ensure adequate ventilation. Take off contaminated clothing and wash it before reuse.

**General hygiene considerations**

Avoid contact with skin, eyes or clothing. Wear suitable gloves and eye/face protection. Do not eat, drink or smoke when using this product. 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. Store locked up. Keep out of the reach of children. Store according to product and label instructions.

**Incompatible materials**

Strong acids. Strong bases. Strong oxidising agents.

**SECTION 8: Exposure controls/personal protection****Control parameters****Exposure Limits**

Chemical name	New Zealand	ACGIH TLV	United Kingdom	Australia
Trichloroacetic acid 76-03-9	TWA: 1 ppm TWA: 6.7 mg/m <sup>3</sup>	TWA: 0.5 ppm	-	1 ppm 6.7 mg/m <sup>3</sup>
Phenol 108-95-2	TWA: 5 ppm Skin	TWA: 5 ppm S*	TWA: 2 ppm TWA: 7.8 mg/m <sup>3</sup> STEL: 4 ppm STEL: 16 mg/m <sup>3</sup> Sk*	1 ppm 4 mg/m <sup>3</sup>

**Biological occupational exposure limits**

Chemical name	New Zealand	ACGIH
Phenol 108-95-2	120 mg/g creatinine - urine (Phenol) - end of shift	250 mg/g creatinine - urine (Phenol with hydrolysis) - end of shift

**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. Impervious 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	Solid
Appearance	powder or cake, lyophilised
Colour	yellow
Odour	Slight.
Odour threshold	No information available

Property	Values	Remarks • Method
pH	4.9-5.1	
Melting point / freezing point	No data available	None known
Boiling point / boiling range	No data available	None known
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	Soluble 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.
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### Chemical stability

Stability	Stable under normal conditions.
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### Explosion data

Sensitivity to mechanical impact	None.
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Sensitivity to static discharge	None.
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### Possibility of hazardous reactions

Possibility of hazardous reactions	None under normal processing.
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### Conditions to avoid

Conditions to avoid	None known based on information supplied.
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**Incompatible materials**

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

**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**

<b>Inhalation</b>	Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.
<b>Eye contact</b>	Specific test data for the substance or mixture is not available. Causes serious eye damage. May cause irreversible damage to eyes. (based on components).
<b>Skin contact</b>	Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).
<b>Ingestion</b>	Specific test data for the substance or mixture is not available. Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea. May be harmful if swallowed.

**Symptoms** Redness. Burning. May cause blindness. May cause redness and tearing of the eyes.

**Acute toxicity****Numerical measures of toxicity**

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

<b>ATEmix (oral)</b>	2,453.90 mg/kg
<b>ATEmix (dermal)</b>	8,669.70 mg/kg
<b>ATEmix (inhalation-dust/mist)</b>	11.90 mg/l

**Product Information****Component Information**

Chemical name	Oral LD50	Dermal LD50	Inhalation LC50
Trichloroacetic acid	= 3320 mg/kg ( Rat )	> 2000 mg/kg ( Rat )	-
Phenol	= 340 mg/kg ( Rat ) = 317 mg/kg ( Rat )	= 630 mg/kg ( Rabbit )	= 316 mg/m <sup>3</sup> ( Rat ) 4 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. Irritating to skin.

**Product Information**

**Serious eye damage/eye irritation** Classification based on data available for ingredients. Causes burns. Risk of serious damage to eyes.

**Product Information****Product Information**

**Germ cell mutagenicity** Contains a known or suspected mutagen. Classification based on data available for ingredients. Suspected of causing genetic defects.

**Product Information**

**Carcinogenicity**

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

Chemical name	New Zealand	IARC
Trichloroacetic acid - 76-03-9	Suspected carcinogen	Group 2B
Phenol - 108-95-2	-	Group 3

**Legend****IARC (International Agency for Research on Cancer)**

Group 1 - Carcinogenic to Humans

Group 2A - Probably Carcinogenic to Humans

Group 2B - Possibly Carcinogenic to Humans

Group 3 - Not Classifiable as to Carcinogenicity in Humans

**Product Information****Reproductive toxicity**

Based on available data, the classification criteria are not met.

**Product Information****STOT - single exposure**

Based on available data, the classification criteria are not met.

**Product Information****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**

May cause damage to organs through prolonged or repeated exposure.

**Product Information****Aspiration hazard**

Based on available data, the classification criteria are not met.

**SECTION 12: Ecological information****Ecotoxicity****Ecotoxicity**

Toxic 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
Phenol	EC50: 0.0188 - 0.1044mg/L (96h, <i>Pseudokirchneriella subcapitata</i> ) EC50: 187 - 279mg/L (72h, <i>Desmodesmus subspicatus</i> ) EC50: =46.42mg/L (96h, <i>Pseudokirchneriella subcapitata</i> )	LC50: 11.9 - 25.3mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: 11.9 - 50.5mg/L (96h, <i>Pimephales promelas</i> ) LC50: 20.5 - 25.6mg/L (96h, <i>Pimephales promelas</i> ) LC50: 23.4 - 36.6mg/L (96h, <i>Oryzias latipes</i> ) LC50: 33.9 - 43.3mg/L (96h, <i>Oryzias latipes</i> ) LC50: 34.09 - 47.64mg/L (96h, <i>Poecilia reticulata</i> ) LC50: 4.23 - 7.49mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 5.0 - 12.0mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 5.449 - 6.789mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: 7.5 - 14mg/L (96h, <i>Oncorhynchus mykiss</i> ) LC50: =0.00175mg/L (96h, <i>Cyprinus carpio</i> ) LC50: =11.5mg/L (96h, <i>Lepomis macrochirus</i> )	EC50: 10.2 - 15.5mg/L (48h, <i>Daphnia magna</i> ) EC50: 4.24 - 10.7mg/L (48h, <i>Daphnia magna</i> )

		LC50: =13.5mg/L (96h, <i>Lepomis macrochirus</i> ) LC50: =27.8mg/L (96h, <i>Brachydanio rerio</i> ) LC50: =31mg/L (96h, <i>Poecilia reticulata</i> ) LC50: =32mg/L (96h, <i>Pimephales promelas</i> )	
Product Information			

**Terrestrial ecotoxicity**

Chemical name	Earthworm	Avian	Honeybees
Trichloroacetic acid	Acute Toxicity: LC50 = 1139.9 mg/kg ( <i>Eisenia foetida</i> , 14 Days soil dry weight) Acute Toxicity: LC50 = 0.0964 mg/cm <sup>2</sup> ( <i>Eisenia foetida</i> , 48 h filter paper)	-	-
Phenol	Acute Toxicity: LC100 = 6900 mg/kg ( <i>Eisenia foetida</i> , 56 Days soil dry weight)	-	-

**Persistence and degradability** No information available.

**Bioaccumulative potential**

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

Chemical name	Partition coefficient
Phenol	1.5

**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  
**UN number or ID number** 1759  
**Packing group** III

**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
Trichloroacetic acid - 76-03-9	6.1D (All),6.1D (O),8.1A,8.2A,8.3A,9.1A (All),9.1A (A),9.1B (C),9.2A,9.3B
Phenol - 108-95-2	6.1B (All),6.1B (I),6.1C (D),6.1C (O),6.6A,6.8B,6.9A (All),6.9A (D),6.9A (O),8.2B,8.3A,9.1D (All),9.1D (A),9.1D (C),9.1D (F),9.2D,9.3B 6.1B (All),6.1B (I),6.1C (D),6.1C (O),6.6B,6.8B,6.9A (All),6.9A (D),6.9A (O),8.2B,8.3A,9.1D (All),9.1D (A),9.1D (C),9.1D (F),9.2D,9.3B 6.1B (All),6.1B (I),6.1C (O),6.1C (D),6.6A,6.8B,6.9A (All),6.9A (O),6.9A (D),8.2B,8.3A,9.1D (All),9.1D (A),9.1D (C),9.1D (F),9.2D,9.3B

#### 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

The Rotterdam Convention

## SECTION 16: Other information

#### Prepared By

Bio-Rad Laboratories, Environmental Health and Safety

#### Revision date

11-Jun-2021

#### Revision Note

Significant changes throughout SDS. Review all sections.

**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**