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

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

General advice 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 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.

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 May cause redness and tearing of the eyes. 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. 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^3	TWA: 0.5 ppm	-	1 ppm 6.7 mg/m^3
Phenol 108-95-2	TWA: 5 ppm Skin	TWA: 5 ppm S*	TWA: 2 ppm TWA: 7.8 mg/m^3 STEL: 4 ppm STEL: 16 mg/m^3 Sk*	1 ppm 4 mg/m^3

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.

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

Inhalation Specific test data for the substance or mixture is not available. May cause irritation of respiratory tract.

Eye contact Specific test data for the substance or mixture is not available. Irritating to eyes. (based on components). Causes serious eye irritation.

Skin contact Specific test data for the substance or mixture is not available. Causes skin irritation. (based on components).

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.

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/m³ (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, Pseudokirchneriella subcapitata) EC50: 187 - 279mg/L (72h, Desmodesmus subspicatus) EC50: =46.42mg/L (96h, Pseudokirchneriella subcapitata)	LC50: 11.9 - 25.3mg/L (96h, Lepomis macrochirus) LC50: 11.9 - 50.5mg/L (96h, Pimephales promelas) LC50: 20.5 - 25.6mg/L (96h, Pimephales promelas) LC50: 23.4 - 36.6mg/L (96h, Oryzias latipes) LC50: 33.9 - 43.3mg/L (96h, Oryzias latipes) LC50: 34.09 - 47.64mg/L (96h, Poecilia reticulata) LC50: 4.23 - 7.49mg/L (96h, Oncorhynchus mykiss) LC50: 5.0 - 12.0mg/L (96h, Oncorhynchus mykiss) LC50: 5.449 - 6.789mg/L (96h, Oncorhynchus mykiss) LC50: 7.5 - 14mg/L (96h, Oncorhynchus mykiss) LC50: =0.00175mg/L (96h, Cyprinus carpio) LC50: =11.5mg/L (96h, Lepomis macrochirus) LC50: =13.5mg/L (96h, Lepomis macrochirus)	EC50: 10.2 - 15.5mg/L (48h, Daphnia magna) EC50: 4.24 - 10.7mg/L (48h, Daphnia magna)

		LC50: =27.8mg/L (96h, Brachydanio rerio) LC50: =31mg/L (96h, Poecilia reticulata) LC50: =32mg/L (96h, Pimephales promelas)	
Product Information			

Terrestrial ecotoxicty

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

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

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End of Safety Data Sheet