

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 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

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 New Zealand

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 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 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 |

| <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. | |

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. Causes serious eye damage. May cause irreversible damage to eyes. (based on components). |
| 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. 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

| | |
|--------------------------------------|----------------|
| ATEmix (oral) | 2,453.90 mg/kg |
| ATEmix (dermal) | 8,669.70 mg/kg |
| ATEmix (inhalation-dust/mist) | 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 ³ (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, 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, | EC50: 10.2 - 15.5mg/L (48h, Daphnia magna) EC50: 4.24 - 10.7mg/L (48h, Daphnia magna) |

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

Terrestrial ecotoxicity

| 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
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

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End of Safety Data Sheet