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Version 1

Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product Identifier

Perihalan Produk:

Product Description:

Cat No.:

BactiCard E.coli

BactiCard E.coli

R21108

Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals. Uses advised against No Information available

Details of the supplier of the safety data sheet

Company Thermo Scientific Microbiology Sdn Bhd

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Cheng, 75250 Melaka, Malaysia

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CHEMTREC Malaysia (Kuala Lumpur) +(60)-327884561 (Malay)

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

Substances/mixtures corrosive to metal	Category 1 (H290)
Acute oral toxicity	Category 4 (H302)
Acute dermal toxicity	Category 4 (H312)
Skin Corrosion/Irritation	Category 2 (H315)
Serious Eye Damage/Eye Irritation	Category 1 (H318)

Label Elements



Signal Word Danger

Hazard Statements

H290 - May be corrosive to metals

H302 - Harmful if swallowed

H312 - Harmful in contact with skin

H315 - Causes skin irritation

H318 - Causes serious eye damage

Precautionary Statements

P302 + P352 - IF ON SKIN: Wash with plenty of soap and water

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P280 - Wear protective gloves/protective clothing/eye protection/face protection

Other Hazards

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Sodium hydroxide	1310-73-2	3.85
Oxalic acid dihydrate	6153-56-6	68.81

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.

Eye Contact Immediate medical attention is required. Rinse immediately with plenty of water, also under

the eyelids, for at least 15 minutes. Keep eye wide open while rinsing.

Skin Contact Wash off immediately with plenty of water for at least 15 minutes. Get medical attention.

Ingestion Immediate medical attention is required. Clean mouth with water and drink afterwards

plenty of water. Do NOT induce vomiting.

Inhalation Remove to fresh air. Get medical attention immediately if symptoms occur. If not breathing,

give artificial respiration. If breathing is difficult, give oxygen. Call a physician or poison

control center immediately.

Self-Protection of the First Aider Ensure that medical personnel are aware of the material(s) involved, take precautions to

protect themselves and prevent spread of contamination.

Most important symptoms and effects, both acute and delayed

Causes eye burns.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

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

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors. In the event of fire and/or explosion do not breathe fumes.

Hazardous Combustion Products

Thermal decomposition can lead to release of irritating gases and vapors.

Advice for fire-fighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

Do not get in eyes, on skin, or on clothing. Wear protective gloves/clothing and eye/face protection. Ensure adequate ventilation.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains.

Methods and Material for Containment and Cleaning Up

Soak up with inert absorbent material. After cleaning, flush away traces with water. Keep in suitable, closed containers for disposal.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Do not get in eyes, on skin, or on clothing. Ensure adequate ventilation. Wear personal protective equipment/face protection.

Conditions for Safe Storage, Including any Incompatibilities

Keep containers tightly closed in a dry, cool and well-ventilated place. Keep in properly labeled containers.

Specific End Uses

Use in laboratories.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

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Control Parameters

Component	Malaysia	ACGIH TLV	OSHA PEL
Sodium hydroxide		Ceiling: 2 mg/m ³	(Vacated) Ceiling: 2 mg/m ³ TWA: 2 mg/m ³
Oxalic acid dihydrate		TWA: 1 mg/m³ STEL: 2 mg/m³	

Component	European Union	The United Kingdom	Germany	
Sodium hydroxide		2 mg/m³ STEL	2 mg/m ³ TWA (inhalable fraction)	

Exposure Controls

Engineering Measures

Handle only in a place equipped with local exhaust (or other appropriate exhaust). Ensure that eyewash stations and safety showers are close to the workstation location.

Wherever possible, engineering control measures such as the isolation or enclosure of the process, the introduction of process or equipment changes to minimise release or contact, and the use of properly designed ventilation systems, should be adopted to control hazardous materials at source

Personal protective equipment

Eye Protection Goggles

Hand Protection Protective gloves

Skin and body protection Impervious clothing Chemical resistant apron Boots Impervious gloves

Inspect gloves before use.

Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves. (Refer to manufacturer/supplier for information)

Ensure gloves are suitable for the task: Chemical compatability, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion.

Remove gloves with care avoiding skin contamination.

Respiratory Protection When workers are facing concentrations above the exposure limit they must use

appropriate certified respirators

To protect the wearer, respiratory protective equipment must be the correct fit and be used

and maintained properly

When RPE is used a face piece Fit Test should be conducted

Hygiene Measures Keep away from food, drink and animal feeding stuffs When using do not eat, drink or

smoke Contaminated work clothing should not be allowed out of the workplace Provide regular cleaning of equipment, work area and clothing Avoid contact with skin, eyes or clothing Remove and wash contaminated clothing and gloves, including the inside, before

re-use Wear suitable gloves and eye/face protection

Environmental exposure controls No information available

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance

Physical State Liquid

Odor No information available
Odor Threshold No data available
pH Not applicable

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Liquid

No data available Melting Point/Range **Softening Point** No data available **Boiling Point/Range** Not applicable Flash Point Not applicable

Method - No information available

No data available **Evaporation Rate** Flammability (solid,gas) Not applicable

Liquid **Explosion Limits** No data available

Vapor Pressure No data available **Vapor Density** No data available

(Air = 1.0)Specific Gravity / Density No data available

Bulk Density Not applicable Soluble in water Water Solubility

Solubility in other solvents No information available

Partition Coefficient (n-octanol/water)

Autoignition Temperature No data available No data available **Decomposition Temperature** No data available **Viscosity**

Explosive Properties No information available No information available **Oxidizing Properties**

SECTION 10: STABILITY AND REACTIVITY

Reactivity

None known, based on information available.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous polymerization does not occur. **Hazardous Reactions**

None under normal processing.

Conditions to Avoid

Exposure to air or moisture over prolonged periods.

Incompatible Materials

None known.

Hazardous Decomposition Products

Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Sodium hydroxide	LD50 = 325 mg/kg (Rat)	LD50 = 1350 mg/kg (Rabbit)	
Oxalic acid dihydrate	LD50 = 375 mg/kg (Rat)		

Chronic Toxicity

Carcinogenicity There are no known carcinogenic chemicals in this product

SensitizationNo information availableMutagenic EffectsNo information availableReproductive EffectsNo information availableDevelopmental EffectsNo information availableTarget OrgansNo information available

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity effects

. Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

	Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
	Sodium hydroxide	Sodium hydroxide LC50: = 45.4 mg/L, 96h static (Oncorhynchus mykiss)		-	-
, , ,		LC50 = 160 mg/L/48h (Carassius auratus)			

Persistence and degradability

Persistence Soluble in water, Persistence is unlikely, based on information available.

Bioaccumulative potential Bioaccumulation is unlikely

the environment due to its water solubility. Highly mobile in soils.

Other adverse effects No information available

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Waste from Residues/Unused

Products

Dispose of in accordance with federal, state and local regulations Waste is classified as hazardous Dispose of in accordance with the European Directives on waste and hazardous

waste Dispose of in accordance with local regulations

Contaminated Packaging Dispose of this container to hazardous or special waste collection point.

Other Information Waste codes should be assigned by the user based on the application for which the product

was used Do not empty into drains Do not flush to sewer

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

UN-No UN1824 Hazard Class 8 Packing Group II

Proper Shipping Name Sodium hydroxide solution

Road and Rail Transport

UN-No UN1824 Hazard Class 8 Packing Group II

Proper Shipping Name Sodium hydroxide solution

<u>IATA</u>

UN-No UN1824
Hazard Class 8
Packing Group II

Proper Shipping Name Sodium hydroxide solution

Special Precautions for User No special precautions required

SECTION 15: REGULATORY INFORMATION

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

International Inventories X = listed

Component	EINECS	TSCA	DSL	PICCS	ENCS	ISHL	IECSC	AICS	KECL
Sodium hydroxide	215-185-5	Х	Х	Х	X	X	Χ	Χ	KE-31487
Oxalic acid dihydrate	-	-	-	Х	X	X	Χ	Χ	-

Component	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Major Accident Notification	Seveso III Directive (2012/18/EC) - Qualifying Quantities for Safety Report Requirements	Rotterdam Convention (PIC)	Basel Convention (Hazardous Waste)
Sodium hydroxide				Annex I - Y35

National Regulations

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Persistent Organic Pollutant Ozone Depletion Potential

This product does not contain any known or suspected substance This product does not contain any known or suspected substance

Substances List

SECTION 16: OTHER INFORMATION

Legend

CAS - Chemical Abstracts Service

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

ENCS - Japanese Existing and New Chemical Substances

EINECS/ELINCS - European Inventory of Existing Commercial Chemical DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances/EU List of Notified Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

IECSC - Chinese Inventory of Existing Chemical Substances **KECL** - Korean Existing and Evaluated Chemical Substances

WEL - Workplace Exposure Limit

ACGIH - American Conference of Governmental Industrial Hygienists

RPE - Respiratory Protective Equipment LC50 - Lethal Concentration 50%

POW - Partition coefficient Octanol:Water

TWA - Time Weighted Average

IARC - International Agency for Research on Cancer

AICS - Australian Inventory of Chemical Substances

NZIoC - New Zealand Inventory of Chemicals

LD50 - Lethal Dose 50%

EC50 - Effective Concentration 50%

ADR - European Agreement Concerning the International Carriage of Dangerous Goods by Road

IMO/IMDG - International Maritime Organization/International Maritime Dangerous Goods Code

OECD - Organisation for Economic Co-operation and Development

BCF - Bioconcentration factor

ICAO/IATA - International Civil Aviation Organization/International Air **Transport Association**

MARPOL - International Convention for the Prevention of Pollution from

ATE - Acute Toxicity Estimate VOC - (Volatile Organic Compound)

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Revision Date 28-Mar-2023

Revision Summary Update to CLP Format.

In accordance with local and national regulations: Occupational Safety and Health (Classification, Labelling and Safety Data Sheet of Hazardous Chemicals) Regulations 2013

Disclaimer

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End of Safety Data Sheet