

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

Perihal Produk: **MacConkey Agar Base with MUG**  
Product Description: **MacConkey Agar Base with MUG**  
Cat No. : R453842

**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  
No.6, Jalan TTC 6, Taman Teknologi Cheng,  
Cheng, 75250 Melaka, Malaysia  
+606 334 0975 .

Supplier Remel  
12076 Santa Fe Drive Lenexa,  
KS 66215 United States  
Telephone: 1-800-255-6730  
Fax: 1-800-621-8251

E-mail address mbd-sds@thermofisher.com

**Emergency Telephone Number**

(603) 5122 8888  
CHEMTREC Malaysia **1-800-815-308** (Malay)  
CHEMTREC Malaysia (Kuala Lumpur) **+(60)-327884561** (Malay)

**SECTION 2: HAZARDS IDENTIFICATION****Classification of the substance or mixture****Label Elements****Hazard Statements****Precautionary Statements****Other Hazards**

This product does not contain any known or suspected endocrine disruptors

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

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Component	CAS No	Weight %
Ethyl alcohol	64-17-5	0.98
Diocetyl sodium sulfosuccinate	577-11-7	0.1
C.I. Basic violet 1	548-62-9	0.003
Sodium carbonate	497-19-8	0.5
Methyl alcohol	67-56-1	0.52
Agar	9002-18-0	24.53
Sodium chloride	7647-14-5	7.88
.beta.-D-Lactose	63-42-3	19.69
Yeast, ext.	8013-01-2	8.86
Peptones, connective tissue	102506-13-8	7.88
2,8-Phenazinediamine, N8,N8,3-trimethyl-, monohydrochloride	553-24-2	0.06
Caseins, hydrolyzates	65072-00-6	4.93

## SECTION 4: FIRST AID MEASURES

### Description of first aid measures

**Eye Contact** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.

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

**Ingestion** Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.

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

**Self-Protection of the First Aider** No special precautions required.

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

None reasonably foreseeable.

### Indication of any immediate medical attention and special treatment needed

**Notes to Physician** Treat symptomatically.

## SECTION 5: FIREFIGHTING MEASURES

### Extinguishing media

#### **Suitable Extinguishing Media**

Water spray, carbon dioxide (CO<sub>2</sub>), dry chemical, alcohol-resistant foam.

#### **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.

### **Hazardous Combustion Products**

None under normal use conditions.

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## 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

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

### Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

### Methods and Material for Containment and Cleaning Up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

### Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

## SECTION 7: HANDLING AND STORAGE

### Precautions for Safe Handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

### Conditions for Safe Storage, Including any Incompatibilities

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

### Specific End Uses

Use in laboratories.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### Control Parameters

Component	Malaysia	ACGIH TLV	OSHA PEL
Ethyl alcohol		STEL: 1000 ppm	(Vacated) TWA: 1000 ppm (Vacated) TWA: 1900 mg/m <sup>3</sup> TWA: 1000 ppm TWA: 1900 mg/m <sup>3</sup>
Methyl alcohol		TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m <sup>3</sup> (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m <sup>3</sup> Skin TWA: 200 ppm TWA: 260 mg/m <sup>3</sup>

Component	European Union	The United Kingdom	Germany
Ethyl alcohol		TWA: 1000 ppm TWA; 1920 mg/m <sup>3</sup> TWA WEL - STEL: 3000 ppm STEL; 5760 mg/m <sup>3</sup> STEL	200 ppm TWA MAK; 380 mg/m <sup>3</sup> TWA MAK
Methyl alcohol	TWA: 200 ppm 8 hr	WEL - TWA: 200 ppm TWA; 266	100 ppm TWA MAK; 130 mg/m <sup>3</sup>

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	TWA: 260 mg/m <sup>3</sup> 8 hr Skin	mg/m <sup>3</sup> TWA WEL - STEL: 250 ppm STEL; 333 mg/m <sup>3</sup> STEL	TWA MAKSkin absorber
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## Exposure Controls

### Engineering Measures

None under normal use conditions.

## Personal protective equipment

### Eye Protection

Wear safety glasses with side shields (or goggles)

### Hand Protection

Protective gloves

### Skin and body protection

Long sleeved clothing

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

No protective equipment is needed under normal use conditions

### Recommended Filter type:

Particle filter

## Hygiene Measures

Handle in accordance with good industrial hygiene and safety practice

## Environmental exposure controls

No information available

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

#### Appearance

#### Physical State

Powder Solid

#### Odor

No information available

#### Odor Threshold

No data available

#### pH

No information available

#### Melting Point/Range

No data available

#### Softening Point

No data available

#### Boiling Point/Range

No information available

#### Flash Point

No information available

**Method -** No information available

#### Evaporation Rate

Not applicable

Solid

#### Flammability (solid,gas)

No information available

#### Explosion Limits

No data available

#### Vapor Pressure

No data available

#### Vapor Density

Not applicable

Solid

#### Specific Gravity / Density

No data available

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<b>Bulk Density</b>	No data available
<b>Water Solubility</b>	No information available
<b>Solubility in other solvents</b>	No information available

## Partition Coefficient (n-octanol/water)

Component	log Pow
Ethyl alcohol	-0.32
C.I. Basic violet 1	0.51
Methyl alcohol	-0.74

<b>Autoignition Temperature</b>	No data available	
<b>Decomposition Temperature</b>	No data available	
<b>Viscosity</b>	Not applicable	Solid
<b>Explosive Properties</b>	No information available	
<b>Oxidizing Properties</b>	No information available	

**VOC Content(%)** 1.5

## SECTION 10: STABILITY AND REACTIVITY

### Reactivity

None known, based on information available.

### Chemical Stability

Stable under normal conditions.

### Possibility of Hazardous Reactions

<b>Hazardous Polymerization</b>	Hazardous polymerization does not occur.
<b>Hazardous Reactions</b>	None under normal processing.

### Conditions to Avoid

Incompatible products. Excess heat. Avoid dust formation.

### Incompatible Materials

None known.

### Hazardous Decomposition Products

None under normal use conditions.

## SECTION 11: TOXICOLOGICAL INFORMATION

### Information on Toxicological Effects

#### Acute Toxicity

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## Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Ethyl alcohol	LD50 = 7060 mg/kg ( Rat )		20000 ppm/10H ( Rat )
Diocetyl sodium sulfosuccinate	>3100 mg/kg ( Rat )	>10000 mg/kg ( Rabbit )	>20.0 mg/L/4h (Rat)
C.I. Basic violet 1	LD50 = 420 mg/kg ( Rat )		
Sodium carbonate	2800 mg/kg ( Rat )	> 2000 mg/kg (rabbit)	2.3 mg/l 2h (Rat)
Methyl alcohol	LD50 = 1187 – 2769 mg/kg (Rat)	LD50 = 17100 mg/kg ( Rabbit )	LC50 = 128.2 mg/L ( Rat ) 4 h
Agar	LD50 = 11 g/kg ( Rat )		
Sodium chloride	LD50 = 3 g/kg ( Rat )	LD50 > 10000 mg/kg ( Rabbit )	LC50 > 42 mg/L ( Rat ) 1 h
.beta.-D-Lactose	LD50 > 10 g/kg ( Rat )		

## Chronic Toxicity

### Carcinogenicity

This product contains one or more substances which are classified by IARC as carcinogenic to humans (Group I), probably carcinogenic to humans (Group 2A) or possibly carcinogenic to humans (Group 2B) The table below indicates whether each agency has listed any ingredient as a carcinogen Ethanol has been shown to be carcinogenic in long-term studies only when consumed and abused as an alcoholic beverage.

Component	IARC	UK
C.I. Basic violet 1	Group 2B	

### Legend:

X - Listed '-' - Not Listed XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B))

### Sensitization

### Mutagenic Effects

### Reproductive Effects

### Developmental Effects

### Target Organs

No information available

No information available

No information available

No information available

No 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
Ethyl alcohol	Fathead minnow (Pimephales promelas) LC50 = 14200 mg/l/96h	EC50 = 9268 mg/L/48h EC50 = 10800 mg/L/24h	EC50 (72h) = 275 mg/l (Chlorella vulgaris)	Photobacterium phosphoreum:EC50 = 34634 mg/L/30 min Photobacterium phosphoreum:EC50 = 35470 mg/L/5 min
Diocetyl sodium sulfosuccinate	20-40 mg/L LC50 96 h 37 mg/L LC50 96 h 24 mg/L LC50 96 h	36 mg/L EC50 = 48 h		
C.I. Basic violet 1		EC50 = 0.24 - 5 mg/l, 48 h (Daphnia magna (Water flea)) OECD 202	EC50 = 0.025 - 0.8 mg/l, 72 h (Pseudokirchneriella subcapitata) OECD 201	

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Sodium carbonate	Lepomis macrochirus: LC50: 300 mg/L/96h Gambusia affinis: LC50: 740 mg/L/96h	EC50: = 265 mg/L, 48h (Daphnia magna)		-
Methyl alcohol	Pimephales promelas: LC50 > 10000 mg/L 96h	EC50 > 10000 mg/L 24h		EC50 = 39000 mg/L 25 min EC50 = 40000 mg/L 15 min EC50 = 43000 mg/L 5 min
Sodium chloride	Pimephals prome: LC50: 7650 mg/L/96h	EC50: 1000 mg/L/48h		

**Persistence and degradability** No information available

Component	Degradability
C.I. Basic violet 1 548-62-9 ( 0.003 )	10 %
Methyl alcohol 67-56-1 ( 0.52 )	DT50 ~ 17.2d >94% after 20d

**Bioaccumulative potential** No information available

Component	log Pow	Bioconcentration factor (BCF)
Ethyl alcohol	-0.32	No data available
Diocetyl sodium sulfosuccinate		3.47 - 3.78 dimensionless
C.I. Basic violet 1	0.51	No data available
Methyl alcohol	-0.74	<10 dimensionless

**Mobility in soil** No information available. .

**Other adverse effects** No information available

## SECTION 13: DISPOSAL CONSIDERATIONS

### Waste treatment methods

**Waste from Residues/Unused Products**

Dispose of in accordance with local regulations

### Contaminated Packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal

## SECTION 14: TRANSPORT INFORMATION

### IMDG/IMO

Not regulated

### Road and Rail Transport

Not regulated

### IATA

Not regulated

### Special Precautions for User

No special precautions required

## SECTION 15: REGULATORY INFORMATION

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## 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
Ethyl alcohol	-	X	X	X	X	X	X	X	KE-13217
Diocetyl sodium sulfosuccinate	-	X	X	X	X	X	X	X	KE-32402
C.I. Basic violet 1	-	X	X	X	X	X	X	X	KE-07006
Sodium carbonate	-	X	X	X	X	X	X	X	KE-31380
Methyl alcohol	-	X	X	X	X	X	X	X	KE-23193
Agar	-	X	X	X	-		X	X	KE-00275
Sodium chloride	-	X	X	X	X	X	X	X	KE-31387
.beta.-D-Lactose	-	X	X	X	-	X	X	X	KE-17416
Yeast, ext.	-	X	X	X	-		X	X	KE-05-1355
Peptones, connective tissue	310-118-7	-	-	-	-		-	-	KE-28132
2,8-Phenazinediamine, N8,N8,3-trimethyl-, monohydrochloride	-	X	X	X	-		X	X	-
Caseins, hydrolyzates	-	X	X	X	X	X	X	X	KE-05-0318

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)
Ethyl alcohol				Annex I - Y42
Methyl alcohol	500 tonne	5000 tonne		

### National Regulations

#### 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

## SECTION 16: OTHER INFORMATION

### Legend

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical 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

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

**DSL/NDL** - Canadian Domestic Substances List/Non-Domestic Substances List

**ENCS** - Japanese Existing and New Chemical Substances

**AICS** - Australian Inventory of Chemical Substances

**NZIoC** - New Zealand Inventory of Chemicals

**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

**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

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

**MARPOL** - International Convention for the Prevention of Pollution from Ships

**ATE** - Acute Toxicity Estimate

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BCF - Bioconcentration factor

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

29-Mar-2023

Revision Summary

Not applicable.

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

## 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**