

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**

Perihal Produk:

Gram Decolorizer

Product Description:

Gram Decolorizer

Cat No. :

R40054, R40055, R40075

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
+606 334 0975 .**Supplier**Remel
12076 Santa Fe Drive Lenexa,
KS 66215 United States
Telephone: 1-800-255-6730
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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**

Flammable liquids	Category 2 (H225)
Serious Eye Damage/Eye Irritation	Category 2 (H319)
Specific target organ toxicity - (single exposure)	Category 2 (H371) Category 3 (H336)

Label Elements

Signal Word

Danger

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Hazard Statements

H225 - Highly flammable liquid and vapor
H319 - Causes serious eye irritation
H371 - May cause damage to organs
H336 - May cause drowsiness or dizziness

Precautionary Statements

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower
P280 - Wear eye protection/ face protection
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing
P312 - Call a POISON CENTER or doctor if you feel unwell

Other Hazards

EUH066 - Repeated exposure may cause skin dryness or cracking

This product does not contain any known or suspected endocrine disruptors

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS No	Weight %
Acetone	67-64-1	50
Ethyl alcohol	64-17-5	47.5
Methyl alcohol	67-56-1	2.5

SECTION 4: FIRST AID MEASURES

Description of first aid measures

General Advice

If symptoms persist, call a physician.

Eye Contact

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

Skin Contact

If skin irritation persists, call a physician. Wash off immediately with plenty of water for at least 15 minutes.

Ingestion

Clean mouth with water and drink afterwards plenty of water.

Inhalation

Remove to fresh air. If not breathing, give artificial respiration. Get medical attention if symptoms occur.

Self-Protection of the First Aider

Remove all sources of ignition. Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Difficulty in breathing. Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

Treat symptomatically.

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SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Water mist may be used to cool closed containers.

Extinguishing media which must not be used for safety reasons

No information available.

Special hazards arising from the substance or mixture

Flammable. Containers may explode when heated. Vapors may form explosive mixtures with air. Vapors may travel to source of ignition and flash back.

Hazardous Combustion Products

None under normal use conditions.

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. Remove all sources of ignition. Take precautionary measures against static discharges.

Environmental precautions

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

Methods and Material for Containment and Cleaning Up

Soak up with inert absorbent material. Keep in suitable, closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment.

Reference to Other Sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Ensure adequate ventilation. Wear personal protective equipment/face protection. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Keep away from open flames, hot surfaces and sources of ignition. Use only non-sparking tools. To avoid ignition of vapors by static electricity discharge, all metal parts of the equipment must be grounded. Take precautionary measures against static discharges.

Conditions for Safe Storage, Including any Incompatibilities

Keep in properly labeled containers. Keep containers tightly closed in a cool, well-ventilated place. Keep container tightly closed in a dry and well-ventilated place. Keep away from heat, sparks and flame.

Specific End Uses

Use in laboratories.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

Component	Malaysia	ACGIH TLV	OSHA PEL
Acetone		TWA: 250 ppm STEL: 500 ppm	(Vacated) TWA: 750 ppm (Vacated) TWA: 1800 mg/m ³ (Vacated) STEL: 2400 mg/m ³ (Vacated) STEL: 1000 ppm TWA: 1000 ppm TWA: 2400 mg/m ³
Ethyl alcohol		STEL: 1000 ppm	(Vacated) TWA: 1000 ppm (Vacated) TWA: 1900 mg/m ³ TWA: 1000 ppm TWA: 1900 mg/m ³
Methyl alcohol		TWA: 200 ppm STEL: 250 ppm Skin	(Vacated) TWA: 200 ppm (Vacated) TWA: 260 mg/m ³ (Vacated) STEL: 250 ppm (Vacated) STEL: 325 mg/m ³ Skin TWA: 200 ppm TWA: 260 mg/m ³

Component	European Union	The United Kingdom	Germany
Acetone	TWA: 500 ppm (8h) TWA: 1210 mg/m ³ (8h)	TWA: 500 ppm TWA: 1210 mg/m ³ STEL: 1500 ppm STEL: 3620 mg/m ³	TWA: 500 ppm TWA: 1200 mg/m ³
Ethyl alcohol		TWA: 1000 ppm TWA: 1920 mg/m ³ TWA WEL - STEL: 3000 ppm STEL; 5760 mg/m ³ STEL	200 ppm TWA MAK; 380 mg/m ³ TWA MAK
Methyl alcohol	TWA: 200 ppm 8 hr TWA: 260 mg/m ³ 8 hr Skin	WEL - TWA: 200 ppm TWA; 266 mg/m ³ TWA WEL - STEL: 250 ppm STEL; 333 mg/m ³ STEL	100 ppm TWA MAK; 130 mg/m ³ TWA MAK Skin absorber

Exposure Controls

Engineering Measures

Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas. Use explosion-proof electrical/ventilating/lighting equipment.

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

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

When workers are facing concentrations above the exposure limit they must use appropriate certified respirators

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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

When using do not eat, drink or smoke Provide regular cleaning of equipment, work area and clothing

Environmental exposure controls

Do not allow material to contaminate ground water system Prevent product from entering drains

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance	Clear
Physical State	Liquid
Odor	pungent
Odor Threshold	No data available
pH	No information available

Melting Point/Range	-116 °C / -176.8 °F	
Softening Point	No data available	
Boiling Point/Range	No information available °C / °F	
Flash Point	10 °C / 50 °F	Method - No information available

Evaporation Rate	No data available	
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 0.77 - 0.8 @ 25°C	
Bulk Density	Not applicable	Liquid
Water Solubility	No information available	
Solubility in other solvents	No information available	

Partition Coefficient (n-octanol/water)

Component	log Pow
Acetone	-0.24
Ethyl alcohol	-0.32
Methyl alcohol	-0.74

Autoignition Temperature	No data available	
Decomposition Temperature	No data available	
Viscosity	No data available	
Explosive Properties		Vapors may form explosive mixtures with air
Oxidizing Properties	No information available	

VOC Content(%)	100
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SECTION 10: STABILITY AND REACTIVITY

Reactivity

None known, based on information available.

Chemical Stability

Stable under normal conditions.

Possibility of Hazardous Reactions

Hazardous Polymerization Hazardous Reactions

No information available.
None under normal processing.

Conditions to Avoid

Heating in air. Keep away from open flames, hot surfaces and sources of ignition.

Incompatible Materials

None known.

Hazardous Decomposition Products

None under normal use conditions.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects

Acute Toxicity

Toxicology data for the components

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Acetone	5800 mg/kg (Rat)	> 15800 mg/kg (rabbit) > 7400 mg/kg (rat)	76 mg/l, 4 h, (rat)
Ethyl alcohol	LD50 = 7060 mg/kg (Rat)		20000 ppm/10H (Rat)
Methyl alcohol	LD50 = 1187 – 2769 mg/kg (Rat)	LD50 = 17100 mg/kg (Rabbit)	LC50 = 128.2 mg/L (Rat) 4 h

Chronic Toxicity Carcinogenicity

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. 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).

Sensitization Mutagenic Effects Reproductive Effects Developmental Effects

No information available
No information available
No information available
No information available

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Target Organs None known.

Symptoms Inhalation of high vapor concentrations may cause symptoms like headache, dizziness, tiredness, nausea and vomiting.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity effects Contains a substance which is: Toxic to aquatic organisms. The product contains following substances which are hazardous for the environment.

Component	Freshwater Fish	Water Flea	Freshwater Algae	Microtox
Acetone	Oncorhynchus mykiss: LC50 = 5540 mg/l 96h Alburnus alburnus: LC50 = 11000 mg/l 96h Leuciscus idus: LC50 = 11300 mg/L/48h Salmo gairdneri: LC50 = 6100 mg/L/24h	EC50 = 8800 mg/L/48h EC50 = 12700 mg/L/48h EC50 = 12600 mg/L/48h	NOEC = 430 mg/l (algae; 96 h)	EC50 = 14500 mg/L/15 min
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
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

Persistence and degradability No information available

Component	Degradability
Acetone 67-64-1 (50)	91 % (28 d) (OECD 301 B)
Methyl alcohol 67-56-1 (2.5)	DT50 ~ 17.2d >94% after 20d

Degradation in sewage treatment plant Contains substances known to be hazardous to the environment or not degradable in waste water treatment plants.

Bioaccumulative potential No information available

Component	log Pow	Bioconcentration factor (BCF)
Acetone	-0.24	0.69 dimensionless
Ethyl alcohol	-0.32	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

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Waste from Residues/Unused Products

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. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous Keep product and empty container away from heat and sources of ignition

Other Information

Do not flush to sewer Waste codes should be assigned by the user based on the application for which the product was used Can be landfilled or incinerated, when in compliance with local regulations

SECTION 14: TRANSPORT INFORMATION

IMDG/IMO

UN-No UN1993
Hazard Class 3
Packing Group II
Proper Shipping Name Flammable liquid, n.o.s.

Road and Rail Transport

Not regulated

IATA

UN-No UN1993
Hazard Class 3
Packing Group II
Proper Shipping Name Flammable liquid, n.o.s.

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
Acetone	-	X	X	X	X	X	X	X	KE-29367
Ethyl alcohol	-	X	X	X	X	X	X	X	KE-13217
Methyl alcohol	-	X	X	X	X	X	X	X	KE-23193

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)
Acetone				Annex I - Y42
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

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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/NDSL - 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

BCF - Bioconcentration factor

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

MARPOL - International Convention for the Prevention of Pollution from Ships

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

29-Mar-2023

Revision Summary

SDS sections updated.

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