

Material Safety Data Sheet

Hazardous according to criteria of Worksafe Australia
Hazardous according to Occupational Safety and Health Administration's (OSHA)
Communication Standard , 29 CFR 1910.1200

Magnesium

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

THERMO ELECTRON
189 - 199 Browns Rd
NOBLE PARK VIC 3174
AUSTRALIA

Tel: +61 3 9790 4100

Fax: +61 3 9790 4155

E-mail: info.clinicalchemistry@thermo.com

THERMO ELECTRON
331 South 104th Street
LOUISVILLE, CO 80027
U.S.A

Tel: (303) 581 6428

Fax: (303) 581 6429

E-mail: info.clinicalchemistry@thermo.com

Product Name: Magnesium

Catalog Numbers: 1640-250, 1640-500, 1640-200H

Use: This reagent is intended for the in vitro determination of magnesium in serum.

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Subsidiary risk: None allocated

Packing Group: None allocated

Hazchem Code: None allocated

Poison Schedule: S5

Contact Point

Australia

Quality Assurance Manager:

Tel: +61 3 9790 4100

Mon – Fri 9:00am to 5:00pm

U.S.A

Chemtel

24 Hour Emergency Assistance

1-800-255-3924

2. COMPOSITION / INFORMATION ON INGREDIENTS

SUBSTANCE NAME

Proportion

CAS Number

Color Reagent

All ingredients in this product are not hazardous according to the criteria of Worksafe Australia and OSHA
Communication Standard 29 CFR 1910.1200

Base Reagent

POTASSIUM HYDROXIDE

1 to < 2 %

1310-58-3

WATER AND OTHER NON-HAZARDOUS SUBSTANCES Balance

Mixture

All other ingredients determined not to be hazardous according to the criteria of Worksafe Australia and OSHA
Communication Standard 29 CFR 1910.1200

3. HAZARD IDENTIFICATION

Color Reagent

Not Classified as hazardous according to the criteria of Worksafe Australia and OSHA Communication Standard 29
CFR 1910.1200

Hazard Category: None allocated

Base Reagent

HAZARDOUS ACCORDING TO THE CRITERIA OF WORKSAFE AUSTRALIA and OSHA Communication
Standard 29 CFR 1910.1200

HAZARD CATEGORY: Irritant

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3. HAZARD IDENTIFICATION (cont)

ACUTE HEALTH EFFECTS

Swallowed:

Color Reagent

Drinking large quantities of this product, may cause irritation to mouth, throat and stomach ,which may lead to nausea, vomiting and diarrhoea.

Base Reagent

May cause irritation to mouth, throat and stomach with effects including pains in the stomach, which may lead to nausea, vomiting and diarrhoea.

Eye:

Color Reagent

May cause mild irritation to the eyes, with effects including: tearing and blurred vision. These effects are anticipated to be of a transient (short acting) nature and no long term injury is envisaged.

Base Reagent

Will cause severe irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision.

Skin:

Color Reagent

May cause mild irritation to the skin.

Base Reagent

Will cause irritation to the skin, with effects including; Redness, itchiness, and drying/defatting.

Inhaled:

Color Reagent

If the product is heated, the mists generated from this product may cause irritation to the mouth, throat and upper respiratory system.

Base Reagent

Mists from the product may cause irritation to the nose, throat and respiratory system.

Chronic:

Color Reagent

Prolonged or repeated skin exposure may cause skin irritation in some susceptible individuals.

Base Reagent

Prolonged or repeated skin contact may lead to dermatitis. Prolonged contact may cause severe eye irritation and some form of permanent eye damage may occur.

4. FIRST AID MEASURES

Swallowed:

If swallowed, **DO NOT** induce vomiting. If conscious, give 1 to 2 glasses of water to drink. Seek immediate medical assistance.

Eye:

If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. If irritation persists transport to hospital or doctor.

Skin:

If material is splashed onto the skin, remove any contaminated clothing and wash skin thoroughly with soap and water. If irritation persists transport to hospital or doctor.

Inhaled:

Move victim to fresh air. Apply resuscitation if victim is not breathing.

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4. FIRST AID MEASURES (cont)

First Aid Facilities:

Eye wash fountain, safety shower and normal wash room facilities.

Advice to Doctor:

Treat symptomatically.

In case of poisoning, contact Poisons Information Centre

In Australia call Tel: 131126

In New Zealand Tel: 034747000

5. FIRE-FIGHTING MEASURES

Fire/Explosion Hazard

If safe to do so, move undamaged containers from fire area.

Hazardous Decomposition Products: Emits smoke and fumes when heated to decomposition.

Fire Fighting Procedures: Fire fighters to wear Self-contained breathing apparatus (SCBA) in confined spaces, in oxygen deficient atmospheres or if exposed to products of decomposition. Full protective clothing is also recommended.

Extinguishing Media: Use extinguishing media suitable for surrounding fire situation.

Flammability

This material is not a flammable or combustible liquid.

6. ACCIDENTAL RELEASE MEASURES

Color Reagent

Walk cautiously. Ventilate area. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. If large quantities of this product have spilt, then bund area using vermiculite - to prevent run off into drains and waterways. Place absorbent (vermiculite or other inert material) onto spill. Collect and seal in properly labeled containers for disposal. For small spills (less than 1 L) flush to drain with large quantities of water.

Base Reagent

Caution! Material may be slippery when spilt. Walk cautiously. Ventilate area. Wear protective equipment to prevent skin and eye contact, as outlined under personal protection in this MSDS. Use absorbent (vermiculite or other inert material) and place on top of spill, then shovel up and seal in properly labeled containers for disposal.

7. HANDLING AND STORAGE

Color Reagent

Store in a cool place and out of direct sunlight. Store away from oxidizing agents. Keep containers closed, when not using the product. Store at 2-8°C and the reagent will be stable until the expiry date stated on the bottle and kit box labels. Store in original packages as approved by manufacturer.

Base Reagent

Avoid generating mists. Store in a cool place and out of direct sunlight. Store away from strong acids. Keep containers closed, when not using the product. Store at 15-30°C and the reagent will be stable until the expiry date stated on the bottle and kit box labels. Store in original packages as approved by manufacturer.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Standards**Color Reagent**

No exposure standards are available for this product.

Base Reagent

No exposure standards are available for this product, however, the following exposure standards have been assigned by the National Occupational Health & Safety Commission (NOHSC) to the following components of the product:

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8. EXPOSURE CONTROLS / PERSONAL PROTECTION (cont)

POTASSIUM HYDROXIDE

(Worksafe Australia)

[TWA]2 mg/m³

[STEL]Peak limitation

References: H

Peak Limitation: For some rapidly acting substances and irritants, the averaging of the airborne concentration over an eight hour period is inappropriate. These substances may induce acute effects after relatively brief exposure to high concentrations and so the exposure standard for these substances represents a maximum or "peak concentration" to which workers may be exposed.

Engineering Controls

Maintain adequate ventilation at all times. In most circumstances natural ventilation systems are adequate.

Personal Protection Equipment

GLOVES: The use of nitrile rubber is recommended.

EYES: Chemical goggles or spectacles to protect eyes.

RESPIRATORY PROTECTION: Avoid breathing of mists. Select and use respirators in accordance with AS/NZS 1715/1716. The use of a dust mask (disposable) or a half-face respirator with P1 filter is recommended. Filter capacity and respirator type depends on exposure levels and type of contaminant. If entering spaces where the airborne concentration of a contaminant is unknown then the use of a Self-contained breathing apparatus (SCBA) with positive pressure air supply complying with AS/NZS 1715 / 1716, or any other acceptable International Standard is recommended.

9. PHYSICAL AND CHEMICAL PROPERTIES

	Color Reagent	Base Reagent
Appearance:	Clear dark blue liquid with no odour.	Clear liquid with no odour.
Boiling Point:	Not available.	Not available.
Freezing Point:	Not available.	Not available.
Vapour Pressure:	Not available.	Not available.
Specific Gravity:	Not available.	Not available.
Flash Point:	Not applicable.	Not available.
Flammability Limits:	Not applicable.	Not applicable.
Solubility in Water:	Completely miscible.	Completely miscible.
Other Properties		
pH:	9.0 – 9.5 @ 19-22°C	13.0 – 13.40 @ 19-22°C

10. STABILITY AND REACTIVITY

STABILITY:

Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Emits smoke and fumes when heated to decomposition.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Strong acids and oxidizing agents.

CONDITIONS TO AVOID:

High temperatures and incompatibles.

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11. TOXICOLOGICAL INFORMATION

Color Reagent

There is no toxicological information available for this product, it is anticipated that the following information is applicable:

Oral LD50(rat): > 2,000 mg/kg

Dermal LD50(rabbit): > 2,000 mg/kg

Base Reagent

There is no toxicological information available for this product.

Potassium hydroxide:

Lethal dose (rabbits, oral): 500 mg/kg.

Irritant dose (rabbits, dermal): 50 mg/24 hour - severe skin irritant.

Irritant dose (rabbits, ocular): 50 ug/24 hour - severe eye irritant.

According to OECD Guideline for the Testing of Chemicals (OECD 405) for eye corrosion and OECD Guideline for the Testing of Chemicals (OECD 404) for skin corrosion, both test procedures have been utilized to determine that potassium hydroxide is a confirmed corrosive substance.

This product contains significantly less of potassium hydroxide than is required for reporting according to Worksafe Australia, it is in ThermoTraces belief that due to the high pH of the product that irritation and possible long term injury may occur to the eyes.

12. ECOLOGICAL INFORMATION

No ecological information available for this product. Do not dispose of large quantities to waterways, drains or sewers.

13. DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Normally suitable for disposal by approved waste disposal agent.

14. TRANSPORT INFORMATION

UN Number: None allocated

Proper Shipping Name: NONE ALLOCATED

Dangerous Goods Class: None allocated

Subsidiary risk: None allocated

Packing Group: None allocated

Hazchem Code: None allocated

Not classified as a Dangerous Good according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) 6th Edition. Not classified as a Dangerous Good according to the UN, DOT(US), ICAO(IATA) or IMO(IMDG).

15. REGULATORY INFORMATION

Color Reagent

Poison Schedule: None allocated

RISK PHRASES

None allocated

SAFETY PHRASES

S23 Do not breathe mist.

S24 Avoid contact with skin.

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15. REGULATORY INFORMATION (cont)

Base Reagent**Poison Schedule:** S5

This material is a Scheduled S5 Poison and must be stored, handled and used according to the appropriate regulations.

RISK PHRASES

R41 Risk of serious damage to eyes.

R38 Irritating to skin.

SAFETY PHRASES

S1/2 Keep locked up and out of reach of children.

S26 In case of contact with eyes, rinse immediately with plenty of water and contact a doctor or Poisons Information Centre.

S37/39 Wear suitable gloves and eye/face protection.

S45 In case of accident or if you feel unwell, contact a doctor or Poisons Information Centre immediately and show this container or label.

16. OTHER INFORMATION

Disclaimer

This MSDS summarises our best knowledge of the health and safety hazard information of the product and how to safely handle and use the product in the workplace. Each user should read this MSDS and consider the information in the context of how the product will be handled and used in the workplace including in conjunction with other products. If clarification or further information is needed to ensure that an appropriate risk assessment can be made, the user should contact this company.

Our responsibility for products sold is subject to our standard terms and conditions which are available on request.

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