

Material Safety Data Sheet

Creatinine - Colorimetric

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Creatinine - Colorimetric

Catalog Numbers: 235 001, 235 002, 235 003, 235 004

Use: Spectrum Diagnostics creatinine reagent is intended for the in-vitro quantitative, diagnostic determination of creatinine in human serum or urine on manual system.

Contact Point

Egypt

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2. HAZARD IDENTIFICATION

Picric Acid reagent & Sodium Hydroxide Reagent

Not CLASSIFIED AS HAZARDOUS ACCORDING TO EU CRITERIA

Hazard Classification: HAZARDOUS SUBSTANCE, Non-DANGEROUS GOODS.

Hazard Category: **Reagent 1** Irritant
Reagent 2 Corrosive

RISK PHRASES

Reagent 1

R38 Irritating to skin.

R41 Risk of serious damage to eyes.

Reagent 2

R35 Cause severe burns.

R41 Risk of serious damage to eyes.

SAFETY PHRASES

Reagent 1

S24/25 Avoid contact with eyes and skin.

Reagent 2

S26 In case of contact with eyes, rinse immediately with plenty of water and seek Medical advice.

S28 After contact with skin, wash immediately with plenty of soap and water.

Poison Schedule: None allocated.

3.COMPOSITION / INFORMATION ON INGREDIENTS

Reagent 2 (R2) SUBSTANCE NAME	Proportion	CAS Number
SODIUM HYDROXIDE	1.6 mol/L	1310-73-2

All other ingredients determined not to be hazardous according to the EU criteria.

4.FIRST AID MEASURES

Swallowed:

If swallowed, **DO NOT induce vomiting**. If victim is conscious give glass of water to drink. Immediately transport to hospital or doctor.

Eye:

If material is splashed into eyes, immediately, flush with plenty of water for 15 minutes, ensuring eye lids are held open. Immediately 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.

First Aid Facilities:

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

Advice to Doctor:

Treat symptomatically.

5.FIRE-FIGHTING MEASURES

Fire/Explosion Hazard

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

Hazardous Decomposition Products: Decomposes on heating emitting noxious smoke.

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

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. 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. Remainder of material may be neutralized by cautiously adding vinegar. Collect this material after foaming/effervescence ceases and place into above labeled container.

7. HANDLING AND STORAGE

Store in a cool place and out of direct sunlight. Store away from sources of heat or ignition. Store away from strong acids. Keep containers closed, when not using the product. Store at 15-25 °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

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 component of the product:

Engineering Controls

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

Personal Protection Equipment

GLOVES: Not normally required, however, if product has spilt, or package is broken, then the use of neoprene gloves is recommended.

EYES: Chemical goggles or glasses to protect eyes.

RESPIRATORY PROTECTION: Avoid breathing of vapours. The use of a respirator is not normally required, however, 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. Select and use respirators in accordance with AS/NZS 1715/1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

	Sodium Hydroxide Reagent	Picric Acid Reagent
Appearance	Clear liquid with no odour.	Clear yellow liquid with no odour.
Solubility in water	Completely miscible.	Completely miscible.

Other properties

pH	Not applicable.	Not applicable.
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10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use.

HAZARDOUS DECOMPOSITION PRODUCTS:

Reagent 1 (Picric acid)

Decomposes on heating emitting oxides of carbon and oxides of nitrogen.

Reagent 2 (Sodium hydroxide)

Decomposes on heating emitting noxious smoke.

HAZARDOUS POLYMERIZATION:

Will not occur.

INCOMPATIBILITIES:

Reagent 1 (Picric acid)

Strong oxidizing agents, heavy metals (Lead, Tin etc).

Reagent 2 (sodium hydroxide)

Strong mineral acids (sulfuric, nitric and hydrochloric).

CONDITIONS TO AVOID:

Incompatibles.

11. TOXICOLOGICAL INFORMATION

Picric Acid Reagent

There is no toxicological information available for this product, however, for the ingredient:
Picric acid:

Oral LD50 (rat): 200 mg/kg

Picric acid dust will cause severe irritation and is a suspected skin allergen. Due to the low concentration of picric acid in this product, it is not anticipated to cause allergic skin reactions. The systemic poisoning following the absorption of picric acid causes, headaches and vertigo, there may be a darkened or port wine colored urine and albuminuria. High doses caused destruction of the erythrocytes and produce gastroenteritis, hemorrhagic nephritis and acute hepatitis.

Sodium hydroxide Reagent

There is no toxicological information available for this product, however, for the ingredient:
Sodium hydroxide:

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 sodium hydroxide is a confirmed corrosive substance. However, we anticipated that this product will cause severe eye irritation and significant skin irritation especially if the duration of exposure is prolonged or repeated.

ACUTE HEALTH EFFECTS

Swallowed:

May cause irritation to mouth, throat and stomach with effects including mucous build up, irritation to the tongue and lips and pains in the stomach. Swallowing of large quantities may result in nausea, vomiting and diarrhea.

Eye:

Will cause severe irritation to the eyes, with effects including: tearing, pain, stinging and blurred vision. If the product is not removed promptly corneal injury may occur.

Skin:

Will cause irritation to the skin, with effects including; Redness and itchiness. The product is not anticipated to be absorbed through the skin.

Inhaled:

May cause irritation to the nose, throat and respiratory system. However, this is only anticipated to occur if the product is heated.

Chronic:

Prolonged or repeated skin contact may lead to drying / defatting and possible dermatitis in some susceptible individuals.

12.ECOLOGICAL INFORMATION

No information is available for this product, however, for sodium hydroxide component:

Water pollution:

Persistency: Can persist for extended periods of time.

Effect on water treatment process: Can raise pH and interfere with coagulation. Avoid contaminating drains, sewers or waterways.

13.DISPOSAL CONSIDERATIONS

Refer to appropriate authority in your State. Dispose of material through a licensed waste contractor.

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

Road and Rail Transport:

Not classified as a Dangerous Good according to the United Nations Recommendations for the Transport of Dangerous Goods and Globally Harmonized System for the classification and labeling of Chemicals.

Air Transport:

Not classified as a Dangerous Good according to the International Civil Aviation Organization (ICAO) and International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air.

Marine Transport:

Not classified as a Dangerous Good according to the International Maritime Organization Rules (Maritime Dangerous Goods Code - IMDG Code) for transport by sea.

15. OTHER INFORMATION

Principal References

Information supplied by manufacturer, reference sources including the public domain.

Disclaimer

This MSDS summarizes 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.

END OF MSDS