Coral Clinical Systems

Plot No. M – 46, Phase III B, Verna Ind. Estate,
Verna, Goa – 403 722, INDIA
Tel.: (0832) 6680121, Fax: (0832) 2887028

Corporate Office : "Gitanjali", Tulip Block, Dr. Antonio Do Rego Bagh, Alto Santacruz,
Bambolim Complex Post Office, Goa – 403 202. INDIA.
Tel.: (0832) 2458546 – 51, Fax: (0832) 2458544

Material Safety Data Sheet

1. Product Identification

Product Name : **Creatinine Kit (Alkaline Picrate method**

Catalog Number : CRE 010 / CRE 011 / CRE 012

2. Composition / Information on Hazardous Ingredients

Chemical Name	CAS #	% W/V	Exposure Limits in Air				
			ACGIH		OSHA		OTHER
			TLV	STEL	PEL	STEL	

Reagent 1: Picric Acid Reagent

Picric Acid	88 – 89 – 1	> 1%	0.1mg/m^3	N/A	0.1mg/m^3	N / A	NIOSH STEL/IDLH: 0.3/75 mg/m^3 (skin)

Reagent 2: Buffer Reagent

Sodium Hydroxide	1310-73-2	> 1%	N / A	2 mg/m^3C	2 mg/m^3	N / A	NIOSH IDLH 10 mg/m^3

Reagent 3: N/A

Reagent 4: N/A

Reagent 5: N/A

3. Hazard Identification

Primary Routes of Entry:
Inhalation, ingestion, skin and / or eye contact.

Inhalation:
Sodium hydroxide: burning sensation, cough, with a corrosive action to mucous membrane.
Picric acid: irritation to the respiratory tract. Symptoms may include coughing, shortness of breath.

Ingestion:
Sodium hydroxide: abdominal pain, burning sensation; symptoms: sneezing, sore throat or runny nose. Severe pneumonitis is possible. Picric acid : irritation to gastrointestinal tract; symptoms: nausea, vomiting and diarrhea.

Skin Contact:
Sodium hydroxide: may cause redness, pain or scarring is possible with greater exposure. Picric acid : causes irritation to skin, may cause allergic skin reactions, or can be absorbed through the skin with possible systemic effects.

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Eye Contact:
Sodium hydroxide: may cause redness, pain or blurred vision, severe deep burns, or blindness. Picric acid : may irritate eyes. Conjunctiva of the eye may also become yellow with corresponding yellow vision.

Chronic Exposure:
Sodium hydroxide: repeated / prolonged contact with skin can be destructive to tissue. Picric acid: prolonged/ repeated exposure can cause liver, kidney, and blood effects. Hair and skin may become yellow.

Medical Conditions Aggravated by Exposure:
Person with pre- existing (sodium hydroxide: skin disorders or eye problems or impaired respiratory function; picric acid : pre – existing skin, liver, blood and kidney disorders) may be more susceptible to the effects.

Health Effects:
The health effects from exposures to diluted forms of sodium hydroxide are not well documented. They are expected to be less severe than those for concentrated forms which are referenced in the descriptions.

4. First Aid Measures

Inhalation:
If breathing becomes difficult, remove victim to fresh air. Seek medical attention immediately.

Ingestion:
Do not induce vomiting. Get medical attention immediately. Do not give anything by mouth to an unconscious person.

Skin Contact:
Avoid skin contact. If skin contact occurs, remove contaminated clothing and wash exposed skin with water for atleast 15 minutes. Get medical attention immediately.

Eye Contact:
Immediately flush eye(s) with large volume of water for atleast 15 minutes, occasionally lifting the lower lids. Get medical attention immediately.

5. Fire Fighting Measures

Flash Point (Method used): N/A **Flammable Limits – LEL:** N/A **UEL:** N/A

Extinguishing Media:
Use fire extinguishing media appropriate for site conditions.

Special Fire Procedures:
Structural firefighting gear and self-contained breathing apparatus will provide adequate protection if this product is in a fire area.

Unusual Fire and Explosion Hazards:
Sodium hydroxide : adding water to caustic solution generates large amount of heat. Picric acid : explosive decomposition is likely if material is involved in a fire

6. Accidental Release Measures

Steps to be taken in case material is Released or Spilled:
PPE should be level D: lab gloves, chemical resistant apron, boots and splash goggles. Sweep up spilled product. Place all spill residue into a suitable container, seal, label, and hold for disposal.

7. Handling and Storage

Refer to packet insert for additional information on handling and storage procedures.

8. Exposure Controls and Personal Protection

Ventilation Data:
A system of local and / or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source.

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Respiratory Protection:
Respiratory protection is not required under normal use of this product. If respiratory protection is needed, follow OSHA respirator regulations (29CFR1910.134) and, if necessary, wear a NIOSH approved respirator. Select respirator based on its suitability to provide worker protection for given working conditions, level of airborne concentration, and presence of sufficient oxygen.

Protective Gloves:
Wear appropriate protective gloves to prevent skin contact. Replace torn or punctured gloves promptly.

Other Protective Equipment:
Wear appropriate eye protection to prevent eye contact. Wear appropriate body protection to prevent skin contact.

Other Engineering Controls:
Eye wash stations and deluge showers.

Work Practices:
Good laboratory technique should be used when handling this product. Observe appropriate chemical hygiene. Avoid contact with eyes or skin. Do not place in mouth.

Hygienic Practices:
Do not eat, drink, or smoke while working with product. Upon completion of work activities involving this product, wash hands thoroughly with soap and water.

9. Physical And Chemical Properties

For All Components Unless Otherwise Indicated

Relative Vapour density(air = 1) :	N/A	Evaporation rate(nBuAc = 1):	N/A
Specific Gravity (water = 1) :	N/A	Freezing / Melting Point :	N/A
Solubility in Water :	Soluble	Boiling Point :	N/A
Vapour Pressure, mm Hg @ 20oC:	N/A	pH :	N/A

Odour and Appearance Information

Reagent 1: Yellowish Colour liquid

Reagent 2: Clear, Colourless liquid

Reagent 3: N/A.

Reagent 4: N/A.

Reagent 5: N/A.

10. Stability and Reactivity

Incompatibility (Materials to Avoid):
Sodium hydroxide : water, acid, flammable liquids, and metals (eg. Aluminium, tin , zinc). Picric acid: metals – copper, lead, zinc, aluminium + water, ammonia, concrete, plaster, salts, oxidizers.

Hazardous Decomposition Products:
Sodium hydroxide: reacts with acid and is corrosive in moist air to metals (e.g. Zinc, tin, lead) to form combustible hydrogen gas. Picric acid : explosive decomposition is likely if material is involved in a fire.

Will Hazardous Polymerization Occur?
Hazardous polymerization will not occur.

Conditions to Avoid / Polymerization: N/A

Is the Product Stable?
Yes, under normal handling and storage conditions.

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Conditions to Avoid/stability:
Heat, moisture, incompatibles. Picric acid: dangerous explosion hazard when dry. Becomes increasingly shock, heat, and friction sensitive as it loses its moisture.

11. Toxicological Information

Toxicity Data:
Sodium hydroxide is considered a severe skin and eye irritant based on irritation data: skin, rabbit 500 mg / 24 hours ; eye, rabbit 50 micrograms/24 hours.
Picric acid: LD50 (rat, oral)= 200 mg/kg. Investigated as mutagen.

Reproductive effects:
N/A.
Target organ Effects:
Picric acid : eyes, skin, kidneys, liver, blood. Sodium hydroxide: skin, eyes, respiratory tract.

Carcinogenicity: No

CHEMICAL NAME	CAS #	% W/V	NTP Carcinogen		IARC	OSHA
			Known	Anticipated		
N/A.						

12. Ecological Information

Environmental Fate / Stability:
The sodium hydroxide solution may be hazardous to the environment, special attention should be given to water organisms.

Effect of Material on plants or animals:
N/A

Effect of Chemical on Aquatic Life:
N/A

13. Disposal Considerations

EPA Waste Number and Proper Waste Disposal Method:
Please consult local, state and federal regulations for additional guidance on disposal.

14. Transportation Information

Is this Material Hazardous? Not regulated under transportation regulations.

Proper Shipping Name : N/A		
Hazard Class Number : N/A	Packing Group: N/A	UN Number: N/A

15. Regulatory Information

NA.

16. Other Information

NA => NOT APPLICABLE or NO INFORMATION