Coral Clinical Systems

Plot No. M – 46, Phase III B, Verna Ind. Estate,
Verna, Goa – 403 722, INDIA
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Material Safety Data Sheet

1. Product Identification

Product Name : **Uric Acid Kit (Uricase/PAP method)**

Catalog Number : UAC 010 / UAC 011 / UAC 012 / UAC 013 / UAC 014

2. Composition / Information on Hazardous Ingredients

Chemical Name	CAS #	% W/V	Exposure Limits in Air				
			ACGIH		OSHA		OTHER
			TLV	STEL	PEL	STEL	
Reagent 1: Buffer Reagent							
Potassium hydroxide	1310-58-3	0.2	C 2 mg/m^3	N/A	C 2 mg/m^3	N / A	N / A
Sodium Azide	26628-22-8	0.1	N / A	0.29 mg/m^3	N / A	N / A	NIOSH 0.3 mg/m^3 C (skin)
Reagent 2: Enzyme Reagent							
Sodium Hydroxide	1310-73-2	16%	N / A	2 mg/m^{3}C	2 mg/m^3	N / A	NIOSH IDLH 10 mg/m^3
Sodium Azide	26628-22-8	0.1	N / A	0.29 mg/m^3	N / A	N / A	NIOSH 0.3 mg/m^3 C (skin)
Reagent 3: Uric Acid standard.							
NA							
Reagent 4: N/A							
Reagent 5: N/A							

3. Hazard Identification

Primary Routes of Entry:
Inhalation, Ingestion, Skin and / or Eye contact.

Inhalation:
Sodium Azide: Inhalation of vapors may cause headache, nausea, dizziness, fatigue, cyanosis, and weakness in arms and legs. **Potassium Hydroxide**: Irritation of respiratory tract, inflammation of lungs, difficulty in breathing. May cause pulmonary edema. **Sodium hydroxide**: Irritation to respiratory tract, inflammation of lungs, difficulty in breathing. May cause pulmonary edema.

Ingestion:
Sodium Azide: Ingestion may cause nausea, vomiting, headache, dizziness, gastrointestinal irritation, blurred vision, lowering of blood pressure. **Potassium hydroxide**: Ingestion may lead to abdominal pain, burning of mouth, throat, and esophagus, vomiting, diarrhea, edema, swelling of larynx, and subsequent suffocation. Perforation of gastrointestinal tract can take place. **Sodium hydroxide:** Burning of mouth, throat, and esophagus; vomiting; diarrhea; edema; swelling of larynx; and subsequent suffocation. Perforation of gastrointestinal tract can occur.

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Skin Contact:
Sodium Azide: Contact with the skin, may develop mild irritation. Sodium Azide may enter body through skin. **Potassium hydroxide**: May cause severe burning, frequently deep ulcerations and ultimate scarring. Destructive effects on tissues. **Sodium Hydroxide**: severe burning, frequently deep ulcerations and ultimate scarring. Destructive effects on tissues.

Eye Contact:
Sodium Azide: Contact with the eyes, may develop mild irritation. **Potassium hydroxide**: instantaneous painful irritation of the eyes, can penetrate deeply causing irritation or severe burns depending on the concentration and duration of exposure, in severe cases, ulceration and blindness may occur. **Sodium Hydroxide**: Instantaneous painful irritation of the eyes. Can penetrate deeply causing irritation or severe burns depending on the concentration and duration of exposure. In severe cases, ulceration and blindness may occur.
Chronic Exposure:
Potassium hydroxide: repeated/ prolonged contact with skin can be destructive to tissue.
Medical Conditions Aggravated by Exposure:
Persons with preexisting skin disorders and eye problems or impaired respiratory function may be more susceptible to the effect.
Health Effects:
The health effects for the diluted forms of potassium hydroxide and Sodium Hydroxide are not well documented. They are expected to be less severe than those for concentrated forms, which are referenced in the above description.

4. First Aid Measures

Inhalation:
Remove victim to fresh air. Give artificial respiration only if breathing has stopped. If breathing is difficult, give oxygen. Seek medical attention immediately.

Ingestion:
Do not induce vomiting. If vomiting occurs, lean victim forward to prevent breathing in vomitus. Give a cup of water to dilute chemical in stomach. If vomiting occurs, give another cup of water after vomiting. Do not give anything to a unconscious or convulsing person. Seek medical attention immediately.

Skin Contact:
Immediately flush effected area with lukewarm water for at least 20 minutes or until slippery feeling is gone. Remove contaminated clothing while under running water. Get immediate medical attention.

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 azide can react with copper, lead, brass, or solder in plumbing to form explosive compound of lead azide and copper azide. Sodium azide can react with acids to form explosive hydrogen azide.

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. Place all spill material 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.

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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.

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: Clear, Colourless liquid
Reagent 2: Clear, Brownish colour liquid
Reagent 3: Clear, Colourless liquid
Reagent 4: N/A.
Reagent 5: N/A.

10. Stability and Reactivity

Incompatibility (Materials to Avoid):
Sodium Azide: Strong bases, strong acids, metals, strong oxidizers and water reactive materials. **Potassium hydroxide**: Incompatible with strong acids, metals, organohalogen compounds, nitro and chloro organic compounds, flammable liquids, nitromethane, whey solids, and nitrous compounds. Sodium Hydroxide: Metals, Organohalogen compounds, flammable liquids, and nitrous compounds.

Hazardous Decomposition Products:
Thermal decomposition may produce carbon monoxide and carbon dioxide.

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.

Conditions to Avoid/stability
Stable Solution. Avoid acidification of solution, which may generate hydrogen cyanide gas.

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11. Toxicological Information

Toxicity Data:
Sodium Azide (Undiluted): LD50 (rat and mouse, oral)=27mg/kg; LD50 (rabbit, skin)=20mg/kg. **Potassium Hydroxide:** LD50 (rat, Oral) = >90 ml/kg. **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.

Reproductive effects:
N/A.

Target organ Effects:
Sodium Azide: Eyes, Skin, central nervous systems, cardiovascular systems. Potassium Hydroxide: Eyes, Skin, and Respiratory system.

Carcinogenicity: No

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

12. Ecological Information

Environmental Fate / Stability:
N/A

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