

**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 : Urea Kit (Mod. Berthelot method)  
Catalog Number : URE 020 / URE 021 / URE 022

**2. Composition / Information on Hazardous Ingredients**

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

**Reagent 1: N/A.**


**Reagent 2: N/A.**


**Reagent 3: Chromogen Reagent**

Sodium hydroxide	1310-73-2	> 1%	N / A	2 mg/m <sup>3</sup> C	2 mg/m <sup>3</sup>	N / A	NIOSH IDLH 10mg/m <sup>3</sup>

**Reagent 4: N/A**


**Reagent 5: N/A**


**3. Hazard Identification**

**Primary Routes of Entry:**

Inhalation, ingestion, skins and / or eye contact.

**Inhalation:**

Inhalation may cause burning sensation, cough, with a corrosive action to mucous membranes.

**Ingestion:**

Abdominal pain, burning sensation; symptoms: sneezing, sore throat or runny nose. Severe pneumonitis is possible.

**Skin Contact:**

May cause redness, pain or scarring is possible with greater exposure.

**Eye Contact:**

May cause redness, pain or blurred vision, severe deep burns, or blindness.

**Chronic Exposure:**

Repeated / prolonged contact with skin can be destructive to tissue.

**Medical Conditions Aggravated by Exposure:**

Persons with pre-existing ( skin disorders or eye problems or impaired respiratory function) may be more susceptible to the effects.

**Health Effects:**

The health effects from exposure 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 above descriptions.

**4. First Aid Measures**

**Inhalation:**

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

**Ingestion:**

Get medical attention if there has been ingestion of this product.

**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:**

Adding water to caustic solution generates large amount of heat.

**6. Accidental Release Measures**

**Steps to be taken in case material is Released or Spilled:**

Initiate cleaning up spill with an inert substance and package all 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.

**8. Exposure Controls and Personal Protection**

**Ventilation Data:**

A system of local and/or general exhaust is recommended.

**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.

**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:** N/A.

**Reagent 2:** N/A.

**Reagent 3:** Clear, colourless liquid

**Reagent 4:** N/A.

**Reagent 5:** N/A.

**10. Stability and Reactivity**

**Incompatibility ( Materials to Avoid):**

Water, acids, flammable liquids, and metals ( eg. Aluminium, tin, zinc).

**Hazardous Decomposition Products:**

Reacts with acid and is corrosive in moist air to metals(eg. Zinc, tin, lead) to form combustible hydrogen gas.

**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**

Heat, moisture, incompatibles.

**11. Toxicological Information**

**Toxicity Data:**

Sodium hydroxide is considered a severe skin and eye irritant based on irritation data: skin, rabbit 500mg/24 hours; eye, rabbit 50 micrograms / 24hours.

**Reproductive effects:**

N/A.

**Target organ Effects:**

Eyes, skin 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	Packing Group: N/A	UN Number: N/A
Hazard Class Number : N/A		

**15. Regulatory Information**

NA.

**16. Other Information**

NA => NOT APPLICABLE or NO INFORMATION