

Safety Data Sheet

SECTION 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND THE COMPANY/UNDERTAKING

Catalog Number: STA-382
 Product Name: Urea Assay Kit
 Recommended Use: Laboratory Research Reagents

MANUFACTURER:

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SECTION 2. HAZARDS IDENTIFICATION

Ammonia Reagent (Part No. 238202): One 20 µL amber bottle

Classification:


Acute toxicity, Category 3 (H301)
 Eye irritation, Category 2A (H319)

Pictogram	
Signal Word	Danger
Hazard Statements: Toxic if swallowed (H301), Causes serious eye irritation (H319).	
Precautionary Statements: Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: Immediately call a POISON CENTER / doctor. Rinse mouth (P301 + P310 + P330), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305 + P351 + P338), If eye irritation persists: get medical advice/attention (P337 + P313), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).	

Developing Reagent (Part No. 238203): One 20 µL bottle

Classification:


Corrosive to metals, Category 1 (H290)
Skin corrosion, Category 1A (H314)
Serious eye damage, Category 1 (H318)
Acute aquatic toxicity, Category 1 (H400)
Chronic aquatic toxicity, Category 1 (H410)

Pictogram	
Signal Word	Danger
<p>Hazard Statements: May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314), Causes serious eye damage, (H318), Very toxic to aquatic life with long lasting effects (H410).</p>	
<p>Precautionary Statements: Keep only in original container (P234), Do not breathe dust/fume/gas/mist/vapors/spray (P260), Wash skin thoroughly after handling (P264), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: Rinse mouth. Do NOT induce vomiting (P301 + P330 + P331), IF ON SKIN (or hair): take off immediately all contaminated clothing Rinse skin with water/shower (P303 + P361 + P353), IF INHALED: remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER / doctor (P304 + P340 + P310), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER / doctor (P305 + P351 + P338 + P310), Wash contaminated clothing before reuse (P363), Absorb spillage to prevent material damage (P390), Collect spillage (P391), Store locked up (P405), Store in corrosive resistant stainless steel container with a resistant inner liner (P406), Dispose of contents/container to an approved waste disposal plant (P501).</p>	

Urease (Part No. 238204): One 80 µL amber tube of 100 U/mL solution

Classification:

Skin irritation, Category 2 (H315)
Eye irritation, Category 2A (H319)
Respiratory sensitization, Category 1 (H334)
Specific target organ toxicity - single exposure, Category 3, Respiratory System (H335)

Pictogram	
Signal Word	Danger
Hazard Statements: Causes skin irritation (H315), Causes serious eye irritation, (H319), May cause allergy or asthma symptoms or breathing difficulties if inhaled (H334), May cause respiratory irritation (H335).	
Precautionary Statements: Do not breathe dust/fume/gas/mist/vapors/spray (P260), Wash skin thoroughly after handling (P264), Use only outdoors or in a well-ventilated area (P271), Wear protective gloves/protective clothing/eye protection/face protection (P280), In case of inadequate ventilation wear respiratory protection (P285), IF ON SKIN: Wash with plenty of soap and water (P302 + P352), IF INHALED: remove person to fresh air and keep comfortable for breathing (P304 + P340), IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing (P305 + P351 + P338), If skin irritation occurs: get medical advice / attention (P332 + P313), If eye irritation persists: get medical advice / attention (P337 + P313), if experiencing respiratory symptoms: Call a POISON CENTER or doctor (P342 + P311), Wash contaminated clothing before reuse (P363), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Ammonia Reagent (Part No. 238202): One 20 µL amber bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Salicylate	40 mM	54-21-7
Sodium Nitroprusside Dihydrate	4 mM	13755-38-9
Ethylenediamine Tetraacetic Acid	2 mM	60-00-4

Developing Reagent (Part No. 238203): One 20 µL bottle

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Hydroxide	200 mM	1310-73-2

Sodium Hypochlorite solution	40 mM	7681-52-9
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Urease (Part No. 238204): One 80 µL amber tube of 100 U/mL solution

CHEMICAL NAME	CONCENTRATION	CAS #
Urease Type IX	100 U/mL	9002-13-5
Ethylenediamine Tetraacetic Acid	0.5 M	60-00-4

SECTION 4. FIRST-AID MEASURES

- IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS. CALL A PHYSICIAN IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
- IN CASE OF SKIN CONTACT, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. REMOVE CONTAMINATED CLOTHING AND SHOES. CALL A PHYSICIAN.
- IN CASE OF CONTACT WITH EYES, FLUSH WITH COPIOUS AMOUNTS OF WATER FOR AT LEAST 15 MINUTES. ASSURE ADEQUATE FLUSHING BY SEPARATING THE EYELIDS WITH FINGERS. CALL A PHYSICIAN.

SECTION 5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media: Water spray, alcohol-resistant foam, dry chemical or CO₂
- Special protective equipment: Self-contained breathing apparatus

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Evacuate area
- Wear self-contained breathing apparatus, rubber boots and heavy rubber gloves.
- Absorb with sand or vermiculite, sweep up, place in a bag and hold for waste disposal.
- Avoid raising dust.
- Ventilate area and wash spill site after material pickup is complete.

SECTION 7. SAFETY HANDLING AND STORAGE

- Should be handled by trained personnel observing good laboratory practices.
- Avoid breathing vapor.
- Avoid skin contact or swallowing.
- May cause allergic reaction in sensitized individuals.
- Store in properly labeled containers at temperature on label

SECTION 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

- Engineering measures: Handle in accordance with good industrial hygiene and safety practices. Wash hands immediately after handling the product.
- Personal protective equipment: Face shield or safety glasses, gloves, protective clothing, suitable respiratory equipment in cases of inadequate ventilation.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Form: liquid
- Odor: no data available
- pH: no data available
- Boiling point / range: no data available
- Melting point / range: no data available
- Flash point: no data available
- Evaporation rate: no data available
- Vapor pressure: no data available
- Vapor density: no data available
- Relative density: no data available
- Water solubility: no data available
- Autoignition temperature: no data available
- Decomposition temperature: no data available
- Viscosity: no data available
- Explosive properties: no data available
- Oxidizing properties: no data available

SECTION 10. STABILITY AND REACTIVITY

- Stability: no data available
- Reactivity: no data available
- Conditions to avoid: no data available
- Incompatible materials: no data available
- Decomposition products: no data available

SECTION 11. TOXICOLOGICAL INFORMATION

- Acute toxicity
 - Sodium Salicylate: LD50 Oral 930 mg/kg (rat), LD50 Oral 540 mg/kg (mouse), LD50 Oral 1.700 mg/kg (rabbit), LD50 Intraperitoneal 542 mg/kg (rat), LD50 Intramuscular 760 mg/kg (mouse), LD50 Intraperitoneal 500 mg/kg (mouse), LD50 Intravenous 500 mg/kg (mouse), LD50 Subcutaneous 550 mg/kg (mouse), LD50 Intravenous 415 mg/kg (rabbit), LD50 Intravenous 562 mg/kg (dog)
 - Sodium Nitroprusside Dihydrate: LD50 Oral 99 mg/kg (rat)
 - Ethylenediamine Tetraacetate Acid: LD50 Oral 2.580 mg/kg (rat)
 - Sodium hydroxide: no data available
 - Sodium Hypochlorite Solution: no data available

- Urease Type IX: LD50 Intraperitoneal 50 mg/kg (mouse), LD50 Intraperitoneal 35 mg/kg (pig), LD50 Intraperitoneal 25 mg/kg (rabbit), LD50 Intraperitoneal 48 mg/kg (rat), LD50 Intravenous 6 mg/kg (rabbit), LD50 Intravenous 20 mg/kg (rat), LD50 Subcutaneous 58 mg/kg (mouse).
- Skin corrosion/irritation
 - Sodium Salicylate: no data available
 - Sodium Nitroprusside Dihydrate: no data available
 - Ethylenediamine Tetraacetate Acid: no skin irritation (rabbit)
 - Sodium hydroxide: Causes sever burns 24h (rabbit)
 - Sodium Hypochlorite Solution: no data available
 - Urease Type IX: no data available
- Serious eye damage/irritation
 - Sodium Salicylate: no data available
 - Sodium Nitroprusside Dihydrate: no data available
 - Ethylenediamine Tetraacetate Acid: eye irritation (rabbit)
 - Sodium hydroxide: Eyes corrosive 24h (rabbit)
 - Sodium Hypochlorite Solution: no data available
 - Urease Type IX: no data available
- Respiratory or skin sensitization
 - Sodium Salicylate: no data available
 - Sodium Nitroprusside Dihydrate: no data available
 - Ethylenediamine Tetraacetate Acid: no data available
 - Sodium hydroxide: Eyes corrosive 24h (rabbit)
 - Sodium Hypochlorite Solution: no data available
 - Urease Type IX: may cause allergic respiratory reaction
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - Sodium Salicylate: Toxicity to fish: LC50 1.370 mg/L 96h (Pimephales promelas)
 - Sodium Nitroprusside Dihydrate: no data available
 - Ethylenediamine Tetraacetate Acid: Toxicity to fish: mortality NOEC 24 mg/L 96h (Lepomis macrochirus), LC50 34-62 mg/L 96h (Lepomis macrochirus); Toxicity to Daphnia and other aquatic invertebrates: EC50 113 mg/L 48h (Daphnia magna)
 - Sodium hydroxide: LC50 125 mg/L in 96 hrs (mosquito fish); EC50 40.38 mg/L in 48 hrs (water flea)
 - Sodium Hypochlorite Solution: no data available
 - Urease Type IX: no data available
- Mobility: no data available
- Biodegradation: no data available
- Bioaccumulation: no data available

- Ethylenediamine Tetraacetate Acid: Lepomis macrochirus 80µg/L 28d, bioconcentration factor (BCF): 1,8
- All other hazardous components: no data available

SECTION 13. DISPOSAL CONSIDERATIONS

For small quantities: Cautiously add to a large stirred excess of water. Adjust the pH to neutral. Flush the aqueous solutions down the drain with plenty of water.

SECTION 14. TRANSPORT INFORMATION - IATA

- Hazard Class: Not Hazardous

SECTION 15. REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture: no data available
- Chemical safety assessment: no data available

SECTION 16. OTHER INFORMATION

The above information is believed to be correct but does not purport to be all inclusive and should be used only as a guide for experienced personnel. Cell Biolabs, Inc. shall not be held liable for any damage resulting from the handling or from contact with the above product(s).

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