

Safety Data Sheet

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

Catalog Number: STA-378
Product Name: Creatinine Assay Kit
Recommended Use: Laboratory Research Reagents

MANUFACTURER:

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SECTION 2. HAZARDS IDENTIFICATION

Creatinine Standard (Part No. 237801): One 0.5 mL vial of a 100 mg/dL Creatinine solution

Classification:

Corrosive to metals, Category 1 (H290)
Skin corrosion, Category 1B (H314)
Serious eye damage, Category 1 (H318)
Specific target organ toxicity - single exposure, Category 3, Respiratory system (H335)


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|---|--|
| Pictogram |  |
| Signal Word | Danger |
| <p>Hazard Statements: May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314), May cause respiratory irritation (H335).</p> | |
| <p>Precautionary Statements: Avoid breathing dust/fume/gas/mist/vapors/spray (P261), 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), 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.</p> | |

(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), Store in a well-ventilated place. Keep container tightly closed (P403 + P233), 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).

Creatinine Reaction Reagent (Part No. 237803): One 30 mL bottle

Classification:

- Flammable liquids, Category 2 (H225)
- Corrosive to metals, Category 1 (H290)
- Acute toxicity, Oral, Category 4 (H302)
- Acute toxicity, Inhalation, Category 4 (H332)
- Skin corrosion, Category 1A (H314)
- Serious eye damage, Category 1 (H318)
- Specific target organ toxicity - single exposure, Category 3, Respiratory system (H335)
- Reproductive toxicity, Category 2 (H361)
- Acute aquatic toxicity, Category 2 (H401)
- Chronic aquatic toxicity, Category 3 (H412)


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|---|--|
| Pictogram |  |
| Signal Word | Danger |
| <p>Hazard Statements: Highly flammable (H225), May be corrosive to metals (H290), Harmful if swallowed or inhaled (H302 + H332), Causes severe skin burns and eye damage (H314), Causes serious eye damage, (H318), May cause respiratory irritation (H335), Suspected of damaging fertility or the unborn child (H361), Toxic to aquatic life (H401), Harmful to aquatic life with long lasting effects (H412).</p> | |
| <p>Precautionary Statements: Obtain special instructions before use (P201), Do not handle until all safety precautions have been read and understood (P202), Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Keep container tightly closed (P233), Keep only in original container (P234), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting/equipment (P241), Use only non-sparking tools (P242), Take precautionary measures against static discharge (P243), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271),</p> | |

Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: call a POISON CENTER / doctor if you feel unwell. Rinse mouth. Do NOT induce vomiting (P301 + P312 + 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), If skin irritation occurs: get medical advice/attention (P332 + P313), If eye irritation persists: get medical attention (P337 + P313), Take off contaminated clothing and wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Absorb spillage to prevent material damage (P390), Store in a well-ventilated place. Keep container tightly closed and keep cool (P403 + P233 + P235), 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).

Acid Solution (Part No. 237804): One 10 mL amber glass bottle.

Classification:

- Flammable solids, Category 2 (H228)
- Acute toxicity, Oral, Category 3 (H301)
- Acute toxicity, Inhalation, Category 4 (H332)
- Acute toxicity, Dermal, Category 3 (H311)
- Skin sensitization, Category 1 (H317)

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|--|--|
| Pictogram |  |
| Signal Word | Danger |
| <p>Hazard Statements: Flammable solid (H228), Toxic if swallowed or in contact with skin (H301 + H311), May cause an allergic skin reaction (H317), Harmful if inhaled (H332).</p> | |
| <p>Precautionary Statements: Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Ground/bond container and receiving equipment (P240), Use explosion-proof electrical/ventilating/lighting/equipment (P241), Avoid breathing dust/fume/gas/mist/vapors/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Use only outdoors or in a well-ventilated area (P271), Contaminated work clothing should not be allowed out of the workplace (P272), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF SWALLOWED: Immediately call a POISON CENTER or</p> | |

doctor/physician. Rinse mouth. (P301 + P310 + P330),
 IF ON SKIN: wash with plenty of soap and water. Call a POISON CENTER/or doctor/physician if you feel unwell. (P302 + P352 +P312), IF INHALED: remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/or doctor/physician if you feel unwell. (P304 + P340 + P312),
 If skin irritation or rash occurs: Get medical advice/attention (P333 + P313), Take off contaminated clothing and wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Creatinine Standard (Part No. 237801): One 0.5 mL vial of a 100 mg/dL Creatinine solution

| CHEMICAL NAME | CONCENTRATION | CAS # |
|-------------------|---------------|-----------|
| Hydrochloric Acid | 0.1 N | 7647-01-0 |

Creatinine Reaction Reagent (Part No. 237803): One 30 mL bottle

| CHEMICAL NAME | CONCENTRATION | CAS # |
|--|---------------|------------|
| Sodium Dodecyl Sulfate | 5.33 % | 151-21-3 |
| Sodium Phosphate Tribasic (Trisodium Phosphate) | 66.7 mM | 10101-89-0 |
| Sodium Hydroxide | 10 N | 1310-73-2 |
| Sodium Borate Decahydrate ACS | 66.7 mM | 1303-96-4 |
| Ethanol | 13.33% | 64-17-5 |

Acid Solution (Part No. 237804): One 10 mL amber glass bottle.

| CHEMICAL NAME | CONCENTRATION | CAS # |
|---------------|---------------|---------|
| Picric Acid | 50 mM | 88-89-1 |

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
 - Hydrochloric acid: no data available
 - Sodium dodecyl sulfate: LD50 Oral 1.288 mg/kg (rat); LC50 Inhalation >3.9 mg/m³ (rat); LD 50 Dermal 580 mg/kg (rabbit)
 - Sodium Phosphate Tribasic (Trisodium Phosphate): LD50 Oral 7.400 mg/kg (rat)
 - Sodium hydroxide: no data available
 - Sodium Borate Decahydrate ACS: LD50 Oral 4.500-5.000 mg/kg (rat), LD50 Dermal 10.000 mg/kg (rabbit)
 - Ethanol: LD50 Oral 7.060 mg/kg (rat), LC50 Inhalation 20000 ppm 10h (rat)
 - Picric Acid: no data available
- Skin corrosion/irritation
 - Hydrochloric acid: no data available
 - Sodium dodecyl sulfate: Irritation (rabbit)
 - Sodium Phosphate Tribasic (Trisodium Phosphate): no data available
 - Sodium hydroxide: Causes severe burns 24h (rabbit)
 - Sodium Borate Decahydrate ACS: no data available
 - Ethanol: Irritating to skin 24h (rabbit)
 - Picric Acid: no data available
- Serious eye damage/irritation
 - Hydrochloric acid: no data available
 - Sodium dodecyl sulfate, Sodium hydroxide: Risk of serious damage (rabbit)
 - Sodium Phosphate Tribasic (Trisodium Phosphate): no data available
 - Sodium hydroxide: Eyes corrosive 24h (rabbit)
 - Sodium Borate Decahydrate ACS: no data available
 - Ethanol: Mild eye irritation 24h Draize test (rabbit)
 - Picric Acid: no data available
- Respiratory or skin sensitization
 - Hydrochloric acid: no data available
 - Sodium dodecyl sulfate: May cause respiratory irritation

- Sodium Phosphate Tribasic (Trisodium Phosphate): no data available
- Sodium hydroxide: Eyes corrosive 24h (rabbit)
- Sodium Borate Decahydrate ACS: no data available
- Ethanol: no data available
- Picric Acid: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
 - Hydrochloric acid: no data available
 - Sodium dodecyl sulfate: LC50 3.6 mg/L in 96 hrs (rainbow trout); mortality NOEC 19.5 mg/L in 96 hrs (rainbow trout); mortality LOEC 4.6 mg/L in 8 days (fathead minnow); growth inhibition LOEC 2.68 mg/L in 6 days (algae)
 - Sodium Phosphate Tribasic (Trisodium Phosphate): Toxicity to fish: LC50 2.400 mg/L 48h (*Leuciscus idus*)
 - Sodium hydroxide: LC50 125 mg/L in 96 hrs (mosquito fish); EC50 40.38 mg/L in 48 hrs (water flea)
 - Sodium Borate Decahydrate ACS: Toxicity to fish: LC50 178 mg/L 72h (*Carassius auratus*); Toxicity to Daphnia and other aquatic invertebrates: EC50 1.085-1.402 mg/L 48h (*Daphnia magna*); Toxicity to algae: IC50 158 mg/L 96h (*Desmodesmus subspicatus*)
 - Ethanol: no data available
 - Picric Acid: no data available
 - Acetate Acid: Toxicity to fish: LC50 79-88 mg/L 96h (*Pimephales promelas*), LC50 75 mg/L 96h (*Lepomis macrochirus*); Toxicity to Daphnia and other aquatic invertebrates: EC50 65 mg/L 48h (*Daphnia magna*)
- Mobility: no data available
- Biodegradation: no data available
 - Acetate Acid: readily biodegradable
 - All other hazardous components: no data available
- Bioaccumulation: 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: 8
- Subsidiary Class: none
- Packing Group: II
- UN-No: UN1824



NOTE: THIS PRODUCT IS SHIPPED AS "DANGEROUS GOODS IN EXCEPTED QUANTITIES" UNDER IATA REGULATION 2.6.2.2.

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).

Revised 03/27/2018