CELL BIOLABS, INC.
Creating Solutions for Life Science Research

Safety Data Sheet

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

Catalog Number: MET-5010
Product Name: Bilirubin Assay Kit
Recommended Use: Laboratory Research Reagents

MANUFACTURER:

Cell Biolabs, Inc.
7758 Arjons Drive
San Diego, CA 92126

EMERGENCY CONTACT:

+1 858 271 6500
info@cellbiolabs.com

SECTION 2. HAZARDS IDENTIFICATION

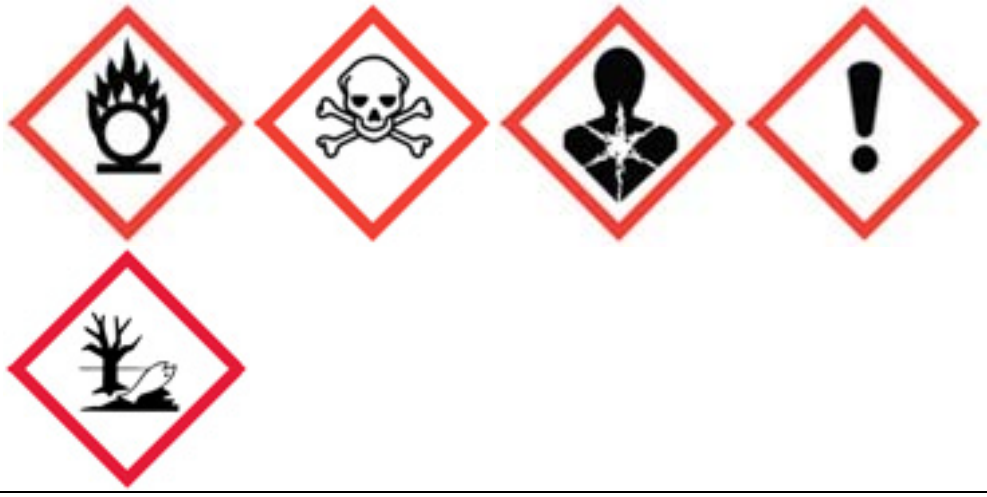
Accelerant (Part No. 50102C): One 30 mL bottle.

Classification:
Eye irritation, Category 2A (H319)

Pictogram	
Signal Word	Warning
Hazard Statements: Causes serious eye irritation (H319).	
Precautionary Statements: Wash skin thoroughly after handling (P264), Wear protective gloves/protective clothing/eye protection/face protection (P280), 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).	

Diazo Reagent (Part No. 50103C): One 6 mL bottle.

Classification:
Oxidizing solids, Category 3 (H272)
Acute toxicity, Oral, Category 3 (H301)
Skin irritation, Category 2A (H315)
Eye irritation, Category 2A (H319)
Skin sensitization, Category 1 (H317)
Carcinogenicity, Category 1B (H350)
Acute aquatic toxicity, Category 1 (H400)

Pictogram	
Signal Word	Danger

Hazard Statements: May intensify fire; oxidizer (H272), Toxic if swallowed (H301), Causes skin irritation (H315), May cause an allergic skin reaction (H317), Causes serious eye irritation (H319), May cause cancer (H350), Very toxic to aquatic life (H400).

Precautionary Statements: Obtain special instructions before use (P201), Do not handle until all safetly precautions have been read and understood (P202), Keep away from heat/sparks/open flames/hot surfaces. No smoking (P210), Keep/Store away from clothing/combustible materials (P220), Take any precaution to avoid mixing with combustibles (P221), Avoid breathing dust/fume/gas/mist/vaoprs/spray (P261), Wash skin thoroughly after handling (P264), Do not eat, drink, or smoke when using this product (P270), Contaminated work clothing should not be allowed out of the workplace (P272), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), Use personal protective equipment as required (P281), IF SWALLOWED: Immediately call a POISON CENTER or doctor/physican. Rinse mouth. (P301 + P310 + P330), IF ON SKIN: wash with plenty of soap and water (P302 + P352), 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 exposed or concerned: Get medical advice/attention (P308 + P313), If skin irritation or rash occurs: Get medical advice/attention (P333 + P313), If eye irritation persists: get medical advice/attention (P337 + P313), Take off contaminated clothing and

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wash before reuse (P362), In case of fire: use dry sand, dry chemical or alcohol-resistant foam to extinguish (P370 + P378), Collect spillage (P391), Store locked up (P405), Dispose of contents/container to an approved waste disposal plant (P501).

Negative Control Reagent (Part No. 50104C): One 6 mL bottle.

Classification:
Skin irritation, Category 2A (H315)
Eye irritation, Category 2A (H319)
Skin sensitization, Category 1 (H317)
Acute aquatic toxicity, Category 3 (H402)

Pictogram	
Signal Word	Warning
Hazard Statements: Causes skin irritation (H315), May cause an allergic skin reaction (H317), Causes serious eye irritation (H319), Harmful to aquatic life (H402).	
Precautionary Statements: Avoid breathing dust/fume/gas/mist/vaoprs/spray (P261), Wash skin thoroughly after handling (P264), Contaminated work clothing should not be allowed out of the workplace (P272), Avoid release to the environment (P273), Wear protective gloves/protective clothing/eye protection/face protection (P280), IF ON SKIN: wash with plenty of soap and water (P302 + P352), 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 or rash occurs: Get medical advice/attention (P333 + P313), If eye irritation persists: get medical advice/attention (P337 + P313), Take off contaminated clothing and wash before reuse (P362), Dispose of contents/container to an approved waste disposal plant (P501).	

Assay Reagent A (Part No. 50105C): One 15 mL bottle.

Classification:
Corrosive to metals, Category 1 (H290)
Skin corrosion, Category 1A (H314)
Serious eye damage, Category 1 (H318)
Acute aquatic toxicity, Category 3 (H402)

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Pictogram	
Signal Word	Danger
Hazard Statements: May be corrosive to metals (H290), Causes severe skin burns and eye damage (H314), Causes serious eye damage, (H318), Harmful to aquatic life (H402).	
Precautionary Statements: Keep only in origianl 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 comforable 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), 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).	

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Accelerant (Part No. 50102C): One 30 mL bottle.

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Benzoate	**<500 mM**	**532-32-1**

Diazo Reagent (Part No. 50103C): One 6 mL bottle.

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Nitrite	**<50 mM**	**7632-00-0**
Sulfanilic Acid	**<50 mM**	**121-57-3**

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Negative Control Reagent (Part No. 50104C): One 6 mL bottle.

CHEMICAL NAME	CONCENTRATION	CAS #
Sulfanilic Acid	**<50 mM**	**121-57-3**

Assay Reagent A (Part No. 50105C): One 15 mL bottle.

CHEMICAL NAME	CONCENTRATION	CAS #
Sodium Hydroxide	**<3 M**	**1310-73-2**

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 Benzoate: LD50 Oral 2.100mg/kg (rat)
    - Sodium Nitrite: LD50 Oral-rat-157,9mg/kg; LD50 Oral-mouse-175mg/kg
    - Sulfanilic Acid: LD50 Oral 12.300 mg/kg (rat); LD50 Dermal >2.000mg/kg (rat male and female); LD50 Intravenous 6.000mg/kg (rat)
- Skin corrosion/irritation
    - Sodium Benzoate: No skin irritation (rabbit)
    - Sodium Nitrite: no skin irritation-rabbit
    - All other hazardous components: no data available
- Serious eye damage/irritation
    - Sodium Benzoate: Eye irritation (rabbit)

  - Sodium Nitrite: moderate eye irritation-rabbit
  - Sulfanilic Acid: irritating to eyes (rabbit)
  - Sodium Hydroxide: no data available
- Respiratory or skin sensitization: no data available
- Germ cell mutagenicity: no data available
- Carcinogenicity: no data available
- Reproductive toxicity: no data available

SECTION 12. ECOLOGICAL INFORMATION

- Ecotoxicity
  - Sodium Benzoate: Toxicity to fish: LC50 484mg/l 96h (Pimephales promelas)
  - Sodium Nitrite: Toxicity to fish: flow through test LC50 0,94-1.92mg/l 96h (Oncorhynchus mykiss); Mortality NOEC 0,54mg/l 96h (Oncorhynchus mykiss); Toxicity to daphnia and other aquatic invertebrates: EC50 12,5mg/l 48h (Daphnia magna)
  - Sulfanilic Acid: Toxicity to fish: LC50 >100 mg/L in 96 hrs (Danio rerio); Toxicity to daphnia and other aquatic invertebrates: EC50 23 mg/L in 48 hrs (Daphnia magna); Toxicity to algae: EC50 97 mg/L in 72 hours (Desmodesmus subspicatus)
  - Sodium Hydroxide: no data available
- Mobility: no data available
- Biodegradation: 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

DOT

- Hazard Class: 8
- Packing Group: II
- UN-No: UN1824
- Poison Inhalation Hazard: No

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).

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