

MATERIAL SAFETY DATA SHEET

KIT COMPONENTS

Product code	Product Name
95142-100 95142-800 95142-04K	AccuStart II PCR ToughMix

Components

84253 84254	AccuStart II PCR ToughMix (2X)
84255 84256	GelTrack® Loading Dyes (50X)

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: **AccuStart™ II PCR ToughMix (2X)**
Product Code(s): Catalog numbers: 95142-100; 95142-800; 95142-04K
Part Numbers: 84253, 84254

General Use: Laboratory reagent
For Research Use Only, Not for Use in Diagnostic Procedures

MSDS Issue Date: 17 December, 2012

Manufacturer:
QUANTA BIOSCIENCES INC.
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SECTION 2 – HAZARDS IDENTIFICATION

Emergency Overview: May cause eye, skin or respiratory irritation.

Potential Health Effects:

EYES: May cause eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

SKIN: May cause skin irritation.

INGESTION: May be harmful if swallowed in large quantities.

INHALATION: May cause irritation to the respiratory system if liquid is splashed or aerosolized.

Chronic Effects / Carcinogenicity: No chemical components in this material at reportable thresholds are listed by IARC, OSHA or NTP.

Potential Environmental Effects: The product components are not classified as environmentally hazardous.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<u>Hazardous Ingredients</u>	<u>CAS Registry No.</u>	<u>Percentage (wt/wt)</u>
Glycerol	56-81-5	0.5–1.3
Tris-hydroxymethylaminomethane	77-88-1	0.5–1.3

OSHA Regulatory Status: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

SECTION 4 – FIRST AID MEASURES

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EYES: Immediately flush with contaminated eye(s) with lukewarm, gently flowing water for at least 5 minutes, while holding the eyelids(s) open. Remove any contact lenses and continue rinsing. Get medical attention if irritation persists after washing.

SKIN: Remove contaminated clothes and rinse skin thoroughly with water for at least 15 minutes. If irritation develops and persists, Get medical attention.

INGESTION: Rinse mouth thoroughly with water. If large amounts have been ingested, give 2 to 8 ounces of water. Get medical attention.

INHALATION: If symptoms are experienced, remove source of contamination or move victim to fresh air. Obtain medical advice.

SECTION 5 – FIRE FIGHTING MEASURES

Flammable Properties

Flash Point: Does not flash Method: Not applicable
Flammable Limits: LFL: Not applicable UFL: Not applicable
Autoignition Temperature: Not applicable

EXTINGUISHING MEDIA: Dry chemical

FIRE & EXPLOSION HAZARDS: None. Product will not support combustion.

FIRE FIGHTING INSTRUCTIONS: Wear self-contained breathing apparatus and protective suit for surrounding fire.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Use personal protective equipment. See Section 8.

METHODS FOR CLEANING UP: Soak up with inert absorbent material.

SECTION 7 – HANDLING AND STORAGE

HANDLING: Local exhaust is recommended. Avoid inhalation of vapors and spray mist and contact with skin and eyes. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. Observe good industrial hygiene practices.

STORAGE: Store at -20°C in closed original container. Keep away from food, drink and animal feeding stuffs. Store away from incompatible materials.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide adequate ventilation and minimize the risk of inhalation of vapors and mists.

RESPIRATORY PROTECTION: Not needed if ventilation is adequate to control occupational exposures. If needed, refer to 29 CFR 1910.134, CSA Z94.4-93, or European Standard EN 149 for complete regulations. Seek advice from local supervisor.

SKIN PROTECTION: Wear protective gloves. Use skin protection. Apron and long sleeves are recommended.

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EYE PROTECTION: Risk of contact: Wear approved safety goggles.
 EXPOSURE GUIDELINES: Glycerin (mist) total dust: 15 mg/m³ TWA (OSHA)
 Glycerin (mist) respirable fraction: 5 mg/m³ TWA (OSHA)
 Glycerin mist: 10 mg/m³ TWA (ACGIH)

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Clear liquid
 ODOR: Odorless
 BOILING POINT: No data available
 VAPOR PRESSURE: No data available
 SOLUBILITY IN WATER: Complete
 SPECIFIC GRAVITY: No data available
 pH: 8.7 (+/- 0.1)
 VOC: No data available

SECTION 10 – STABILITY AND REACTIVITY

STABILITY: This product is stable under expected conditions of use.
 MATERIALS TO AVOID: Oxidizing agents; alkalies.
 CONDITIONS TO AVOID: Heat.
 HAZARDOUS DECOMPOSITION PRODUCTS: At elevated temperatures, acrolein, carbon oxides, nitrogen oxides

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity

Chemical Name	Oral LD ₅₀ (rat/mouse)	Dermal LD ₅₀ (rat/rabbit)	Inhalation LC ₅₀ (rat/mouse)
Glycerol	12600 mg/kg (rat)	>1000 mg/kg (rabbit)	>570 mg/m ³ (rat)
Tris(hydroxymethyl) aminomethane	5900 mg/kg (rat)	-	-

Chronic Toxicity

Carcinogenic effects: The components of this product are not designated as potential carcinogens by IARC (Group 1, 2A or 2B), NTP or OSHA.
 Mutagenic effects: No data available.
 Teratogenic effects: No data available.

Target organs: No data available.

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity: The product components are not classified as environmentally hazardous.

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<u>Chemical Name</u>	<u>Fish</u> <u>LC₅₀ (species, hours)</u>	<u>Invertebrates</u> <u>EC₅₀ or IC₅₀</u> <u>(species, hours)</u>	<u>Plant</u> <u>EC₅₀ (species, hours)</u>
Glycerol	5000 mg/l (Goldfish)	-	-

Mobility: The product is water soluble and may spread in water systems.

Persistence and Degradability: No data available.

Bioaccumulation Potential: No data available.

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local, state, provincial or federal requirements, as applicable

SECTION 14 – TRANSPORT INFORMATION

US DOT	Not regulated
Proper Shipping Name	
UN Number	
Hazard Class	
Packing Group	
Special Instructions	
IATA	Not regulated
Proper Shipping Name	
UN Number	
Hazard Class	
Packing Group	
Special Instructions	
IMDG	Not regulated
Proper Shipping Name	
UN Number	
Hazard Class	
Packing Group	
Special Instructions	

SECTION 15 – REGULATORY INFORMATION

U.S. State Regulations

California Proposition 65 - This product contains the following Proposition 65 chemicals:
None

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.



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WHMIS Hazard class: D2B

SECTION 16 – OTHER INFORMATION

MSDS Status: Original

This material is sold for research and development purposes only. It is not for any human or animal therapeutic or clinical diagnostic use. It is not intended for food, drug, household, agricultural, or cosmetic use. An individual technically qualified to handle potentially hazardous chemicals must supervise the use of this material.

The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Since Quanta BioSciences cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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SECTION 1 – PRODUCT AND COMPANY IDENTIFICATION

Product Name: GelTrack Loading Dyes (50X)
Product Code(s): 84255

General Use: Laboratory reagent
For Research Use Only, Not for Use in Diagnostic Procedures

MSDS Issue Date: 26 November, 2012

Manufacturer:
QUANTA BIOSCIENCES INC.
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SECTION 2 – COMPOSITION/DATA ON COMPONENTS

<u>Substance Name</u>	<u>CAS Registry No.</u>	<u>SARA 313</u>
GelTrack Loading Dyes (50X)	None	No

SECTION 3 – HAZARDS IDENTIFICATION

Emergency Overview
Avoid contact and inhalation.

Form
Liquid

OSHA Hazards

Irritant

HMIS Classification

Health Hazard: 2
Flammability: 0
Physical hazards: 0

NFPA Rating

Health Hazard: 2
Fire: 0
Reactivity Hazard: 0

Potential Health Effects

Inhalation May be harmful if inhaled. Causes respiratory tract irritation

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SECTION 4 – FIRST AID MEASURES

Skin contact Wash off immediately with plenty of soap and water. If irritation develops, get medical attention.
Eye contact Rinse thoroughly with plenty of water, also under the eyelids. If irritation persists, get medical attention.
Ingestion Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Inhalation If breathed in, move person into fresh air. If not breathing give artificial respiration. Consult a physician.

SECTION 5 – FIRE FIGHTING MEASURES

Flamable properties
Flash point no data available
Ignition temperature no data available
Suitable extinguishing media Use water spray, alcohol resistant foam, dry chemical or carbon dioxide
Special protective equipment for Firefighters Wear self-contained breathing apparatus and protective suit

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Personal precautions Use personal protective equipment
Environmental precautions Do not let product enter drains

SECTION 7 – HANDLING AND STORAGE

Handling Local exhaust is recommended. Avoid inhalation of vapors and spray mist and contact with skin and eyes. Wear approved safety goggles. Wear protective gloves and appropriate clothing to prevent skin contact. Observe good industrial hygiene practices.
Storage Store at –20°C to 4°C in closed original container in a dry place. Keep away from food, drink and animal feeding stuffs. Store away from incompatible materials.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

Exposure limits

Engineering measures Ensure adequate ventilation, especially in confined areas

Personal protective equipment

Respiratory protection In case of insufficient ventilation, wear suitable respiratory equipment

Hand protection Protective gloves

Eye protection Safety glasses with side-shields

Skin and body protection Lightweight protective clothing

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Hygiene measures Handle in accordance with good industrial hygiene and safety practice
Environmental exposure
controls Prevent product from entering drains

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

General Information

Form Green Liquid

Important Health Safety and Environmental Information

Boiling point/range	°C	No data available	°F	No data available
Melting point/range	°C	No data available	°F	No data available
Flash point	°C	No data available	°F	No data available
Autoignition temperature	°C	No data available	°F	No data available
Oxidizing properties	No information available			
Water solubility	No data available			

SECTION 10 – STABILITY AND REACTIVITY

Stability Stable under recommended storage conditions
Materials to avoid Strong oxidizing agents
Hazardous decomposition products Hazardous decomposition products formed under fire conditions. - Carbon oxides, nitrogen oxides (NOx), Sulphur oxides, Sodium oxides
Polymerization Hazardous polymerization does not occur

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity

Principle Routes of Exposure/ Potential Health Effects

Eyes Causes eye irritation
Skin May be harmful if absorbed through skin. Causes skin irritation.
Inhalation May be harmful if inhaled. Causes respiratory tract irritation.
Ingestion May be harmful if swallowed

Specific Effects

Carcinogenic effects No information available
Mutagenic effects No information available
Reproductive toxicity No information available
Sensitization No information available

Target Organ Effects No information available

SECTION 12 – ECOLOGICAL INFORMATION

Ecotoxicity effects No information available
Mobility No information available
Biodegradation Inherently biodegradable

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Bioaccumulation No information available

SECTION 13 – DISPOSAL CONSIDERATIONS

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14 – TRANSPORT INFORMATION

IATA: Non-hazardous for air transport

RIS/ADR: Non-hazardous for road transport

IMDG: Non-hazardous for sea transport

SECTION 15 – REGULATORY INFORMATION

OSHA Hazards: Irritant

International Inventories

U.S. Federal Regulations

SARA 313: Not regulated

Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

U.S. State Regulations: None listed

California Prop. 65 components

This product does not contain any chemicals known to State of California to cause cancer, birth, or any other reproductive defects.

Canada

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR.

WHMIS Hazard class: Not controlled

SECTION 16 – OTHER INFORMATION

MSDS Status: original

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The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as

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being all inclusive and is to be used only as a guide. All materials and mixtures may be present unknown hazards and should be used with caution. Since Quanta BioSciences cannot control the actual methods, volumes, or conditions of use, the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRANTY, EXPRESS OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE.

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