SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

### KIT COMPONENTS

<table>
<thead>
<tr>
<th>Product code</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>95135-100</td>
<td>AccuStart™ II Mouse Genotyping Kit</td>
</tr>
<tr>
<td>95135-500</td>
<td></td>
</tr>
</tbody>
</table>

**Components**

<table>
<thead>
<tr>
<th>Product code</th>
<th>Product Name</th>
</tr>
</thead>
<tbody>
<tr>
<td>84228</td>
<td>AccuStart II GelTrack PCR SuperMix</td>
</tr>
<tr>
<td>95091-002</td>
<td>Extracta™ DNA Prep for PCR - Tissue</td>
</tr>
<tr>
<td>95091-025</td>
<td></td>
</tr>
<tr>
<td>84156</td>
<td>Extraction Reagent</td>
</tr>
<tr>
<td>84158</td>
<td></td>
</tr>
<tr>
<td>84157</td>
<td>Stabilization Reagent</td>
</tr>
<tr>
<td>84159</td>
<td></td>
</tr>
</tbody>
</table>
SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier: AccuStart™ II GelTrack™ PCR SuperMix
   Product Code(s): Part Number: 84228

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

1.3 Manufacturer/Supplier
   QUANTA BIOSCIENCES INC.
   202 PERRY PKWY., SUITE 1
   GAITHERSBURG, MD 20877
   USA
   Phone: +1 (301) 956-1670
   FAX: +1 (301) 956-1681
   Email: technical.support@quantabio.com
   www.quantabio.com

1.4 Emergency Telephone:
   Quanta BioSciences: +1 (240) 454-8912 (09:00 to 17:00 EST)
   Or contact your local distributor for Quanta BioSciences products.

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
   This product has been classified in accordance with Directive 1999/45/EC and does not meet the criteria for classification.

2.2 Label elements
   Labelling in accordance with Directive 1999/45/EC is not required.

2.3 Other hazards
   None known.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>EINECS # / EC #</th>
<th>Chemical Name</th>
<th>Percentage (wt/wt)</th>
<th>Classifications (EU DSD / EU CLP)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1185-53-1</td>
<td>214-684-5</td>
<td>2-amino-2-(hydroxymethyl)propane-1,3-diol hydrochloride</td>
<td>0.5 – 1.3</td>
<td>Xi; R36/37/38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3</td>
</tr>
<tr>
<td>56-81-5</td>
<td>200-289-5</td>
<td>Glycerol</td>
<td>0.5 – 1.3</td>
<td>Substance with community workplace exposure limits</td>
</tr>
</tbody>
</table>

*CLP = Regulation 1272/2008 – Classification, Labelling, and Packaging

See Section 16 for full text of risk phrases and hazard statements.
SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures:
- **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.

4.2 Most important symptoms and effects, both acute and delayed:
- **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.

4.3 Indication of any immediate medical attention and special treatment needed:
None

SECTION 5 – FIREFIGHTING MEASURES

5.1 Extinguishing media
Use media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture
None

5.3 Advice for firefighters
None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear gloves and chemical eye goggles or glasses with side shields.

6.2 Environmental precautions
Do not discard in drains or sewer systems.

6.3 Methods and material for containment and cleaning up
Use absorbent suitable to the size and location of the spill. Discard absorbent with hazardous waste if applicable with local regulations.

6.4 Reference to other sections
Review Sections 2, 3, and 8

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Avoid breathing mist, vapours or aerosols. Use only in a well-ventilated area.

7.2 Conditions for safe storage, including
Store at -20°C in original container. Keep away from food, drink and
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

any incompatibilities animal feeding stuffs.

7.3 Specific end use(s) Not available

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.1 Occupational exposure limits:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Limit value – 8 hours</th>
<th>Limit value – Short term</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>ppm mg/m³ ppm mg/m³³</td>
<td>ppm mg/m³³</td>
</tr>
<tr>
<td>Austria</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>- 10</td>
<td>-</td>
</tr>
<tr>
<td>Denmark</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>European Union</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>- 10</td>
<td>-</td>
</tr>
<tr>
<td>Germany</td>
<td>- 10*</td>
<td>- 100*</td>
</tr>
<tr>
<td>Hungary</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>- 10</td>
<td>-</td>
</tr>
<tr>
<td>Spain</td>
<td>- 10</td>
<td>-</td>
</tr>
<tr>
<td>Sweden</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>- 10</td>
<td>-</td>
</tr>
</tbody>
</table>

* inhalable aerosol

8.1.2 Currently recommended monitoring procedures: Not determined

8.1.3 Exposure guidelines for air contaminants, if any: Not determined

8.1.4 DNELs and PNECs for exposure scenarios: Not determined

8.1.5 Control banding for risk management: Not determined

8.2 Exposure controls:

Engineering controls: Use in well-ventilated area with mechanical exhaust when operations cause vapour or aerosol formation.

Respiratory protection: No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limits (OEL).

Skin & body protection: Use protective gloves made of: butyl rubber. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Change out of clothes that become wet.

Eye protection: Wear approved chemical safety goggles or safety glasses with side shields where exposure to vapour or aerosol or contact with
eyes is reasonably probable. Provide eye wash station.

Thermal hazards: None
Environmental exposure controls: None

### SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Green liquid</td>
</tr>
<tr>
<td>Odour</td>
<td>None</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not applicable</td>
</tr>
<tr>
<td>pH</td>
<td>8.7</td>
</tr>
<tr>
<td>Melting/freezing point</td>
<td>Not measured</td>
</tr>
<tr>
<td>Initial boiling point &amp; boiling range:</td>
<td>Not measured</td>
</tr>
<tr>
<td>Flash point</td>
<td>Does not flash</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not measured</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits:</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>Not measured</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not measured</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not measured</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Complete in water</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>Not measured</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not measured</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>None</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>None</td>
</tr>
<tr>
<td>Other</td>
<td>None</td>
</tr>
</tbody>
</table>

9.2 Other information:
None

### SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity: Stable
10.2 Chemicals stability: Stable
10.3 Possibility of hazardous reactions: Will not occur
10.4 Conditions to avoid: Static discharges, hot sources, ignition sources
10.5 Incompatible materials: Avoid accidental contact with strong oxidizers (e.g., nitric acid)

10.6 Hazardous decomposition products: In case of fire, formation of CO₂

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Mixture:
The acute effects of this product have not been tested. Data on individual components are tabulated below:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD₅₀ (mg/kg (rat))</th>
<th>Dermal LD₅₀</th>
<th>Inhalation LC₅₀ (mg/m³ (rat))</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tris(hydroxymethyl) aminomethane</td>
<td>5900</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Glycerol</td>
<td>12600</td>
<td>&gt;1000</td>
<td>&gt;570</td>
</tr>
</tbody>
</table>

Category: Available data

Acute toxicity: May be harmful if swallowed in large quantities. May cause irritation to the respiratory system if liquid is splashed or aerosolized.

Skin/eye irritation: May cause skin irritation. May cause eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.

Corrosivity: None

Respiratory or skin sensitisation: Not expected

Germ cell mutagenicity: Insufficient information for classification.

Carcinogenicity: Not expected. None of the components at reportable levels have been designated as potential carcinogens by IARC (Group 1, 2A or 2B) or other foreign national agencies.

Reproductive toxicity: Not expected if occupational exposure levels are observed.

STOT-SE: May cause respiratory irritation.

STOT-RE: Not expected if occupational exposure levels are observed.

Aspiration hazard: Not expected

ROUTE OF ENTRY: Skin and/or eye contact. Less likely routes are inhalation or ingestion.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity: Does not meet criteria for acute ecotoxicity based on available information.

12.2 Persistence and degradability: Not determined. Insufficient information

12.3 Bioaccumulative potential: Not determined. Insufficient information

12.4 Mobility in soil: Not determined. Insufficient information

12.5 Results of PBT and vPvB assessment: Does not contain any ingredients that are assessed as PBT or vPvB.

12.6 Other adverse effects: None known
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:
Discard contents in compliance with local regulations.

SECTION 14 – TRANSPORT INFORMATION

ARD/RID
Proper Shipping Name
Class
Classification Code
UN Number
Packing Group
Environmental hazard
Not regulated

IMDG
Proper Shipping Name
Class
EmS
UN Number
Packing Group
Flashpoint
Not regulated

ICAO/IATA
Proper Shipping Name
Class
Packing Instruction
UN Number
Packing Group
Not regulated

Special precautions for user: None known

SECTION 15 – REGULATORY INFORMATION

15.1 Safety health and environmental regulations:
Consult the most current list of restrictions for details. The following chemicals are indicated in Annex XII of Regulation 1907/2007.
None

15.2 Chemical Safety Assessment:
Has not been done.

SECTION 16 – OTHER INFORMATION

SDS Status: Original
Replaces version: NA
Changes: updated format

List of R-phrases in Section 3
R36/37/38 Irritating to eyes, respiratory system and skin.
List of Hazard Statements in Section 3
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Methods used for evaluation: For CLP, other methods as described in each section of Parts 3 and 4 of Annex I

Classification in accordance with Regulation (EU) 1272/2008 in advance of June 1, 2015 required date:
Does not meet criteria for classification.

KEY: DNEL = Derived No-Effect Level; IARC = International Agency for Research of Cancer; WEL = Workplace Exposure Limits; OEL = Occupational Exposure Limits; PBT = Persistent, Bioaccumulative, Toxic; PNEC = Predicted No-Effect Concentration; TWA = Time Weighted Average (8 hours); STEL = Short Term Exposure Limit (15 minutes); ppm = parts per million; vPvB = very Persistent, very Bioaccumulative

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.

AccuStart and GelTrack are trademarks of Quanta BioSciences, Inc.
SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier: Extraction Reagent
Product Code(s): 84156; 84158

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

1.3 Manufacturer/Supplier
QUANTA BIOSCIENCES INC.
202 PERRY PKWY., SUITE 1
GAITHERSBURG, MD 20877
USA
Phone: +1 (301) 956-1670
FAX: +1 (301) 956-1681
Email: technical.support@quantabio.com
www.quantabio.com

1.4 Emergency Telephone:
Quanta BioSciences: +1 (301) 947-2913 (09:00 to 17:00 EST)
Or contact your local distributor for Quanta BioSciences products.

SECTION 2 – HAZARDS IDENTIFICATION

2.4 Classification of the substance or mixture
This product has been classified in accordance with Directive 1999/45/EC and does not meet the criteria for classification.

2.5 Label elements
Labelling in accordance with Directive 1999/45/EC is not required.

2.6 Other hazards
None known.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>CAS #</th>
<th>EINECS # / EC #</th>
<th>Chemical Name</th>
<th>Percentage (wt/wt)</th>
<th>Classifications (EU DSD / EU CLP)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>NA</td>
<td>NA</td>
<td>Proprietary</td>
<td>&lt;0.11</td>
<td>Xi; R36/37/38</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Eye Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Irrit. 2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3</td>
</tr>
<tr>
<td>7732-18-5</td>
<td>200-289-5</td>
<td>water</td>
<td>&gt;99.89</td>
<td>none</td>
</tr>
</tbody>
</table>

See Section 16 for full text of risk phrases and hazard statements.
*CLP = Regulation 1272/2008 – Classification, Labelling, and Packaging
SECTION 4 – FIRST AID MEASURES

4.4 Description of first aid measures:
- **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.

4.5 Most important symptoms and effects, both acute and delayed:
- **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.

4.6 Indication of any immediate medical attention and special treatment needed:
None

SECTION 5 – FIREFIGHTING MEASURES

5.1 Extinguishing media
Use media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture
None

5.3 Advice for firefighters
None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear gloves and chemical eye goggles or glasses with side shields.

6.2 Environmental precautions
Do not discard in drains or sewer systems.

6.3 Methods and material for containment and cleaning up
Use absorbent suitable to the size and location of the spill. Discard absorbent with hazardous waste if applicable with local regulations.

6.4 Reference to other sections
Review Sections 2, 3, and 8

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling
Avoid contact with skin. Wash hands thoroughly after handling. Wear protective gloves and eye protection. Avoid breathing mist, vapours or aerosols. Use only in a well-ventilated area.

7.2 Conditions for safe storage, including
Store at ambient temperatures.
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

any incompatibilities

7.3 Specific end use(s) Not available

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.2 Occupational exposure limits:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Limit value – 8 hours</th>
<th>Limit value – Short term</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ppm</td>
<td>mg/m³</td>
</tr>
<tr>
<td>Glycerol:</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Austria</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Belgium</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Denmark</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>European Union</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>France</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Germany</td>
<td>-</td>
<td>10*</td>
</tr>
<tr>
<td>Hungary</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Italy</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Poland</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Spain</td>
<td>-</td>
<td>10</td>
</tr>
<tr>
<td>Sweden</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>United Kingdom</td>
<td>-</td>
<td>10</td>
</tr>
</tbody>
</table>

* inhalable aerosol

8.1.2 Currently recommended monitoring procedures:
Not determined

8.1.3 Exposure guidelines for air contaminants, if any:
Not determined

8.1.4 DNELs and PNECs for exposure scenarios:
Not determined

8.1.5 Control banding for risk management:
Not determined

8.2 Exposure controls:

Engineering controls: Use in well-ventilated area with mechanical exhaust when operations cause vapour or aerosol formation.

Respiratory protection: No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limits (OEL).

Skin & body protection: Use protective gloves made of: butyl rubber. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Change out of clothes that become wet.

Eye protection: Wear approved chemical safety goggles or safety glasses with side shields where exposure to vapour or aerosol or contact with
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

Eyes is reasonably probable. Provide eye wash station.

Thermal hazards: None
Environmental exposure controls: None

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

- **Appearance:** Clear liquid
- **Odour:** None
- **Odour threshold:** Not applicable
- **pH:** 8.5
- **Melting/freezing point:** Not measured
- **Initial boiling point & boiling range:** Not measured
- **Flash point:** 92.78°C (199°F)
- **Evaporation rate:** Not measured
- **Flammability (solid, gas):** Not applicable
- **Upper/lower flammability or explosive limits:** Not determined
- **Vapour pressure:** Not measured
- **Vapour density:** Not measured
- **Relative density:** Not measured
- **Solubility(ies):** Complete in water
- **Partition coefficient:** Not measured
- **Auto-ignition temperature:** Not applicable
- **Decomposition temperature:** Not applicable
- **Viscosity:** Not determined
- **Explosive properties:** None
- **Oxidising properties:** None
- **Other:** None

9.2 Other information: None

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity: Stable
10.2 Chemicals stability: Stable
10.3 Possibility of hazardous reactions: Will not occur
10.4 Conditions to avoid: Static discharges, hot sources, ignition sources
10.5 Incompatible materials: Avoid accidental contact with strong oxidizers (e.g., nitric acid)
10.6 Hazardous decomposition products: In case of fire, formation of COx

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Mixture:
The acute effects of this product have not been tested. Data on individual components are tabulated below:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD$_{50}$ (rat)</th>
<th>Dermal LD$_{50}$ (rabbit)</th>
<th>Inhalation LC$_{50}$ (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Glycerol</td>
<td>12600 mg/kg</td>
<td>&gt;1000 mg/kg</td>
<td>&gt;570 mg/m$^3$</td>
</tr>
<tr>
<td>Tris(hydroxymethyl)aminomethane</td>
<td>5900 mg/kg</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

Category: Available data
Acute toxicity: May be harmful if swallowed in large quantities. May cause irritation to the respiratory system if liquid is splashed or aerosolized.
Skin/eye irritation: May cause skin irritation. May cause eye irritation. Exposed individuals may experience eye tearing, redness, and discomfort.
Corrosivity: None
Respiratory or skin sensitisation: Not expected
Germ cell mutagenicity: Not expected. Insufficient information for classification.
Carcinogenicity: Not expected. None of the components at reportable levels have been designated as potential carcinogens by IARC (Group 1, 2A or 2B) or other foreign national agencies.
Reproductive toxicity: Not expected if occupational exposure levels are observed.
STOT-SE: May cause respiratory irritation.
STOT-RE: Not expected if occupational exposure levels are observed.
Aspiration hazard: Not expected

ROUTE OF ENTRY: Skin and/or eye contact. Less likely routes are inhalation or ingestion.

SECTION 12 – ECOLOGICAL INFORMATION

12.1 Toxicity: Does not meet criteria for acute ecotoxicity based on available information.
12.3 Persistence and degradability: Not determined. Insufficient information
12.3 Bioaccumulative potential: Not determined. Insufficient information
12.4 Mobility in soil: Not determined. Insufficient information
12.5 Results of PBT and vPvB assessment: Does not contain any ingredients that are assessed as PBT or vPvB.
12.6 Other adverse effects: None known
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods:
Discard contents in compliance with local regulations.

SECTION 14 – TRANSPORT INFORMATION

ARD/RID
Proper Shipping Name
Class
Classification Code
UN Number
Packing Group
Environmental hazard
Not regulated

IMDG
Proper Shipping Name
Class
EmS
UN Number
Packing Group
Flashpoint
Not regulated

ICAO/IATA
Proper Shipping Name
Class
Packing Instruction
UN Number
Packing Group
Not regulated

Special precautions for user: None known

SECTION 15 – REGULATORY INFORMATION

15.1 Safety health and environmental regulations:
Consult the most current list of restrictions for details. The following chemicals are indicated in Annex XII of Regulation 1907/2007.
None

15.2 Chemical Safety Assessment:
Has not been done.

SECTION 16 – OTHER INFORMATION

SDS Status: Version 1.1
Changes: updated format
List of R-phrases in Section 3
R36/37/38 Irritating to eyes, respiratory system and skin.
List of Hazard Statements in Section 3
H315 Causes skin irritation
H319 Causes serious eye irritation
H335 May cause respiratory irritation

Methods used for evaluation: For CLP, other methods as described in each section of Parts 3 and 4 of Annex I

Classification in accordance with Regulation (EU) 1272/2008 in advance of June 1, 2015 required date:
Does not meet criteria for classification.

KEY: DNEL = Derived No-Effect Level; IARC = International Agency for Research of Cancer; WEL = Workplace Exposure Limits; OEL = Occupational Exposure Limits; PBT = Persistent, Bioaccumulative, Toxic; PNEC = Predicted No-Effect Concentration; TWA = Time Weighted Average (8 hours); STEL = Short Term Exposure Limit (15 minutes); ppm = parts per million; vPvB = very Persistent, very Bioaccumulative

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.
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

SECTION 1 – IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product Identifier: Nuclease-Free Water
   Product Code(s): 84007

1.2 General Use: Laboratory use
   Product Description
   For Research Use Only, Not for Use in Diagnostic Procedures

1.3 Manufacturer/Supplier
   QUANTA BIOSCIENCES INC.
   202 PERRY PKWY., SUITE 1
   GAITHERSBURG, MD 20877
   USA
   Phone: +1 (301) 956-1670
   FAX: +1 (301) 956-1681
   Email: technical.support@quantabio.com
   www.quantabio.com

1.4 Emergency Telephone:
   Quanta BioSciences: +1 (301) 947-2913 (09:00 to 17:00 EST)
   Or contact your local distributor for Quanta BioSciences products.

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
   This product has been classified in accordance with Directive 1999/45/EC and does not meet the criteria for classification.

2.2 Label elements
   Labelling in accordance with Directive 1999/45/EC is not required.

2.3 Other hazards
   None known.

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

No hazardous components.

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid* measures:
   EYES: Flush eyes with water as a precaution.
   SKIN: Wash off with soap and plenty of water.
   INGESTION: Never give anything by mouth to an unconscious person. Rinse mouth with water.
   INHALATION: If breathed in, move person into fresh air. If not breathing, give artificial respiration..
   *
   These are basic first aid measures that can used as a precaution if deemed appropriate.

4.2 Most important symptoms and effects, both acute and delayed:
   EYES: None expected
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

SKIN: None expected
INGESTION: None expected
INHALATION: None expected

4.3 Indication of any immediate medical attention and special treatment needed:
None

SECTION 5 – FIREFIGHTING MEASURES

5.1 Extinguishing media
Use media suitable for surrounding fire.

5.2 Special hazards arising from the substance or mixture
None

5.3 Advice for firefighters
None

SECTION 6 – ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures
Wear gloves and chemical safety glasses with side shields.

6.2 Environmental precautions
No special environmental precautions required.

6.3 Methods and material for containment and cleaning up
Use absorbent suitable to the size and location of the spill. Discard absorbent with hazardous waste if applicable with local regulations.

6.4 Reference to other sections
Review Sections 2, 3, and 8

SECTION 7 – HANDLING AND STORAGE

7.1 Precautions for safe handling
No data available.

7.2 Conditions for safe storage, including any incompatibilities
Store at ambient temperatures.

7.3 Specific end use(s)
Not available

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

8.1.3 Occupational exposure limits:

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Limit value – 8 hours (ppm, mg/m³)</th>
<th>Limit value – Short term (ppm, mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.1.2 Currently recommended monitoring procedures:
Not determined

8.1.3 Exposure guidelines for air contaminants, if any:
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

Not determined

8.1.4 DNELs and PNECs for exposure scenarios:
Not determined

8.1.5 Control banding for risk management:
Not determined

8.2 Exposure controls:
Engineering controls: Use in well-ventilated area with mechanical exhaust when operations cause vapour or aerosol formation.
Respiratory protection: No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limits (OEL).
Skin & body protection: Use protective gloves made of: butyl rubber. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Change out of clothes that become wet.
Eye protection: Wear approved chemical safety glasses with side shields where exposure to vapour or aerosol or contact with eyes is reasonably probable. Provide eye wash station.
Thermal hazards: None
Environmental exposure controls: None

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties:

Appearance: Clear liquid
Odour: None
Odour threshold: Not applicable
pH: 6.0 – 8.0 at 25 °C
Melting/freezing point: 0.0 °C
Initial boiling point & boiling range: 100 °C
Flash point: Does not flash
Evaporation rate: Not measured
Flammability (solid, gas): Not applicable
Upper/lower flammability or explosive limits: Not applicable
Vapour pressure: Not measured
Vapour density: Not measured
Relative density: 1.000 g/ml at 3.98 °C
Solubility(ies): Complete in water
Partition coefficient: Not measured
SAFETY DATA SHEET
According to EC Directive 1907/2006/EC

Auto-ignition temperature: Not applicable
Decomposition temperature: Not applicable
Viscosity: Not measured
Explosive properties: No data available
Oxidising properties: No data available
Other: No data available

9.2 Other information:
None

SECTION 10 – STABILITY AND REACTIVITY

10.1 Reactivity: No data available
10.2 Chemicals stability: No data available
10.3 Possibility of hazardous reactions: No data available
10.4 Conditions to avoid: No data available
10.5 Incompatible materials: No data available
10.6 Hazardous decomposition products: No data available

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Mixture:
The acute effects of this product have not been tested. Data on individual components are tabulated below:

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Oral LD$_{50}$ (rat - &gt; 90,000 mg/kg)</th>
<th>Dermal LD$_{50}$</th>
<th>Inhalation LC$_{50}$</th>
</tr>
</thead>
<tbody>
<tr>
<td>Water</td>
<td>Available data</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Category: Available data
Acute toxicity: None expected.
Skin/eye irritation: None expected
Corrosivity: None
Respiratory or skin sensitisation: Not expected
Germ cell mutagenicity: Insufficient information for classification.
Carcinogenicity: None of the components at reportable levels have been designated as potential carcinogens by IARC (Group 1, 2A or 2B) or other foreign national agencies.
Reproductive toxicity: No data available
STOT-SE: No data available
STOT-RE: No data available
Aspiration hazard: No data available
ROUTE OF ENTRY: Skin and/or eye contact. Less likely routes are inhalation or ingestion.

**SECTION 12 – ECOLOGICAL INFORMATION**

12.1 Toxicity: Does not meet criteria for acute ecotoxicity based on available information.
12.4 Persistence and degradability: Not applicable
12.3 Bioaccumulative potential: No data available
12.4 Mobility in soil: No data available
12.5 Results of PBT and vPvB assessment: Does not contain any ingredients that are assessed as PBT or vPvB.
12.6 Other adverse effects: None known

**SECTION 13 – DISPOSAL CONSIDERATIONS**

13.1 Waste treatment methods: Discard contents in compliance with local regulations.

**SECTION 14 – TRANSPORT INFORMATION**

<table>
<thead>
<tr>
<th>ARD/RID</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>Classification Code</td>
<td></td>
</tr>
<tr>
<td>UN Number</td>
<td></td>
</tr>
<tr>
<td>Packing Group</td>
<td></td>
</tr>
<tr>
<td>Environmental hazard</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>IMDG</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>EmS</td>
<td></td>
</tr>
<tr>
<td>UN Number</td>
<td></td>
</tr>
<tr>
<td>Packing Group</td>
<td></td>
</tr>
<tr>
<td>Flashpoint</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>ICAO/IATA</th>
<th>Not regulated</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper Shipping Name</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td></td>
</tr>
<tr>
<td>Packing Instruction</td>
<td></td>
</tr>
<tr>
<td>UN Number</td>
<td></td>
</tr>
<tr>
<td>Packing Group</td>
<td></td>
</tr>
</tbody>
</table>

Special precautions for user: None known
SECTION 15 – REGULATORY INFORMATION

15.1 Safety health and environmental regulations:

Consult the most current list of restrictions for details. The following chemicals are indicated in Annex XII of Regulation 1907/2007.

None

15.2 Chemical Safety Assessment:

No data available

SECTION 16 – OTHER INFORMATION

SDS Status: Version 1.1
Changes: updated format

Replaces version: Rev. 28-JUN-2007

List of R-phrases in Section 3
None

List of Hazard Statements in Section 3
None

Methods used for evaluation: For CLP, other methods as described in each section of Parts 3 and 4 of Annex I

Classification in accordance with Regulation (EU) 1272/2008 in advance of June 1, 2015 required date:
Does not meet criteria for classification.

KEY: DNEL = Derived No-Effect Level; IARC = International Agency for Research of Cancer; WEL = Workplace Exposure Limits; OEL = Occupational Exposure Limits; PBT = Persistent, Bioaccumulative, Toxic; PNEC = Predicted No-Effect Concentration; TWA = Time Weighted Average (8 hours); STEL = Short Term Exposure Limit (15 minutes); ppm = parts per million; vPvB = very Persistent, very Bioaccumulative

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.