

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

1 Identification

- **Product Identifier**
- **Trade Name: Glucose Oxidase (Gox)**
- **Product Number:** 806-00053-00
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Kit Component
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Quantum-Si, Inc.
530 Old Whitfield St.
Guilford, CT 06437
860-577-0668
www.quantum-si.com/
- **Emergency telephone number:**
Chemtrec (US and Canada): (800) 424-9300
Chemtrec (Outside US): +1 (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
1 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

(Contd. on page 2)

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Dangerous Components:

1132-61-2	4-morpholinopropanesulphonic acid	≤2.5%
	⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	

Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

Description of first aid measures

- **General information:** If symptoms persist, call a physician.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
Generally, the product does not irritate the skin.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
If eye irritation occurs, consult a doctor.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

(Contd. on page 3)

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· PAC-1:		
127-08-2	Potassium Acetate	9.8 mg/m ³
· PAC-2:		
127-08-2	Potassium Acetate	110 mg/m ³
· PAC-3:		
127-08-2	Potassium Acetate	640 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves recommended in manufacturing.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Goggles recommended during refilling.

- **Limitation and supervision of exposure into the environment:** None

(Contd. on page 4)

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Trade Name: **Glucose Oxidase (Gox)**

9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid

Color: Yellow

· **Odor:** Odorless

· **Odor threshold:** Not determined.

· **pH-value:** Not determined.

· **Change in condition**

Melting point/Melting range: Not determined.

Boiling point/Boiling range: ≥100 °C (≥212 °F)

· **Flash point:** None

· **Flammability (solid, gaseous):** Not applicable.

· **Auto igniting:** Not applicable

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower: Not determined.

Upper: Not determined.

· **Vapor pressure @ 20 °C (68 °F):** ≤23 hPa (≤17.3 mm Hg)

· **Density:** Not determined.

· **Relative density:** Not determined.

· **Vapor density:** Not determined.

· **Evaporation rate:** Not determined.

· **Solubility in / Miscibility with:**

Water: Fully miscible.

· **Partition coefficient (n-octanol/water):** Not determined.

· **Viscosity:**

Dynamic: Not determined.

Kinematic: Not determined.

· **Solvent content:**

VOC content: 0.00 %
0.0 g/l / 0.00 lb/gal

· **Other information:** No further relevant information available.

(Contd. on page 5)

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10 Stability and Reactivity

- **Reactivity:** Reacts with oxygen in the presence of glucose.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** No data available.
- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**
- **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

(Contd. on page 6)

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13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

(Contd. on page 7)

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· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
· New Jersey Right-to-Know List:
None of the ingredients are listed.
· New Jersey Special Hazardous Substance List:
None of the ingredients are listed.
· Pennsylvania Right-to-Know List:
None of the ingredients are listed.
· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
· GHS label elements Non-Regulated Material
· Hazard pictograms: Non-Regulated Material
· Signal word: Non-Regulated Material
· Hazard statements: Non-Regulated Material
· National regulations:
The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association

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EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety and Health
OSHA: Occupational Safety & Health Administration
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Skin Irritation 2: Skin corrosion/irritation – Category 2
Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

SAFETY DATA SHEET

This document is in compliance with requirements for Safety Data Sheets implemented under U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2024 and equivalent State Standards), guidelines from the United Nations Globally Harmonized System of Classification of Chemicals (GHS), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Hazardous Products Regulations (HPR), and the European Union regulation on the Classification, Labelling and Packaging of Substances and Mixtures (EC No. 1272/2008, EU 2020/878, EU 2024/2865). See section 16 for more information on national regulations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFICATION

- **PRODUCT NAME: CONTROL PEPTIDE MIXTURE 4**
- **PRODUCT CODE: 806-00089-00**

1.2 PRODUCT USE AND RESTRICTIONS

- **IDENTIFIED USE:** Kit component for protein sequencing process.
- **USES ADVISED AGAINST:** Procedures not related to the intended use of this product.
- **IDENTIFIED USERS:** For sale to, use, and storage by personnel trained in handling product safely.

1.3 MANUFACTURER INFORMATION

- **MANUFACTURER/SUPPLIER: Quantum SI, Inc.**
- **ADDRESS:** 29 Business Park Dr., Suite C; Branford, CT; 06405
- **BUSINESS PHONE:** 866-688-7374 (8:00 am to 5:00 pm, Eastern Standard Time)
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300
Outside US): +1-703- 527-3887
- **Email:** support@quantum-si.com

1.4 CANADIAN DISTRIBUTOR INFORMATION

- **DISTRIBUTOR:** **VWR International Co.**
- **ADDRESS:** 6040 Cantay Road; Mississauga, Ontario; Canada L5R 4J2
- **BUSINESS PHONE:** 1-800-932-5000
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300

SECTION 2: HAZARD IDENTIFICATION

2.1 HAZARD CLASSIFICATION (US OSHA, CANADIAN WHMIS, and EU CLP)

- Not classified as hazardous under pertinent national standards.

2.2 LABEL ELEMENTS (US OSHA, CANADIAN WHMIS, and EU CLP)

- **Hazard Pictograms:** Not applicable.
- **Signal Word:** Not applicable.
- **Hazard Statements:** Not applicable.
- **Precautionary Statements:** Not applicable.

2.3 OTHER PERTINENT DATA ON HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS

- **Contains no material classified as follows:** Endocrine disrupting properties: In relation to human health and in relation to the environment (ED). Persistent, Bioaccumulative and Toxic (PBT); Very persistent and very bioaccumulative (vPvB); Persistent, mobile, and toxic (PMT)' Very persistent and very mobile (vPvM).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 IDENTIFICATION OF HAZARDOUS SUBSTANCES IN PRODUCT

NAME	CAS NUMBER	GHS CLASSIFICATION COMPONENT	HAZARD FOR	% (w/w)

The components of this product are not hazardous or are below cut-off concentrations (and do not contribute physical or health hazards at the concentrations present in solution).

100%

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- BASIC FIRST AID BY EXPOSURE ROUTE:**

<u>AREA EXPOSED</u>	<u>TREATMENT</u>
Eye Contact:	Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention should any irritation develop.
Skin Contact:	Flush area with warm, running water for several minutes. Seek medical attention should any irritation develop.
Inhalation:	Obtain fresh air. Seek medical attention if irritation develops after exposure ends.
Ingestion:	If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- ACUTE HEALTH EFFECTS:**

<u>AREA EXPOSED</u>	<u>EFFECTS</u>
Eye Contact:	May cause eye irritation upon prolonged exposure.
Skin Contact:	May cause skin irritation upon prolonged exposure.
Inhalation:	Not anticipated to be a potential route of exposure.
Ingestion:	Not anticipated to be a potential route of exposure.

- CHRONIC HEALTH EFFECTS:** None known.

- TARGET ORGANS:** None known.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.
- RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.
- MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None known.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Dry Powder, Foam, Carbon Dioxide, or any other type.
- UNSUITABLE FIRE EXTINGUISHING MEDIA:** None.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- NFPA FLAMMABILITY CLASSIFICATION:**

NFPA Rating:



NFPA Hazard Classification: Not classified.

5.3 UNUSUAL HAZARDS IN FIRE SITUATIONS

<u>POTENTIAL HAZARD</u>	<u>DESCRIPTION FOR PRODUCT</u>
Decomposition:	Generates irritating vapors, carbon monoxide, carbon dioxide.
Incompatibilities:	See Section 10 (Reactivity and Stability).
Explosion Sensitivity to Mechanical Impact:	Not applicable.

Explosion Sensitivity to Static Not applicable.
Discharge:

SECTION 5: FIREFIGHTING MEASURES

5.4 ADVICE FOR FIREFIGHTERS

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases. Gloves and safety glasses must be worn when cleaning up spills. Use caution during clean-up; contaminated floors and items may be slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Use damp sponge or polypad to carefully cleanse contaminated area or items. If appropriate, further clean contaminated area and equipment with soap and water solution, followed by a water rinse.

6.2 ENVIRONMENTAL PRECAUTIONS

- **IN CASE OF SPILL:** Collect spillage promptly. Avoid response actions that can cause a release of a significant amount of substance into the environment. Avoid accidental dispersal of spilled material into soil, waterways, and sewers.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

- **SPILL RESPONSE EQUIPMENT:** Polypad or sponge. Appropriate waste container.

6.4 REFERENCE TO OTHER SECTIONS

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- **HYGIENE PRACTICES:** Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of mists, sprays, or aerosols. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.
- **HANDLING PRACTICES:** Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

7.2 CONDITIONS FOR SAFE STORAGE

- **STORAGE PRACTICES:** Ensure all containers are correctly labeled. Store containers away from direct sunlight, and sources of intense heat. Store this product away from incompatible chemicals. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Empty containers may contain residual material; therefore, empty containers should be handled with care.
- **INCOMPATIBILITIES:** See Section 10 (Stability and Reactivity).

7.3 SPECIFIC END USES

- This product is for use in protein sequencing processes by trained laboratory personnel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

- **AIRBORNE EXPOSURE LIMITS:** No airborne occupational exposure limits have been established.

- **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** None established.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

- **DERIVED NO EFFECTS LEVEL:** Not established.
- **PREDICTED NO EFFECT CONCENTRATION:** Not established.

8.2 EXPOSURE CONTROLS

- **GENERAL GUIDELINES:** This product is intended for use by trained personnel as part of a kit.
- **ENGINEERING CONTROLS:** Ensure the area has adequate ventilation to ensure minimal inhalation of mists or sprays occurs. Eye wash stations and safety showers should be readily available.
- **RESPIRATORY PROTECTION:** None needed under normal circumstances of use.
- **HAND PROTECTION:** None typically needed for anticipated use. Neoprene or nitrile gloves are recommended if skin contact can occur (e.g., spill clean-up). Ensure gloves are intact prior to use.
- **EYE PROTECTION:** Safety glasses are recommended if splash or spray can occur during use (e.g., during refilling of unit).
- **BODY PROTECTION:** Body protection suitable to task is recommended (e.g., laboratory coat).
- **OTHER PROTECTIVE MEASURES:** Wash hands during breaks and at the end of handling the material. Immediately remove any contaminated clothing.

8.3 ENVIRONMENTAL EXPOSURE CONTROLS

- Minimize the generation of mists, sprays, or aerosols while using this product. Avoid release into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE AND DISTINGUISHING CHARACTERISTICS:**

<u>PROPERTY</u>	<u>DATA</u>
State:	Liquid
Color:	Colorless
Odor:	Odorless
Odor Threshold:	Not determined
pH:	7.5.

- **PHYSICAL DATA:**

<u>PROPERTY</u>	<u>DATA</u>
Melting Point/Freezing Point:	Not determined.
Initial Boiling Point/Boiling Range:	Not determined.
Flash Point:	≥100 °C (≥212 °F)
Evaporation Rate (Water = 1):	Approximately 1.0
Flammability:	Not applicable.
Upper/Lower Explosion Limits	Not applicable.
Vapor Pressure:	@ 20C (68F) ≤23 hPa (≤17.3 mm Hg).
Vapor Density	Not determined.
Relative Density at 20 °C (68 °F)	1 g/cm ³ (8.345 lb./gal)
Solubility:	Totally soluble in water
Partition Coefficient/n-octanol/water:	Not determined
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not determined.
Kinematic Viscosity:	Not determined.
Particle Characteristics:	Not applicable.

9.2 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

- **Information regarding Physical Hazard Classes** This product is not classified under any physical hazard class.
- **Other Safety Characteristics** Not applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Continued)

9.3 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

Solvent Content:

- o Water: 97.6%
- o Volatile Organic Compound (VOC) Content: 0.0%

Solid Content: 1.0%:

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY AND CHEMICAL STABILITY

- The product is not reactive under typical conditions of use or handling.
- Normally stable under standard temperatures and pressures.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS (INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCY)

- Product is not self-reactive, water-reactive, or air-reactive; it will not undergo hazardous polymerization.

10.3 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals and adverse storage conditions.

10.4 INCOMPATIBLE MATERIALS

- Strong oxidizing agents.

10.5 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition include carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON ACUTE TOXICITY

- **PRODUCT TOXICOLOGY DATA:** The following are calculated estimates for the product:
 - o Acute Toxicity Estimate (Oral) > 5000 mg//kg
 - o Acute Toxicity Estimate (Dermal) > 5000 mg//kg
 - o Acute Toxicity Estimate (Inhalation) > 5 mg/L (dusts and mists)
- **DEGREE OF IRRITATION:** This product is not anticipated to cause skin or eye irritation.
- **SENSITIZATION:** This product does not contain any compound reported to as a skin or respiratory sensitizer.
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazard Information) and Section 4 (First-Aid Measures) for additional details.
 - o **Eyes:** May cause eye irritation upon prolonged exposure.
 - o **Skin:** May cause skin irritation upon prolonged exposure.
 - o **Inhalation** Not anticipated to be a significant route of occupational exposure.
 - o **Ingestion:** Not anticipated to be a significant route of occupational exposure.

11.2 INFORMATION ON CHRONIC TOXICITY

- **CARCINOGENICITY STATUS:** This product is not listed as a carcinogen by NTP, IARC, or OSHA.
- **REPRODUCTIVE TOXICITY INFORMATION:** Not applicable.
- **MUTAGENIC EFFECTS** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

11.3 OTHER USEFUL TOXICOLOGY INFORMATION

- **ENDOCRINE-DISRUPTING PROPERTIES:** Not applicable.
- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL TOXICITY

- This product is not anticipated to be harmful to the environment.

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

- Based on its total solubility in water, this product is expected to have significant mobility in soil.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

- Not classified as PBT or vPvB.

12.6 ENDOCRINE DISRUPTING PROPERTIES

- None reported.

12.7 OTHER ADVERSE ENVIRONMENTAL EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- Dispose of in accordance with local, state, and national regulations.

13.2 DISPOSAL CONSIDERATIONS

- EPA RCRA WASTE CODE:** Not applicable to wastes consisting only of this product.
- SEWAGE DISPOSAL:** Waste should not be disposed of by release to sewers.

13.3 DISPOSITION OF EMPTY CONTAINERS

- Empty containers may contain residual material; therefore, empty containers should be handled with care.
- Empty containers should be discarded properly.

SECTION 14: TRANSPORT INFORMATION

14.1 HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS

- DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:**

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION						

- CANADIAN TRANSPORTATION INFORMATION:** This product is not regulated by Transport Canada as a dangerous good.
- EUROPEAN TRANSPORT CLASSIFICATION BY ROAD (ADR)/RAIL (RID):** Product is not regulated as a dangerous good.
- IATA DESIGNATION:** Product is not regulated as a dangerous good by the International Air Transport Association.
- IMO DESIGNATION:** Product is not regulated as a dangerous good by the International Maritime Organization.

SECTION 14: TRANSPORT INFORMATION (Continued)

14.2 ENVIRONMENTAL HAZARDS

- None known.

14.3 SPECIAL PRECAUTIONS FOR TRANSPORTERS

- None established.

14.4 TRANSPORT IN BULK

- **ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:** Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 OTHER IMPORTANT U.S. SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **US TOXICITY SUBSTANCES CONTROL INVENTORY:** The components of this product are listed.
- **U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.
- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** Not applicable.
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable to the product, based on composition and volume.
- **U.S. SARA TITLE 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
- **US CLEAN AIR ACT (SECTION 112r):** Not applicable.

15.2 OTHER IMPORTANT U.S. STATE REGULATIONS FOR COMPONENTS

- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.
- **NEW JERSEY RIGHT TO KNOW LIST HAZARDOUS SUBSTANCES LIST:** No product ingredient is listed.
- **NEW JERSEY ENVIRONMENTAL SUBSTANCES LIST:** No product ingredient is listed.
- **PENNSYLVANIA RIGHT-TO-KNOW LIST:** No product ingredient is listed.

15.3 CANADIAN AND EU SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **ADDITIONAL WHMIS INFORMATION:** This SDS contains all the required elements under the Canadian Hazardous Products Regulations (SOR 2022-272).
- **CANADIAN DSL/NDL INVENTORY STATUS:** All components of this product are listed or exempted.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priority Substances Lists.
- **E.U. REACH:** Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances. REACH (1907/2006). Contains no substance with REACH Restrictions.

15.4 CHEMICAL SAFETY ASSESSMENT

- **ASSESSMENT INFORMATION:** No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF PREPARATION:** August 18, 2025
- **SUPERCEDES:** Not applicable.
- **CHANGE INDICATED:** New product.

16.2 HAZARDOUS MATERIALS SYSTEM RATING

Health	0	
Flammability	0	<i>(Personal Protective Equipment Rating: Occupational Use situations: Refer to section 8 for guidance on the selection of personal production.</i>
Physical Hazard	0	
Protective Equipment	*	

SECTION 16: OTHER INFORMATION (Continued)

16.3 DEFINITIONS

SECTION	EXPLANATION OF TERMS/ABBREVIATIONS
ALL	<u>OSHA</u> : U.S. Federal Occupational Safety and Health Administration. <u>WHMIS</u> : Canadian Workplace Hazardous Materials Standard. <u>GHS</u> : Globally Harmonized System of Classification of Chemical Substances. <u>HCS</u> : Hazard Communication Standard (U.S.). <u>HPR</u> : Hazardous Products Regulations (Canada). <u>EU</u> : European Union. <u>CLP</u> : Union Classification, Labelling and Packaging of Substances and Mixtures
3	<u>CAS Number</u> : Chemical Abstract Service Number, used by the American Chemical Society to uniquely identify a chemical.
5	<u>NFPA</u> : National Fire Protection Association. <u>NFPA FLAMMABILITY CLASSIFICATION</u> : The NFPA uses the flash point (Fl.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: Fl.P. below 73°F and BP below 100°F. Class IB: Fl.P. below 73°F and BP at or above 100°F. Class IC: Fl.P. at or above 73°F and BP at or above 100°F. Class II: Fl.P. at or above 100°F and below 140°F. Class IIIA: Fl.P. at or above 140°F and below 200°F. Class IIIB: Fl.P. at or above 200°F. <u>NFPA HAZARDOUS MATERIALS RATING</u> : This is a rating system used to summarize physical and health hazards to firefighters Blue = Health hazard; Red = Fire Hazard; Yellow = Reactivity Hazard. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
8	<u>ACGIH</u> : American Conference of Government Industrial Hygienists; <u>TWA</u> : Time-Weighted Average (over an 8-hour workday); <u>STEL</u> : Short-Term Exposure Limit (15-minute average, no more than 4 times daily and each exposure separated by one hour minimally); <u>C</u> : Ceiling Limit (concentration not to be exceeded in a work environment). <u>PEL</u> : Permissible Exposure Limit. <u>NIOSH</u> : National Institute of Occupational Safety and Health; <u>REL</u> : Recommended Exposure Limit; <u>IDLH</u> : Immediately Dangerous to Life and Health <u>ppm</u> : Parts per Million. <u>mg/m³</u> : Milligrams per cubic meter. <u>BEI</u> : Biological Exposure Limit. <u>MAK</u> : Maximum Concentration Values in the Workplace; <u>AIHA WEEL</u> : AIHA WEEL - American Industrial Hygiene Association Workplace Environment Exposure Levels; <u>OEL</u> : Occupational Exposure Limit.
9	<u>pH</u> : Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, a pH value of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. <u>FLASH POINT</u> : Temperature at which a liquid generates enough flammable vapors so that ignition may occur. <u>AUTOIGNITION TEMPERATURE</u> : Temperature at which spontaneous ignition occurs. <u>LOWER EXPLOSIVE LIMIT (LEL)</u> : The minimal concentration of flammable vapors in air which will sustain ignition. <u>UPPER EXPLOSIVE LIMIT (UEL)</u> : The maximum concentration of flammable vapors in air which will sustain ignition.
11	<u>CARCINOGENICITY STATUS</u> : <u>NTP</u> : National Toxicology Program. <u>IARC</u> : International Agency for Research on Cancer. <u>TOXICOLOGY DATA</u> : <u>LD_{xx}</u> or <u>LC_{xx}</u> : The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. <u>TD_{xx}</u> or <u>TC_{xx}</u> : The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
12	<u>EC50</u> : Effect Concentration. <u>PBT</u> or <u>vPvB</u> : Persistent/ Bioaccumulative /Toxic; Very Persistent/ Very Bioaccumulative
13	<u>RCRA</u> : Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. <u>EPA RCRA Waste Codes</u> : Defined in 40 CFR Section 261.
15	<u>CERCLA</u> : Comprehensive Environmental Response, Compensation, and Liability Act. <u>SARA</u> : Superfund Amendments and Reauthorization Act. <u>TSCA</u> : Toxic Substances Control Act. <u>DSL/NDL</u> : Domestic Substances List/Non-Domestic Substances List. <u>REACH</u> : European Union regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals.
16	<u>HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING</u> : This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SAFETY DATA SHEET

This document is in compliance with requirements for Safety Data Sheets implemented under U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2024 and equivalent State Standards), guidelines from the United Nations Globally Harmonized System of Classification of Chemicals (GHS), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Hazardous Products Regulations (HPR), and the European Union regulation on the Classification, Labelling and Packaging of Substances and Mixtures (EC No. 1272/2008, EU 2020/878, EU 2024/2865). See section 16 for more information on national regulations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFICATION

- **PRODUCT NAME: RECOGNIZER 4 MIX (Binders)**
- **PRODUCT CODE: 806-00087-00**

1.2 PRODUCT USE AND RESTRICTIONS

- **IDENTIFIED USE:** Kit component for protein sequencing process.
- **USES ADVISED AGAINST:** Procedures not related to the intended use of this product.
- **IDENTIFIED USERS:** For sale to, use, and storage by personnel trained in handling product safely.

1.3 MANUFACTURER INFORMATION

- **MANUFACTURER/SUPPLIER: Quantum SI, Inc.**
- **ADDRESS:** 29 Business Park Dr., Suite C; Branford, CT; 06405
- **BUSINESS PHONE:** 866-688-7374 (8:00 am to 5:00 pm, Eastern Standard Time)
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300
Outside US): +1-703- 527-3887
- **Email:** support@quantum-si.com

1.4 CANADIAN DISTRIBUTOR INFORMATION

- **DISTRIBUTOR: VWR International Co.**
- **ADDRESS:** 6040 Cantay Road; Mississauga, Ontario; Canada L5R 4J2
- **BUSINESS PHONE:** 1-800-932-5000
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300

SECTION 2: HAZARD IDENTIFICATION

2.1 HAZARD CLASSIFICATION (US OSHA, CANADIAN WHMIS, and EU CLP)

- Not classified as hazardous under pertinent national standards.

2.2 LABEL ELEMENTS (US OSHA, CANADIAN WHMIS, and EU CLP)

- **Hazard Pictograms:** Not applicable.
- **Signal Word:** Not applicable.
- **Hazard Statements:** Not applicable.
- **Precautionary Statements:** Not applicable.

2.3 OTHER PERTINENT DATA ON HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS

- **Contains no material classified as follows:** Endocrine disrupting properties: In relation to human health and in relation to the environment (ED). Persistent, Bioaccumulative and Toxic (PBT); Very persistent and very bioaccumulative (vPvB); Persistent, mobile and toxic (PMT)' Very persistent and very mobile (vPvM).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 IDENTIFICATION OF HAZARDOUS SUBSTANCES IN PRODUCT

NAME	CAS NUMBER	GHS CLASSIFICATION COMPONENT	HAZARD FOR	% (w/w)

The components of this product are not hazardous or are below cut-off concentrations (and do not contribute physical or health hazards at the concentrations present in solution).

100%

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- BASIC FIRST AID BY EXPOSURE ROUTE:**

<u>AREA EXPOSED</u>	<u>TREATMENT</u>
Eye Contact:	Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention should any irritation develop.
Skin Contact:	Flush area with warm, running water for several minutes. Seek medical attention should any irritation develop.
Inhalation:	Obtain fresh air. Seek medical attention if irritation develops after exposure ends.
Ingestion:	If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- ACUTE HEALTH EFFECTS:**

<u>AREA EXPOSED</u>	<u>EFFECTS</u>
Eye Contact:	May cause eye irritation upon prolonged exposure.
Skin Contact:	May cause skin irritation upon prolonged exposure.
Inhalation:	Not anticipated to be a potential route of exposure.
Ingestion:	Not anticipated to be a potential route of exposure.

- CHRONIC HEALTH EFFECTS:** None known.

- TARGET ORGANS:** None known.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.

- RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.

- MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None known.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Dry Powder, Foam, Carbon Dioxide, or any other type.

- UNSUITABLE FIRE EXTINGUISHING MEDIA:** None.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- NFPA FLAMMABILITY CLASSIFICATION:**

NFPA Rating:



NFPA Hazard Classification: Not classified.

5.3 UNUSUAL HAZARDS IN FIRE SITUATIONS

<u>POTENTIAL HAZARD</u>	<u>DESCRIPTION FOR PRODUCT</u>
Decomposition:	Generates irritating vapors, carbon monoxide, carbon dioxide.
Incompatibilities:	See Section 10 (Reactivity and Stability).
Explosion Sensitivity to Mechanical Impact:	Not applicable.

Explosion Sensitivity to Static Not applicable.
Discharge:

SECTION 5: FIREFIGHTING MEASURES

5.4 **ADVICE FOR FIREFIGHTERS**

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES**

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases. Gloves and safety glasses must be worn when cleaning up spills. Use caution during clean-up; contaminated floors and items may be slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Use damp sponge or polypad to carefully cleanse contaminated area or items. If appropriate, further clean contaminated area and equipment with soap and water solution, followed by a water rinse.

6.2 **ENVIRONMENTAL PRECAUTIONS**

- **IN CASE OF SPILL:** Collect spillage promptly. Avoid response actions that can cause a release of a significant amount of substance into the environment. Avoid accidental dispersal of spilled material into soil, waterways, and sewers.

6.3 **METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP**

- **SPILL RESPONSE EQUIPMENT:** Polypad or sponge. Appropriate waste container.

6.4 **REFERENCE TO OTHER SECTIONS**

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 **PRECAUTIONS FOR SAFE HANDLING**

- **HYGIENE PRACTICES:** Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of mists, sprays, or aerosols. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.
- **HANDLING PRACTICES:** Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

7.2 **CONDITIONS FOR SAFE STORAGE**

- **STORAGE PRACTICES:** Ensure all containers are correctly labeled. Store containers away from direct sunlight, and sources of intense heat. Store this product away from incompatible chemicals. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Empty containers may contain residual material; therefore, empty containers should be handled with care.
- **INCOMPATIBILITIES:** See Section 10 (Stability and Reactivity).

7.3 **SPECIFIC END USES**

- This product is for use in protein sequencing processes by trained laboratory personnel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **CONTROL PARAMETERS**

- **AIRBORNE EXPOSURE LIMITS:** No airborne occupational exposure limits have been established.

- **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** None established.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

- **DERIVED NO EFFECTS LEVEL:** Not established.
- **PREDICTED NO EFFECT CONCENTRATION:** Not established.

8.2 EXPOSURE CONTROLS

- **GENERAL GUIDELINES:** This product is intended for use by trained personnel as part of a kit.
- **ENGINEERING CONTROLS:** Ensure the area has adequate ventilation to ensure minimal inhalation of mists or sprays occurs. Eye wash stations and safety showers should be readily available.
- **RESPIRATORY PROTECTION:** None needed under normal circumstances of use.
- **HAND PROTECTION:** None typically needed for anticipated use. Neoprene or nitrile gloves are recommended if skin contact can occur (e.g., spill clean-up). Ensure gloves are intact prior to use.
- **EYE PROTECTION:** Safety glasses are recommended if splash or spray can occur during use (e.g., during refilling of unit).
- **BODY PROTECTION:** Body protection suitable to task is recommended (e.g., laboratory coat).
- **OTHER PROTECTIVE MEASURES:** Wash hands during breaks and at the end of handling the material. Immediately remove any contaminated clothing.

8.3 ENVIRONMENTAL EXPOSURE CONTROLS

- Minimize the generation of mists, sprays, or aerosols while using this product. Avoid release into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE AND DISTINGUISHING CHARACTERISTICS:**

<u>PROPERTY</u>	<u>DATA</u>
State:	Liquid
Color:	Pink
Odor:	Odorless
Odor Threshold:	Not determined
pH:	Not determined

- **PHYSICAL DATA:**

<u>PROPERTY</u>	<u>DATA</u>
Melting Point/Freezing Point:	Not determined.
Initial Boiling Point/Boiling Range:	Not determined.
Flash Point:	Not determined
Evaporation Rate (Water = 1):	Approximately 1.0
Flammability:	Not applicable.
Upper/Lower Explosion Limits	Not applicable.
Vapor Pressure:	Not determined
Vapor Density	Not determined.
Relative Density at 20 °C (68 °F)	Not determined
Solubility:	Totally soluble in water
Partition Coefficient/n-octanol/water:	Not determined
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not determined.
Kinematic Viscosity:	Not determined.
Particle Characteristics:	Not applicable.

9.2 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

- **Information regarding Physical Hazard Classes** This product is not classified under any physical hazard class.
- **Other Safety Characteristics** Not applicable

9.3 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

Solvent Content:

- o Water: 97.6%
 - o Volatile Organic Compound (VOC) Content: 0.0%
- Solid Content:** 1.0%:

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY AND CHEMICAL STABILITY

- The product is not reactive under typical conditions of use or handling.
- Normally stable under standard temperatures and pressures.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS (INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCY)

- Product is not self-reactive, water-reactive, or air-reactive; it will not undergo hazardous polymerization.

10.3 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals and adverse storage conditions.

10.4 INCOMPATIBLE MATERIALS

- Strong oxidizing agents.

10.5 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition include carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON ACUTE TOXICITY

- **PRODUCT TOXICOLOGY DATA:** The following are calculated estimates for the product:
 - o Acute Toxicity Estimate (Oral) > 5000 mg/kg
 - o Acute Toxicity Estimate (Dermal) > 5000 mg/kg
 - o Acute Toxicity Estimate (Inhalation) > 5 mg/L (dusts and mists)
- **DEGREE OF IRRITATION:** This product is not anticipated to cause skin or eye irritation.
- **SENSITIZATION:** This product does not contain any compound reported to as a skin or respiratory sensitizer.
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazard Information) and Section 4 (First-Aid Measures) for additional details.
 - o **Eyes:** May cause eye irritation upon prolonged exposure.
 - o **Skin:** May cause skin irritation upon prolonged exposure.
 - o **Inhalation** Not anticipated to be a significant route of occupational exposure.
 - o **Ingestion:** Not anticipated to be a significant route of occupational exposure.

11.2 INFORMATION ON CHRONIC TOXICITY

- **CARCINOGENICITY STATUS:** This product is not listed as a carcinogen by NTP, IARC, or OSHA.
- **REPRODUCTIVE TOXICITY INFORMATION:** Not applicable.
- **MUTAGENIC EFFECTS** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

11.3 OTHER USEFUL TOXICOLOGY INFORMATION

- **ENDOCRINE-DISRUPTING PROPERTIES:** Not applicable.
- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL TOXICITY

- This product is not anticipated to be harmful to the environment.

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

- Based on its total solubility in water, this product is expected to have significant mobility in soil.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

- Not classified as PBT or vPvB.

12.6 ENDOCRINE DISRUPTING PROPERTIES

- None reported.

12.7 OTHER ADVERSE ENVIRONMENTAL EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- Dispose of in accordance with local, state, and national regulations.

13.2 DISPOSAL CONSIDERATIONS

- EPA RCRA WASTE CODE:** Not applicable to wastes consisting only of this product.
- SEWAGE DISPOSAL:** Waste should not be disposed of by release to sewers.

13.3 DISPOSITION OF EMPTY CONTAINERS

- Empty containers may contain residual material; therefore, empty containers should be handled with care.
- Empty containers should be discarded properly.

SECTION 14: TRANSPORT INFORMATION

14.1 HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS

- DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:**

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION						

- CANADIAN TRANSPORTATION INFORMATION:** This product is not regulated by Transport Canada as a dangerous good.
- EUROPEAN TRANSPORT CLASSIFICATION BY ROAD (ADR)/RAIL (RID):** Product is not regulated as a dangerous good.
- IATA DESIGNATION:** Product is not regulated as a dangerous good by the International Air Transport Association.
- IMO DESIGNATION:** Product is not regulated as a dangerous good by the International Maritime Organization.

SECTION 14: TRANSPORT INFORMATION (Continued)

14.2 ENVIRONMENTAL HAZARDS

- None known.

14.3 SPECIAL PRECAUTIONS FOR TRANSPORTERS

- None established.

14.4 TRANSPORT IN BULK

- **ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:** Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 OTHER IMPORTANT U.S. SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **US TOXICITY SUBSTANCES CONTROL INVENTORY:** The components of this product are listed.
- **U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.
- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** Not applicable.
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable to the product, based on composition and volume.
- **U.S. SARA TITLE 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
- **US CLEAN AIR ACT (SECTION 112r):** Not applicable.

15.2 OTHER IMPORTANT U.S. STATE REGULATIONS FOR COMPONENTS

- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.
- **NEW JERSEY RIGHT TO KNOW LIST HAZARDOUS SUBSTANCES LIST:** No product ingredient is listed.
- **NEW JERSEY ENVIRONMENTAL SUBSTANCES LIST:** No product ingredient is listed.
- **PENNSYLVANIA RIGHT-TO-KNOW LIST:** No product ingredient is listed.

15.3 CANADIAN AND EU SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **ADDITIONAL WHMIS INFORMATION:** This SDS contains all the required elements under the Canadian Hazardous Products Regulations (SOR 2022-272).
- **CANADIAN DSL/NDL INVENTORY STATUS:** All components of this product are listed or exempted.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priority Substances Lists.
- **E.U. REACH:** Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances. REACH (1907/2006). Contains no substance with REACH Restrictions.

15.4 CHEMICAL SAFETY ASSESSMENT

- **ASSESSMENT INFORMATION:** No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF PREPARATION:** August 18, 2025
- **SUPERCEDES:** Not applicable.
- **CHANGE INDICATED:** New product.

16.2 HAZARDOUS MATERIALS SYSTEM RATING

Health	0	<i>(Personal Protective Equipment Rating: Occupational Use situations: Refer to section 8 for guidance on the selection of personal production.</i>
Flammability	0	
Physical Hazard	0	
Protective Equipment	*	

SECTION 16: OTHER INFORMATION (Continued)

16.3 DEFINITIONS

SECTION	EXPLANATION OF TERMS/ABBREVIATIONS
ALL	<u>OSHA</u> : U.S. Federal Occupational Safety and Health Administration. <u>WHMIS</u> : Canadian Workplace Hazardous Materials Standard. <u>GHS</u> : Globally Harmonized System of Classification of Chemical Substances. <u>HCS</u> : Hazard Communication Standard (U.S.). <u>HPR</u> : Hazardous Products Regulations (Canada). <u>EU</u> : European Union. <u>CLP</u> : Union Classification, Labelling and Packaging of Substances and Mixtures
3	<u>CAS Number</u> : Chemical Abstract Service Number, used by the American Chemical Society to uniquely identify a chemical.
5	<u>NFPA</u> : National Fire Protection Association. <u>NFPA FLAMMABILITY CLASSIFICATION</u> : The NFPA uses the flash point (Fl.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: Fl.P. below 73°F and BP below 100°F. Class IB: Fl.P. below 73°F and BP at or above 100°F. Class IC: Fl.P. at or above 73°F and BP at or above 100°F. Class II: Fl.P. at or above 100°F and below 140°F. Class IIIA: Fl.P. at or above 140°F and below 200°F. Class IIIB: Fl.P. at or above 200°F. <u>NFPA HAZARDOUS MATERIALS RATING</u> : This is a rating system used to summarize physical and health hazards to firefighters Blue = Health hazard; Red = Fire Hazard; Yellow = Reactivity Hazard. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
8	<u>ACGIH</u> : American Conference of Government Industrial Hygienists; <u>TWA</u> : Time-Weighted Average (over an 8-hour workday); <u>STEL</u> : Short-Term Exposure Limit (15-minute average, no more than 4 times daily and each exposure separated by one hour minimally); <u>C</u> : Ceiling Limit (concentration not to be exceeded in a work environment). <u>PEL</u> : Permissible Exposure Limit. <u>NIOSH</u> : National Institute of Occupational Safety and Health; <u>REL</u> : Recommended Exposure Limit; <u>IDLH</u> : Immediately Dangerous to Life and Health <u>ppm</u> : Parts per Million. <u>mg/m³</u> : Milligrams per cubic meter. <u>BEI</u> : Biological Exposure Limit. <u>MAK</u> : Maximum Concentration Values in the Workplace; <u>AIHA WEEL</u> : AIHA WEEL - American Industrial Hygiene Association Workplace Environment Exposure Levels; <u>OEL</u> : Occupational Exposure Limit.
9	<u>pH</u> : Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, a pH value of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. <u>FLASH POINT</u> : Temperature at which a liquid generates enough flammable vapors so that ignition may occur. <u>AUTOIGNITION TEMPERATURE</u> : Temperature at which spontaneous ignition occurs. <u>LOWER EXPLOSIVE LIMIT (LEL)</u> : The minimal concentration of flammable vapors in air which will sustain ignition. <u>UPPER EXPLOSIVE LIMIT (UEL)</u> : The maximum concentration of flammable vapors in air which will sustain ignition.
11	<u>CARCINOGENICITY STATUS</u> : <u>NTP</u> : National Toxicology Program. <u>IARC</u> : International Agency for Research on Cancer. <u>TOXICOLOGY DATA</u> : <u>LD_{xx}</u> or <u>LC_{xx}</u> : The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. <u>TD_{xx}</u> or <u>TC_{xx}</u> : The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designated route of administration.
12	<u>EC50</u> : Effect Concentration. <u>PBT or vPvB</u> : Persistent/ Bioaccumulative /Toxic; Very Persistent/ Very Bioaccumulative
13	<u>RCRA</u> : Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. <u>EPA RCRA Waste Codes</u> : Defined in 40 CFR Section 261.
15	<u>CERCLA</u> : Comprehensive Environmental Response, Compensation, and Liability Act. <u>SARA</u> : Superfund Amendments and Reauthorization Act. <u>TSCA</u> : Toxic Substances Control Act. <u>DSL/NDSL</u> : Domestic Substances List/Non-Domestic Substances List. <u>REACH</u> : European Union regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals.
16	<u>HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING</u> : This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SAFETY DATA SHEET

This document is in compliance with requirements for Safety Data Sheets implemented under U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2024 and equivalent State Standards), guidelines from the United Nations Globally Harmonized System of Classification of Chemicals (GHS), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Hazardous Products Regulations (HPR), and the European Union regulation on the Classification, Labelling and Packaging of Substances and Mixtures (EC No. 1272/2008, EU 2020/878, EU 2024/2865). See section 16 for more information on national regulations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFICATION

- **PRODUCT NAME:** AP MIX 4
- **PRODUCT CODE:** 806-00088-00

1.2 PRODUCT USE AND RESTRICTIONS

- **IDENTIFIED USE:** Kit component for protein sequencing process.
- **USES ADVISED AGAINST:** Procedures not related to the intended use of this product.
- **IDENTIFIED USERS:** For sale to, use, and storage by personnel trained in handling product safely.

1.3 MANUFACTURER INFORMATION

- **MANUFACTURER/SUPPLIER:** Quantum SI, Inc.
- **ADDRESS:** 29 Business Park Dr., Suite C; Branford, CT; 06405
- **BUSINESS PHONE:** 866-688-7374 (8:00 am to 5:00 pm, Eastern Standard Time)
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300
Outside US): +1-703- 527-3887
- **Email:** support@quantum-si.com

1.4 CANADIAN DISTRIBUTOR INFORMATION

- **DISTRIBUTOR:** VWR International Co.
- **ADDRESS:** 6040 Cantay Road; Mississauga, Ontario; Canada L5R 4J2
- **BUSINESS PHONE:** 1-800-932-5000
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300

SECTION 2: HAZARD IDENTIFICATION

2.1 HAZARD CLASSIFICATION (US OSHA, CANADIAN WHMIS, and EU CLP)

- Not classified as hazardous under pertinent national standards.

2.2 LABEL ELEMENTS (US OSHA, CANADIAN WHMIS, and EU CLP)

- **Hazard Pictograms:** Not applicable.
- **Signal Word:** Not applicable.
- **Hazard Statements:** Not applicable.
- **Precautionary Statements:** Not applicable.

2.3 OTHER PERTINENT DATA ON HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS

- **Contains no material classified as follows:** Endocrine disrupting properties: In relation to human health and in relation to the environment (ED). Persistent, Bioaccumulative and Toxic (PBT); Very persistent and very bioaccumulative (vPvB); Persistent, mobile, and toxic (PMT)' Very persistent and very mobile (vPvM).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 IDENTIFICATION OF HAZARDOUS SUBSTANCES IN PRODUCT

NAME	CAS NUMBER	GHS CLASSIFICATION COMPONENT	HAZARD FOR	% (w/w)

The components of this product are not hazardous or are below cut-off concentrations (and do not contribute physical or health hazards at the concentrations present in solution).

100%

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- BASIC FIRST AID BY EXPOSURE ROUTE:**

<u>AREA EXPOSED</u>	<u>TREATMENT</u>
Eye Contact:	Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention should any irritation develop.
Skin Contact:	Flush area with warm, running water for several minutes. Seek medical attention should any irritation develop.
Inhalation:	Obtain fresh air. Seek medical attention if irritation develops after exposure ends.
Ingestion:	If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- ACUTE HEALTH EFFECTS:**

<u>AREA EXPOSED</u>	<u>EFFECTS</u>
Eye Contact:	May cause eye irritation upon prolonged exposure.
Skin Contact:	May cause skin irritation upon prolonged exposure.
Inhalation:	Not anticipated to be a potential route of exposure.
Ingestion:	Not anticipated to be a potential route of exposure.

- CHRONIC HEALTH EFFECTS:** None known.

- TARGET ORGANS:** None known.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.

- RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.

- MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None known.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Dry Powder, Foam, Carbon Dioxide, or any other type.

- UNSUITABLE FIRE EXTINGUISHING MEDIA:** None.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- NFPA FLAMMABILITY CLASSIFICATION:**

NFPA Rating:



NFPA Hazard Classification: Not classified.

5.3 UNUSUAL HAZARDS IN FIRE SITUATIONS

<u>POTENTIAL HAZARD</u>	<u>DESCRIPTION FOR PRODUCT</u>
Decomposition:	Generates irritating vapors, carbon monoxide, carbon dioxide.
Incompatibilities:	See Section 10 (Reactivity and Stability).
Explosion Sensitivity to Mechanical Impact:	Not applicable.



Explosion Sensitivity to Static Not applicable.
Discharge:

SECTION 5: FIREFIGHTING MEASURES

5.4 ADVICE FOR FIREFIGHTERS

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases. Gloves and safety glasses must be worn when cleaning up spills. Use caution during clean-up; contaminated floors and items may be slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Use damp sponge or polypad to carefully cleanse contaminated area or items. If appropriate, further clean contaminated area and equipment with soap and water solution, followed by a water rinse.

6.2 ENVIRONMENTAL PRECAUTIONS

- **IN CASE OF SPILL:** Collect spillage promptly. Avoid response actions that can cause a release of a significant amount of substance into the environment. Avoid accidental dispersal of spilled material into soil, waterways, and sewers.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

- **SPILL RESPONSE EQUIPMENT:** Polypad or sponge. Appropriate waste container.

6.4 REFERENCE TO OTHER SECTIONS

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- **HYGIENE PRACTICES:** Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of mists, sprays, or aerosols. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.
- **HANDLING PRACTICES:** Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

7.2 CONDITIONS FOR SAFE STORAGE

- **STORAGE PRACTICES:** Ensure all containers are correctly labeled. Store containers away from direct sunlight, and sources of intense heat. Store this product away from incompatible chemicals. Inspect all incoming containers before storage, to ensure containers are properly labeled and not damaged. Empty containers may contain residual material; therefore, empty containers should be handled with care.
- **INCOMPATIBILITIES:** See Section 10 (Stability and Reactivity).

7.3 SPECIFIC END USES

- This product is for use in protein sequencing processes by trained laboratory personnel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

- **AIRBORNE EXPOSURE LIMITS:** No airborne occupational exposure limits have been established.

- **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** None established.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

- **DERIVED NO EFFECTS LEVEL:** Not established.
- **PREDICTED NO EFFECT CONCENTRATION:** Not established.

8.2 EXPOSURE CONTROLS

- **GENERAL GUIDELINES:** This product is intended for use by trained personnel as part of a kit.
- **ENGINEERING CONTROLS:** Ensure the area has adequate ventilation to ensure minimal inhalation of mists or sprays occurs. Eye wash stations and safety showers should be readily available.
- **RESPIRATORY PROTECTION:** None needed under normal circumstances of use.
- **HAND PROTECTION:** None typically needed for anticipated use. Neoprene or nitrile gloves are recommended if skin contact can occur (e.g., spill clean-up). Ensure gloves are intact prior to use.
- **EYE PROTECTION:** Safety glasses are recommended if splash or spray can occur during use (e.g., during refilling of unit).
- **BODY PROTECTION:** Body protection suitable to task is recommended (e.g., laboratory coat).
- **OTHER PROTECTIVE MEASURES:** Wash hands during breaks and at the end of handling the material. Immediately remove any contaminated clothing.

8.3 ENVIRONMENTAL EXPOSURE CONTROLS

- Minimize the generation of mists, sprays, or aerosols while using this product. Avoid release into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE AND DISTINGUISHING CHARACTERISTICS:**

<u>PROPERTY</u>	<u>DATA</u>
State:	Liquid
Color:	Colorless
Odor:	Odorless
Odor Threshold:	Not determined
pH:	7.5.

- **PHYSICAL DATA:**

<u>PROPERTY</u>	<u>DATA</u>
Melting Point/Freezing Point:	Not determined.
Initial Boiling Point/Boiling Range:	Not determined.
Flash Point:	≥100 °C (≥212 °F)
Evaporation Rate (Water = 1):	Approximately 1.0
Flammability:	Not applicable.
Upper/Lower Explosion Limits	Not applicable.
Vapor Pressure:	@ 20C (68F) ≤23 hPa (≤17.3 mm Hg).
Vapor Density	Not determined.
Relative Density at 20 °C (68 °F)	1 g/cm ³ (8.345 lb./gal)
Solubility:	Totally soluble in water
Partition Coefficient/n-octanol/water:	Not determined
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not determined.
Kinematic Viscosity:	Not determined.
Particle Characteristics:	Not applicable.

9.2 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

- **Information regarding Physical Hazard Classes** This product is not classified under any physical hazard class.
- **Other Safety Characteristics** Not applicable

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Continued)

9.3 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

Solvent Content:

- o Water: 97.6%
- o Volatile Organic Compound (VOC) Content: 0.0%

Solid Content: 1.0%:

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY AND CHEMICAL STABILITY

- The product is not reactive under typical conditions of use or handling.
- Normally stable under standard temperatures and pressures.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS (INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCY)

- Product is not self-reactive, water-reactive, or air-reactive; it will not undergo hazardous polymerization.

10.3 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals and adverse storage conditions.

10.4 INCOMPATIBLE MATERIALS

- Strong oxidizing agents.

10.5 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition include carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON ACUTE TOXICITY

- **PRODUCT TOXICOLOGY DATA:** The following are calculated estimates for the product:
 - o Acute Toxicity Estimate (Oral) > 5000 mg//kg
 - o Acute Toxicity Estimate (Dermal) > 5000 mg//kg
 - o Acute Toxicity Estimate (Inhalation) > 5 mg/L (dusts and mists)
- **DEGREE OF IRRITATION:** This product is not anticipated to cause skin or eye irritation.
- **SENSITIZATION:** This product does not contain any compound reported to as a skin or respiratory sensitizer.
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazard Information) and Section 4 (First-Aid Measures) for additional details.
 - o **Eyes:** May cause eye irritation upon prolonged exposure.
 - o **Skin:** May cause skin irritation upon prolonged exposure.
 - o **Inhalation** Not anticipated to be a significant route of occupational exposure.
 - o **Ingestion:** Not anticipated to be a significant route of occupational exposure.

11.2 INFORMATION ON CHRONIC TOXICITY

- **CARCINOGENICITY STATUS:** This product is not listed as a carcinogen by NTP, IARC, or OSHA.
- **REPRODUCTIVE TOXICITY INFORMATION:** Not applicable.
- **MUTAGENIC EFFECTS** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

11.3 OTHER USEFUL TOXICOLOGY INFORMATION

- **ENDOCRINE-DISRUPTING PROPERTIES:** Not applicable.
- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL TOXICITY

- This product is not anticipated to be harmful to the environment.

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

- Based on its total solubility in water, this product is expected to have significant mobility in soil.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

- Not classified as PBT or vPvB.

12.6 ENDOCRINE DISRUPTING PROPERTIES

- None reported.

12.7 OTHER ADVERSE ENVIRONMENTAL EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- Dispose of in accordance with local, state, and national regulations.

13.2 DISPOSAL CONSIDERATIONS

- EPA RCRA WASTE CODE:** Not applicable to wastes consisting only of this product.
- SEWAGE DISPOSAL:** Waste should not be disposed of by release to sewers.

13.3 DISPOSITION OF EMPTY CONTAINERS

- Empty containers may contain residual material; therefore, empty containers should be handled with care.
- Empty containers should be discarded properly.

SECTION 14: TRANSPORT INFORMATION

14.1 HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS

- DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:**

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION						

- CANADIAN TRANSPORTATION INFORMATION:** This product is not regulated by Transport Canada as a dangerous good.
- EUROPEAN TRANSPORT CLASSIFICATION BY ROAD (ADR)/RAIL (RID):** Product is not regulated as a dangerous good.
- IATA DESIGNATION:** Product is not regulated as a dangerous good by the International Air Transport Association.
- IMO DESIGNATION:** Product is not regulated as a dangerous good by the International Maritime Organization.

SECTION 14: TRANSPORT INFORMATION (Continued)

14.2 ENVIRONMENTAL HAZARDS

- None known.

14.3 SPECIAL PRECAUTIONS FOR TRANSPORTERS

- None established.

14.4 TRANSPORT IN BULK

- **ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:** Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 OTHER IMPORTANT U.S. SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **US TOXICITY SUBSTANCES CONTROL INVENTORY:** The components of this product are listed.
- **U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.
- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** Not applicable.
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable to the product, based on composition and volume.
- **U.S. SARA TITLE 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
- **US CLEAN AIR ACT (SECTION 112r):** Not applicable.

15.2 OTHER IMPORTANT U.S. STATE REGULATIONS FOR COMPONENTS

- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.
- **NEW JERSEY RIGHT TO KNOW LIST HAZARDOUS SUBSTANCES LIST:** No product ingredient is listed.
- **NEW JERSEY ENVIRONMENTAL SUBSTANCES LIST:** No product ingredient is listed.
- **PENNSYLVANIA RIGHT-TO-KNOW LIST:** No product ingredient is listed.

15.3 CANADIAN AND EU SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **ADDITIONAL WHMIS INFORMATION:** This SDS contains all the required elements under the Canadian Hazardous Products Regulations (SOR 2022-272).
- **CANADIAN DSL/NDL INVENTORY STATUS:** All components of this product are listed or exempted.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priority Substances Lists.
- **E.U. REACH:** Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances. REACH (1907/2006). Contains no substance with REACH Restrictions.

15.4 CHEMICAL SAFETY ASSESSMENT

- **ASSESSMENT INFORMATION:** No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF PREPARATION:** August 18, 2025
- **SUPERCEDES:** Not applicable.
- **CHANGE INDICATED:** New product.

16.2 HAZARDOUS MATERIALS SYSTEM RATING

Health	0	<i>(Personal Protective Equipment Rating: Occupational Use situations: Refer to section 8 for guidance on the selection of personal production.</i>
Flammability	0	
Physical Hazard	0	
Protective Equipment	*	

SECTION 16: OTHER INFORMATION (Continued)

16.3 DEFINITIONS

SECTION	EXPLANATION OF TERMS/ABBREVIATIONS
ALL	<u>OSHA</u> : U.S. Federal Occupational Safety and Health Administration. <u>WHMIS</u> : Canadian Workplace Hazardous Materials Standard. <u>GHS</u> : Globally Harmonized System of Classification of Chemical Substances. <u>HCS</u> : Hazard Communication Standard (U.S.). <u>HPR</u> : Hazardous Products Regulations (Canada). <u>EU</u> : European Union. <u>CLP</u> : Union Classification, Labelling and Packaging of Substances and Mixtures
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5	<u>NFPA</u> : National Fire Protection Association. <u>NFPA FLAMMABILITY CLASSIFICATION</u> : The NFPA uses the flash point (Fl.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: Fl.P. below 73°F and BP below 100°F. Class IB: Fl.P. below 73°F and BP at or above 100°F. Class IC: Fl.P. at or above 73°F and BP at or above 100°F. Class II: Fl.P. at or above 100°F and below 140°F. Class IIIA: Fl.P. at or above 140°F and below 200°F. Class IIIB: Fl.P. at or above 200°F. <u>NFPA HAZARDOUS MATERIALS RATING</u> : This is a rating system used to summarize physical and health hazards to firefighters Blue = Health hazard; Red = Fire Hazard; Yellow = Reactivity Hazard. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
8	<u>ACGIH</u> : American Conference of Government Industrial Hygienists; <u>TWA</u> : Time-Weighted Average (over an 8-hour workday); <u>STEL</u> : Short-Term Exposure Limit (15-minute average, no more than 4 times daily and each exposure separated by one hour minimally); <u>C</u> : Ceiling Limit (concentration not to be exceeded in a work environment). <u>PEL</u> : Permissible Exposure Limit. <u>NIOSH</u> : National Institute of Occupational Safety and Health; <u>REL</u> : Recommended Exposure Limit; <u>IDLH</u> : Immediately Dangerous to Life and Health <u>ppm</u> : Parts per Million. <u>mg/m³</u> : Milligrams per cubic meter. <u>BEI</u> : Biological Exposure Limit. <u>MAK</u> : Maximum Concentration Values in the Workplace; <u>AIHA WEEL</u> : AIHA WEEL - American Industrial Hygiene Association Workplace Environment Exposure Levels; <u>OEL</u> : Occupational Exposure Limit.
9	<u>pH</u> : Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, a pH value of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. <u>FLASH POINT</u> : Temperature at which a liquid generates enough flammable vapors so that ignition may occur. <u>AUTOIGNITION TEMPERATURE</u> : Temperature at which spontaneous ignition occurs. <u>LOWER EXPLOSIVE LIMIT (LEL)</u> : The minimal concentration of flammable vapors in air which will sustain ignition. <u>UPPER EXPLOSIVE LIMIT (UEL)</u> : The maximum concentration of flammable vapors in air which will sustain ignition.
11	<u>CARCINOGENICITY STATUS</u> : <u>NTP</u> : National Toxicology Program. <u>IARC</u> : International Agency for Research on Cancer. <u>TOXICOLOGY DATA</u> : <u>LD_{xx}</u> or <u>LC_{xx}</u> : The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. <u>TD_{xx}</u> or <u>TC_{xx}</u> : The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
12	<u>EC50</u> : Effect Concentration. <u>PBT or vPvB</u> : Persistent/ Bioaccumulative /Toxic; Very Persistent/ Very Bioaccumulative
13	<u>RCRA</u> : Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. <u>EPA RCRA Waste Codes</u> : Defined in 40 CFR Section 261.
15	<u>CERCLA</u> : Comprehensive Environmental Response, Compensation, and Liability Act. <u>SARA</u> : Superfund Amendments and Reauthorization Act. <u>TSCA</u> : Toxic Substances Control Act. <u>DSL/NDL</u> : Domestic Substances List/Non-Domestic Substances List. <u>REACH</u> : European Union regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals.
16	<u>HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING</u> : This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SAFETY DATA SHEET

This document is in compliance with requirements for Safety Data Sheets implemented under U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2024 and equivalent State Standards), guidelines from the United Nations Globally Harmonized System of Classification of Chemicals (GHS), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Hazardous Products Regulations (HPR), and the European Union regulation on the Classification, Labelling and Packaging of Substances and Mixtures (EC No. 1272/2008, EU 2020/878, EU 2024/2865). See section 16 for more information on national regulations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFICATION

- **PRODUCT NAME: QUENCHER**
- **PRODUCT CODE: 806-00071-00**

1.2 PRODUCT USE AND RESTRICTIONS

- **IDENTIFIED USE:** Kit component for protein sequencing process.
- **USES ADVISED AGAINST:** Procedures not related to the intended use of this product.
- **IDENTIFIED USERS:** For sale to, use, and storage by personnel trained in handling product safely.

1.3 MANUFACTURER INFORMATION

- **MANUFACTURER/SUPPLIER: Quantum SI, Inc.**
- **ADDRESS:** 29 Business Park Dr., Suite C; Branford, CT; 06405
- **BUSINESS PHONE:** 866-688-7374 (8:00 am to 5:00 pm, Eastern Standard Time)
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300
Outside US): +1-703- 527-3887
- **Email:** support@quantum-si.com

1.4 CANADIAN DISTRIBUTOR INFORMATION

- **DISTRIBUTOR:** VWR International Co.
- **ADDRESS:** 6040 Cantay Road; Mississauga, Ontario; Canada L5R 4J2
- **BUSINESS PHONE:** 1-800-932-5000
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300

SECTION 2: HAZARD IDENTIFICATION

2.1 HAZARD CLASSIFICATION (US OSHA, CANADIAN WHMIS, and EU CLP)

- Eye irritation (Category 2A), Skin Sensitization (Category 1)

2.2 LABEL ELEMENTS (US OSHA, CANADIAN WHMIS, and EU CLP)

- **Hazard Pictograms:**



- **Signal Word:** Warning.
- **Hazard Statements:** H317: May cause an allergic skin reaction. H319: Causes serious eye irritation.
- **Precautionary Statements:** P280: Wear protective gloves/protective clothing/eye protection/face protection P302 + P352: IF ON SKIN: Wash with plenty of soap and water P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing P337 + P313: If eye irritation persists: Get medical advice/attention.

2.3 OTHER PERTINENT DATA ON HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS

- **Contains no material classified as follows:** Endocrine disrupting properties: In relation to human health and in relation to the environment (ED). Persistent, Bioaccumulative and Toxic (PBT); Very persistent and very bioaccumulative (vPvB); Persistent, mobile and toxic (PMT)' Very persistent and very mobile (vPvM).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3. IDENTIFICATION OF HAZARDOUS SUBSTANCES IN PRODUCT

1

NAME	CAS NUMBER	GHS HAZARD COMPONENT	CLASSIFICATION FOR	% (w/w) ₁
Sodium Pyruvate	113-24-6	Eye irritation (Category 2A), Skin Sensitization (Category 1)		7-13%

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- BASIC FIRST AID BY EXPOSURE ROUTE:**

AREA EXPOSED TREATMENT

Eye Contact: Flush with copious amounts of water for 15 minutes. "Roll" eyes during flush. Seek medical attention should any irritation develop.

Skin Contact: Flush area with warm, running water for several minutes. Seek medical attention should any irritation or rash develop.

Inhalation: Obtain fresh air. Seek medical attention if irritation develops after exposure ends.

Ingestion: If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- ACUTE HEALTH EFFECTS:**

AREA EXPOSED EFFECTS

Eye Contact: Causes serious eye irritation.

Skin Contact: May cause skin irritation or allergic skin reactions.

Inhalation: Not anticipated to be a potential route of exposure.

Ingestion: Not anticipated to be a potential route of exposure.

- CHRONIC HEALTH EFFECTS:** Prolonged or repeated skin contact may cause allergic reactions (e.g., rash, redness).
- TARGET ORGANS:** Skin, eyes.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.
- RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.
- MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None known.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Dry Powder, Foam, Carbon Dioxide, or any other type.
- UNSUITABLE FIRE EXTINGUISHING MEDIA:** None.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- NFPA FLAMMABILITY CLASSIFICATION:**

NFPA Rating:



¹ The exact composition is a trade secret. All required hazard and safety information has been provided for the products, per the regulations.

NFPA **Hazard** Not classified.
Classification:

SECTION 5: FIREFIGHTING MEASURES (Continued)

5.3 UNUSUAL HAZARDS IN FIRE SITUATIONS

POTENTIAL HAZARD

Decomposition:

Incompatibilities:

Explosion Sensitivity to Mechanical Impact:

Explosion Sensitivity to Static Discharge:

DESCRIPTION FOR PRODUCT

Generates irritating vapors, carbon monoxide, carbon dioxide, and sodium compounds.

See Section 10 (Reactivity and Stability).

Not applicable.

Not applicable.

5.4 ADVICE FOR FIREFIGHTERS

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES

- **RESPONSE TO INCIDENTAL RELEASES:** Personnel who have received basic chemical safety training can generally handle small-scale releases. Gloves and safety glasses must be worn when cleaning up spills. Use caution during clean-up; contaminated floors and items may be slippery.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Generally, releases of this product will be no larger than the loss of one shipment of material. Subsequently, personnel can follow the instructions for incidental releases.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** Use damp sponge or polypad to carefully cleanse contaminated area or items. If appropriate, further clean contaminated area and equipment with soap and water solution, followed by a water rinse.

6.2 ENVIRONMENTAL PRECAUTIONS

- **IN CASE OF SPILL:** Collect spillage promptly. Avoid response actions that can cause a release of a significant amount of substance into the environment. Avoid accidental dispersal of spilled material into soil, waterways, and sewers.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP

- **SPILL RESPONSE EQUIPMENT:** Polypad or sponge. Appropriate waste container.

6.4 REFERENCE TO OTHER SECTIONS

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

- **HYGIENE PRACTICES:** Follow good chemical hygiene practices. Do not smoke, drink, eat, or apply cosmetics in the chemical use area. Avoid inhalation of mists, sprays, or aerosols. Use in well-ventilated area. Avoid contact with skin or eyes. Remove contaminated clothing promptly. Clean up spilled product immediately.
- **HANDLING PRACTICES:** Employees must be appropriately trained to use this product safely as needed. Keep containers closed when not in use.

7.2 CONDITIONS FOR SAFE STORAGE

- **STORAGE PRACTICES:** Ensure all containers are correctly labeled. Store containers away from direct sunlight and sources of intense heat. Store this product away from incompatible chemicals. Inspect all incoming containers before storage to ensure that containers are properly labeled and not damaged.

Empty containers may contain residual material; therefore, empty containers should be handled with care.

- **INCOMPATIBILITIES:** See Section 10 (Stability and Reactivity).

7.3 SPECIFIC END USES

- This product is for use in protein sequencing processes by trained laboratory personnel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

- **AIRBORNE EXPOSURE LIMITS:** No occupational airborne exposure levels have been established.
- **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** None established.
- **DERIVED NO EFFECTS LEVEL:** The following DNELs have been established for the components of this product.
 - **SODIUM PYRUVATE:** Oral, long-term, systemic effects (general population):1,573mg/kg; Dermal, long-term, systemic effects (worker): 3,146mg/kg; Dermal, long-term, systemic effects (general population):1,573mg/kg; Inhalative, long-term, systemic effects (worker): 3,952mg/m³; Inhalative, long-term, systemic effects (general population):983mg/m³
- **PREDICTED NO EFFECT CONCENTRATION:** The following PNECs have been established for the components of this product:
 - **SODIUM PYRUVATE:** . 0.019mg/L for freshwater and 0.0019mg/L for marine water.

8.2 EXPOSURE CONTROLS

- **GENERAL GUIDELINES:** This product is intended for use by trained personnel as part of a kit.
- **ENGINEERING CONTROLS:** Ensure the area has adequate ventilation to ensure minimal inhalation of mists or sprays occurs. Eye wash stations and safety showers should be readily available.
- **RESPIRATORY PROTECTION:** None needed under normal circumstances of use.
- **HAND PROTECTION:** None typically needed for anticipated use. Neoprene or nitrile gloves are recommended if skin contact can occur (e.g., spill clean-up). Ensure gloves are intact prior to use.
- **EYE PROTECTION:** Safety glasses are recommended if splash or spray can occur during use (e.g., during refilling of unit).
- **BODY PROTECTION:** Body protection suitable to task is recommended (e.g., laboratory coat).
- **OTHER PROTECTIVE MEASURES:** Wash hands during breaks and at the end of handling the material. Immediately remove any contaminated clothing.

8.3 ENVIRONMENTAL EXPOSURE CONTROLS

- Minimize the generation of mists, sprays, or aerosols while using this product. Avoid release into the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE AND DISTINGUISHING CHARACTERISTICS:**

<u>PROPERTY</u>	<u>DATA</u>
State:	Liquid
Color:	Colorless
Odor:	Odorless
Odor Threshold:	Not determined
pH:	Not determined

- **PHYSICAL DATA:**

<u>PROPERTY</u>	<u>DATA</u>
Melting Point/Freezing Point:	Not determined.
Initial Boiling Point/Boiling Range:	Not determined.
Flash Point:	≥100 °C (≥212 °F)
Evaporation Rate (Water = 1):	Approximately 1.0
Flammability:	Not applicable.

Upper/Lower Explosion Limits	Not applicable.
Vapor Pressure:	@ 20C (68F) ≤23 hPa (≤17.3 mm Hg).
Vapor Density	Not determined.
Relative Density at 20 °C (68 °F)	Not determined.
Solubility:	Totally soluble in water
Partition Coefficient/n-octanol/water:	Not determined
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not determined.
Kinematic Viscosity:	Not determined.
Particle Characteristics:	Not applicable.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES (Continued)

9.2 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

- **Information regarding Physical Hazard Classes** This product is not classified under any physical hazard class.
- **Other Safety Characteristics**
 - **Solvent Content:**
 - Volatile Organic Compound (VOC) Content: 0.0%

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY AND CHEMICAL STABILITY

- The product is not reactive under typical conditions of use or handling.
- Normally stable under standard temperatures and pressures.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS (INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCY)

- Product is not self-reactive, water-reactive, or air-reactive; it will not undergo hazardous polymerization.

10.3 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals and adverse storage conditions.

10.4 INCOMPATIBLE MATERIALS

- Strong oxidizing agents.

10.5 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition include carbon monoxide, carbon dioxide, and sodium compounds.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON ACUTE TOXICITY

- **PRODUCT TOXICOLOGY DATA:** The following are calculated estimates for the product:
 - Acute Toxicity Estimate (Oral) > 5000 mg//kg
 - Acute Toxicity Estimate (Dermal) > 5000 mg//kg
 - Acute Toxicity Estimate (Inhalation) > 5 mg/L (dusts and mists)
- **COMPONENT TOXICOLOGY DATA:** The following data are available for components of this product:
 - SODIUM PYRUVATE:**
LD50 (oral, rat) = 5,600mg/kg
 - **DEGREE OF IRRITATION:** This product is not anticipated to cause skin or eye irritation.
 - **SENSITIZATION:** This product contains a skin sensitizer. Prolonged or repeated contact can cause allergic skin reactions.
 - **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazard Information) and Section 4 (First-Aid Measures) for additional details.

QUANTUM SI™

- o **Eyes:** Causes serious eye irritation.
- o **Skin:** May cause skin irritation or allergic skin reactions.
- o **Inhalation** : Not anticipated to be a significant route of occupational exposure.
- o **Ingestion:** Not anticipated to be a significant route of occupational exposure.

11.2 **INFORMATION ON CHRONIC TOXICITY**

- **CARCINOGENICITY STATUS:** This product is not listed as a carcinogen by NTP, IARC, or OSHA.
- **REPRODUCTIVE TOXICITY INFORMATION:** Not applicable.
- **MUTAGENIC EFFECTS** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

SECTION 11: TOXICOLOGICAL INFORMATION (Continued)

11.3 OTHER USEFUL TOXICOLOGY INFORMATION

- **ENDOCRINE-DISRUPTING PROPERTIES:** Not applicable.
- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL TOXICITY

- The following aquatic toxicity data is available for the components of this product

SODIUM PYRUVATE:

Toxicity to aquatic invertebrates (*Daphnia magna*): EC50 (48h): >100mg/l)

Toxicity to algae/aquatic plants (*Raphidocelis subcapitata*, freshwater green alga): ErC50 (72h): >3.02mg/l (growth inhibition)

12.2 PERSISTENCE AND DEGRADABILITY

- When released into the soil, the components of this product are expected to biodegrade, dissipate in soils via oxidation, or otherwise chemically degrade or photo-decompose via solar radiation.
- Sodium Pyruvate, a component of this product, is readily biodegradable: 81.6% in 28 days.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

12.4 MOBILITY IN SOIL

- Based on its total solubility in water, this product is expected to have significant mobility in soil.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

- Not classified as PBT or vPvB.

12.6 ENDOCRINE DISRUPTING PROPERTIES

- None reported.

12.7 OTHER ADVERSE ENVIRONMENTAL EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- Dispose of in accordance with local, state, and national regulations.

13.2 DISPOSAL CONSIDERATIONS

- **EPA RCRA WASTE CODE:** Not applicable to wastes consisting only of this product.
- **SEWAGE DISPOSAL:** Waste should not be disposed of by release to sewers.

13.3 DISPOSITION OF EMPTY CONTAINERS

- Empty containers may contain residual material; therefore, empty containers should be handled with care.

- Empty containers should be discarded properly.

SECTION 14: TRANSPORT INFORMATION

14.1 HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS

- **DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:**

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION						

- **CANADIAN TRANSPORTATION INFORMATION:** This product is not regulated by Transport Canada as a dangerous good.
- **EUROPEAN TRANSPORT CLASSIFICATION BY ROAD (ADR)/RAIL (RID):** Product is not regulated as a dangerous good.
- **IATA DESIGNATION:** Product is not regulated as a dangerous good by the International Air Transport Association.
- **IMO DESIGNATION:** Product is not regulated as a dangerous good by the International Maritime Organization.

14.2 ENVIRONMENTAL HAZARDS

- None known.

14.3 SPECIAL PRECAUTIONS FOR TRANSPORTERS

- None established.

14.4 TRANSPORT IN BULK

- **ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:** Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 OTHER IMPORTANT U.S. SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **US TOXICITY SUBSTANCES CONTROL INVENTORY:** The components of this product are listed.
- **U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.
- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** Not applicable.
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable to the product, based on composition and volume.
- **U.S. SARA TITLE 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
- **US CLEAN AIR ACT (SECTION 112r):** Not applicable.

15.2 OTHER IMPORTANT U.S. STATE REGULATIONS FOR COMPONENTS

- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.
- **NEW JERSEY RIGHT TO KNOW LIST HAZARDOUS SUBSTANCES LIST:** No product ingredient is listed.
- **NEW JERSEY ENVIRONMENTAL SUBSTANCES LIST:** No product ingredient is listed.
- **PENNSYLVANIA RIGHT-TO-KNOW LIST:** No product ingredient is listed.

15.3 CANADIAN AND EU SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **ADDITIONAL WHMIS INFORMATION:** This SDS contains all the required elements under the Canadian Hazardous Products Regulations (SOR 2022-272).
- **CANADIAN DSL/NDSL INVENTORY STATUS:** All components of this product are listed or exempted.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priority Substances Lists.

- **E.U. REACH:** Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances. REACH (1907/2006). Contains no substance with REACH Restrictions.

15.4 CHEMICAL SAFETY ASSESSMENT

- **ASSESSMENT INFORMATION:** No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF PREPARATION:** August 18, 2025
- **SUPERCEDES:** Not applicable.
- **CHANGE INDICATED:** New product.

16.2 HAZARDOUS MATERIALS SYSTEM RATING

Health	1*	*Skin sensitization.
Flammability	0	<i>(Personal Protective Equipment Rating: Occupational Use situations: Refer to section 8 for guidance on the selection of personal production.</i>
Physical Hazard	0	
Protective Equipment	*	

16.3 DEFINITIONS

SECTION EXPLANATION OF TERMS/ABBREVIATIONS

SECTION	EXPLANATION OF TERMS/ABBREVIATIONS
ALL	OSHA: U.S. Federal Occupational Safety and Health Administration. WHMIS: Canadian Workplace Hazardous Materials Standard. GHS: Globally Harmonized System of Classification of Chemical Substances. HCS: Hazard Communication Standard (U.S.). HPR: Hazardous Products Regulations (Canada). EU: European Union. CLP: Union Classification, Labelling and Packaging of Substances and Mixtures
3	CAS Number: Chemical Abstract Service Number, used by the American Chemical Society to uniquely identify a chemical.
5	NFPA: National Fire Protection Association. NFPA FLAMMABILITY CLASSIFICATION: The NFPA uses the flash point (Fl.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: Fl.P. below 73°F and BP below 100°F. Class IB: Fl.P. below 73°F and BP at or above 100°F. Class IC: Fl.P. at or above 73°F and BP at or above 100°F. Class II: Fl.P. at or above 100°F and below 140°F. Class IIIA: Fl.P. at or above 140°F and below 200°F. Class IIIB: Fl.P. at or above 200°F. NFPA HAZARDOUS MATERIALS RATING: This is a rating system used to summarize physical and health hazards to firefighters Blue = Health hazard; Red = Fire Hazard; Yellow = Reactivity Hazard. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.
8	ACGIH: American Conference of Government Industrial Hygienists; TWA: Time-Weighted Average (over an 8-hour workday); STEL: Short-Term Exposure Limit (15-minute average, no more than 4 times daily and each exposure separated by one hour minimally); C: Ceiling Limit (concentration not to be exceeded in a work environment). PEL: Permissible Exposure Limit. NIOSH: National Institute of Occupational Safety and Health; REL: Recommended Exposure Limit; IDLH: Immediately Dangerous to Life and Health ppm: Parts per Million. mg/m³: Milligrams per cubic meter. BEI: Biological Exposure Limit. MAK: Maximum Concentration Values in the Workplace; AIHA WEEL: AIHA WEEL - American Industrial Hygiene Association Workplace Environment Exposure Levels; OEL: Occupational Exposure Limit.
9	pH: Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, a pH value of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. FLASH POINT: Temperature at which a liquid generates enough flammable vapors so that ignition may occur. AUTOIGNITION TEMPERATURE: Temperature at which spontaneous ignition occurs. LOWER EXPLOSIVE LIMIT (LEL): The minimal concentration of flammable vapors in air which will sustain ignition. UPPER EXPLOSIVE LIMIT (UEL): The maximum concentration of flammable vapors in air which will sustain ignition.
11	CARCINOGENICITY STATUS: NTP: National Toxicology Program. IARC: International Agency for Research on Cancer. TOXICOLOGY DATA: LD_{xx} or LC_{xx}: The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. TD_{xx} or TC_{xx}: The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
12	EC50: Effect Concentration. PBT or vPvB: Persistent/ Bioaccumulative /Toxic; Very Persistent/ Very Bioaccumulative

SECTION EXPLANATION OF TERMS/ABBREVIATIONS

- 13** RCRA: Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. EPA RCRA Waste Codes: Defined in 40 CFR Section 261.
- 15** CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act. SARA: Superfund Amendments and Reauthorization Act. TSCA: Toxic Substances Control Act. DSL/NDSL: Domestic Substances List/Non-Domestic Substances List. REACH: European Union regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals.
- 16** HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING: This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

1 Identification

- **Product Identifier**
- **Trade Name: Seq Buffer 4**
- **Product Number:** 806-00090-00
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Kit Component
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Quantum-Si, Inc.
29 Business Park Drive
Branford, CT 06405
860-577-0668
www.quantum-si.com/
- **Emergency telephone number:**
Chemtrec (US and Canada): (800) 424-9300
Chemtrec (Outside US): +1 (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
Aquatic Acute 3 H402 Harmful to aquatic life.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:**
H402 Harmful to aquatic life.
- **Precautionary statements:**
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
2.1 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = *0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: **Seq Buffer 4**

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

- **Dangerous Components:**

1132-61-2	4-morpholinopropanesulphonic acid ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	≤2.5%
68131-39-5	C12-15 Alcohol Ethoxylate ⚠ Eye Damage 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Acute Toxicity - Oral 4, H302; ⚠ Skin Irritation 2, H315	≤2.5%

- **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- **Description of first aid measures**
- **General information:** If symptoms persist, call a physician.
- **After inhalation:** In case of unconsciousness place patient stably in the side position for transportation.
- **After skin contact:**
Wash with soap and water.
Generally, the product does not irritate the skin.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
If eye irritation occurs, consult a doctor.
Rinse opened eye for several minutes under running water.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
Move containers from fire area if possible to do so without risk. Use water spray to cool fire-exposed containers.
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: Seq Buffer 4

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face piece operated in positive pressure mode.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

· PAC-1:		
142-72-3	Magnesium Di(Acetate)	26 mg/m ³
127-08-2	Potassium Acetate	9.8 mg/m ³
· PAC-2:		
142-72-3	Magnesium Di(Acetate)	280 mg/m ³
127-08-2	Potassium Acetate	110 mg/m ³
· PAC-3:		
142-72-3	Magnesium Di(Acetate)	1,700 mg/m ³
127-08-2	Potassium Acetate	640 mg/m ³

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**
- **Components with occupational exposure limits:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: Seq Buffer 4

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Not required.
- **Protection of hands:**
Protective gloves recommended in manufacturing.



Protective gloves

- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Goggles recommended during refilling.

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance:

- | | |
|---|-------------------------------|
| · Form: | Liquid |
| · Color: | Colorless |
| · Odor: | Odorless |
| · Odor threshold: | Not determined. |
| · pH-value: | Not determined. |
| · Change in condition | |
| · Melting point/Melting range: | Not determined. |
| · Boiling point/Boiling range: | ≥100 °C (≥212 °F) |
| · Flash point: | None |
| · Flammability (solid, gaseous): | Not applicable. |
| · Auto igniting: | Not applicable |
| · Decomposition temperature: | Not determined. |
| · Ignition temperature: | Product is not self-igniting. |

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: Seq Buffer 4

- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - Lower:** Not determined.
 - Upper:** Not determined.
- **Vapor pressure @ 20 °C (68 °F):** ≤23 hPa (≤17.3 mm Hg)
- **Density:** Not determined.
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - VOC content:** 0.00 %
0.0 g/l / 0.00 lb/gal
 - Solids content:** 3.9 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

68131-39-5 C12-15 Alcohol Ethoxylate

Oral	LD50	500-2,000 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rat)
Inhalative	LC50/4 h	>20 mg/l (Rat)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: Seq Buffer 4

- **On the eye:** Irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

- **Carcinogenic categories:**

· IARC (International Agency for Research on Cancer):
None of the ingredients are listed.
· NTP (National Toxicology Program):
None of the ingredients are listed.
· OSHA-Ca (Occupational Safety & Health Administration):
None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:**
Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

68131-39-5 C12-15 Alcohol Ethoxylate
EC50 1 mg/l (Daphnia)

- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
Harmful to aquatic organisms
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: Seq Buffer 4

14 Transport Information

- **UN-Number:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.
- **SARA (Superfund Amendments and Reauthorization):**

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.
· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.
· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.
· Hazardous Air Pollutants
None of the ingredients are listed.
· California Proposition 65:
· Chemicals known to cause cancer:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
· New Jersey Right-to-Know List:
None of the ingredients are listed.

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: Seq Buffer 4

· New Jersey Special Hazardous Substance List:
None of the ingredients are listed.
· Pennsylvania Right-to-Know List:
None of the ingredients are listed.
· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
· GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms: Non-Regulated Material
· Signal word: Non-Regulated Material
· Hazard statements:
H402 Harmful to aquatic life.
· Precautionary statements:
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· National regulations:
The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 08/27/2025

Reviewed on 08/27/2025

Trade Name: **Seq Buffer 4**

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety and Health

OSHA: Occupational Safety & Health Administration

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

1 Identification

- **Product Identifier**
- **Trade Name:** Trolox
- **Product Number:** 806-00005-00
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Kit Component
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Quantum-Si, Inc.
530 Old Whitfield St.
Guilford, CT 06437
860-577-0668
www.quantum-si.com/
- **Emergency telephone number:**
Chemtrec (US and Canada): (800) 424-9300
Chemtrec (Outside US): +1 (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**



Flame

Flammable Liquids 2

H225 Highly flammable liquid and vapor.



Eye Irritation 2A

H319 Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure 3

H335 May cause respiratory irritation.

- **Label elements:**
- **Hazard pictograms:**



- **Signal word:** Danger
- **Hazard-determining components of labeling:**
Ethanol
- **Hazard statements:**
H225 Highly flammable liquid and vapor.
H319 Causes serious eye irritation.
H335 May cause respiratory irritation.
- **Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P240 Ground/bond container and receiving equipment.

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

- P241 Use explosion-proof electrical/ventilating/lighting/equipment.
- P242 Use only non-sparking tools.
- P243 Take precautionary measures against static discharge.
- P261 Avoid breathing dust/fume/gas/mist/vapors/spray.
- P264 Wash thoroughly after handling.
- P271 Use only outdoors or in a well-ventilated area.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
- P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
- P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P312 Call a poison center/doctor if you feel unwell.
- P337+P313 If eye irritation persists: Get medical advice/attention.
- P370+P378 In case of fire: Use CO₂, powder or water spray to extinguish.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P403+P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Unknown acute toxicity:**

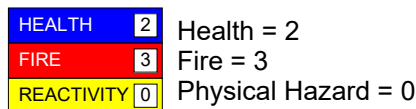
This value refers to knowledge of known, established toxicological or ecotoxicological values. 0 % of the mixture consists of component(s) of unknown toxicity.

· **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Hazard(s) not otherwise classified (HNOC):** None known

3 Composition/Information on Ingredients

· **Chemical characterization: Substance**

· **Description:** Mixture of substances listed below with non-hazardous additions.

· **Dangerous Components:**

CAS: 64-17-5	Ethanol	≥85%
RTECS: KQ 6300000	⚠ Flammable Liquids 2, H225; ⚠ Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

· **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

· **Description of first aid measures**

· **General information:** If symptoms persist, call a physician.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:**

Wash with soap and water.

If skin irritation occurs, consult a doctor.

· **After eye contact:**

Rinse opened eye for at least 15 minutes under running water. If symptoms persist, consult a doctor.

If easy to do so, remove contact lenses if worn.

If eye irritation occurs, consult a doctor.

· **After swallowing:** If swallowed and symptoms occur, consult a doctor.

· **Information for doctor**

· **Most important symptoms and effects, both acute and delayed:** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed:**

No further relevant information available.

5 Fire-Fighting Measures

· **Extinguishing media**

· **Suitable extinguishing agents:**

CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

· **For safety reasons unsuitable extinguishing agents:** No further relevant information.

· **Special hazards arising from the substance or mixture:** No further relevant information available.

· **Advice for firefighters**

· **Special protective equipment for firefighters:**

As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

· **Personal precautions, protective equipment and emergency procedures:**

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:** Dilute with plenty of water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).

Ensure adequate ventilation.

Dispose of the collected material according to regulations.

· **Reference to other sections:**

See Section 7 for information on safe handling.

See Section 8 for information on personal protection equipment.

See Section 13 for disposal information.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

· PAC-1:		
64-17-5	Ethanol	1,800 ppm
· PAC-2:		
64-17-5	Ethanol	3300* ppm
· PAC-3:		
64-17-5	Ethanol	15000* ppm

7 Handling and Storage

- **Handling**
- **Precautions for safe handling:**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect from heat.
Protect against electrostatic charges.
- **Conditions for safe storage, including any incompatibilities**
- **Storage**
- **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
Protect from heat and direct sunlight.
- **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.
- **Control parameters:**

· Components with occupational exposure limits:	
64-17-5 Ethanol	
PEL	Long-term value: 1900 mg/m ³ , 1000 ppm
REL	Long-term value: 1900 mg/m ³ , 1000 ppm
TLV	Short-term value: 1000 ppm
A3	

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.
- **Exposure controls:**
- **Personal protective equipment**
- **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing and wash before reuse.

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

Wash hands before breaks and at the end of work.

Avoid contact with the eyes.

- **Breathing equipment:** Not required.
- **Protection of hands:** Protective gloves recommended in manufacturing.
- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Tightly sealed goggles

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

· Information on basic physical and chemical properties

· General Information

· Appearance:

Form:

Liquid

Color:

Colorless

· Odor:

Alcohol-like

· Odor threshold:

Not determined.

· pH-value:

Not determined.

· Change in condition

Melting point/Melting range:

Not determined.

Boiling point/Boiling range:

≥78 °C (≥172.4 °F)

· Flash point:

≥13 °C (≥55.4 °F)

· Flammability (solid, gaseous):

Not applicable.

· Auto igniting:

≥425 °C (≥797 °F)

· Decomposition temperature:

Not determined.

· Ignition temperature:

Product is not self-igniting.

· Danger of explosion:

Product is not explosive. However, formation of explosive air/vapor mixtures are possible.

· Explosion limits:

Lower:

≥3.5 Vol %

Upper:

≤15 Vol %

· Vapor pressure @ 20 °C (68 °F):

≤59 hPa (≤44.3 mm Hg)

· Density:

Not determined.

· Relative density:

Not determined.

· Vapor density:

Not determined.

· Evaporation rate:

Not determined.

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - Organic solvents:** <95.0 %
 - VOC content:** <95.00 %
<950.0 g/l / <7.93 lb/gal
- **Solids content:** 0.0 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** Reacts with oxygen in the presence of glucose.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** Heat, flame and ignition sources.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

64-17-5 Ethanol

Oral	LD50	7,060 mg/kg (Rat) Remarks: Lungs, Thorax, or Respiration: Other changes. Carcinogenicity - Mouse - Oral Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence Central nervous system - Breathing difficulties - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence
Inhalative	LC50/4 h	20,000 mg/l (Rat)
	LC50/96 hours	12,900-15,300 mg/l (Trout)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

- **On the eye:** Irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant
- **Carcinogenic categories:**
- **IARC (International Agency for Research on Cancer):**
Group 1 - Carcinogenic to humans
Group 2A - Probably carcinogenic to humans
Group 2B - Possibly carcinogenic to humans
Group 3 - Not classifiable as to its carcinogenicity to humans
Group 4 - Probably not carcinogenic to humans
The IARC (the International Agency for Research on Cancer) concluded that ethanol found alcoholic beverages to be Group 1 - Carcinogenic to humans. All other instances it is not consider carcinogenic.

64-17-5 Ethanol	1
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- **NTP (National Toxicology Program):**

None of the ingredients are listed.

- **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

- **Toxicity:**

- **Aquatic toxicity:**

64-17-5 Ethanol

EC50 34,900 mg/l (Daphnia)

- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

- **UN-Number:** UN1170
- **DOT, ADR/ADN, IMDG, IATA** UN1170
- **UN proper shipping name:** Ethanol mixture
- **DOT** Ethanol mixture
- **ADR/ADN** UN1170 ETHANOL (ETHYL ALCOHOL) mixture
- **IMDG** ETHANOL (ETHYL ALCOHOL) mixture
- **IATA** ETHANOL mixture
- **Transport hazard class(es):**
- **DOT**



- **Class:** 3 Flammable liquids
- **Label:** 3

· ADR/ADN



- **Class:** 3 (F1) Flammable liquids
- **Label:** 3

· IMDG, IATA



- **Class:** 3 Flammable liquids
- **Label:** 3
- **Packing group:** II
- **DOT, ADR/ADN, IMDG, IATA** II
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Warning: Flammable liquids
- **Hazard identification number (Kemler code):** 33
- **EMS Number:** F-E,S-D
- **Stowage Category** A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.

(Contd. on page 9)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

· **Transport/Additional information:**

· **DOT**

· **Quantity limitations:**

On passenger aircraft/rail: 5 L

On cargo aircraft only: 60 L

· **ADR/ADN**

· **Excepted quantities (EQ):**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **IMDG**

· **Limited quantities (LQ):**

1L

· **Excepted quantities (EQ):**

Code: E2

Maximum net quantity per inner packaging: 30 ml

Maximum net quantity per outer packaging: 500 ml

· **UN "Model Regulation":**

UN 1170 ETHANOL (ETHYL ALCOHOL) MIXTURE, 3, II

15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**

No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

· **Section 355 (extremely hazardous substances):**

None of the ingredients are listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients are listed.

· **TSCA (Toxic Substances Control Act):**

All components have the value ACTIVE.

· **Hazardous Air Pollutants**

None of the ingredients are listed.

· **California Proposition 65:**

· **Chemicals known to cause cancer:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients are listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients are listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients are listed.

· **New Jersey Right-to-Know List:**

64-17-5 Ethanol

(Contd. on page 10)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

· New Jersey Special Hazardous Substance List:	
64-17-5 Ethanol	CA, MU, TE, F3
· Pennsylvania Right-to-Know List:	
64-17-5 Ethanol	
· Pennsylvania Special Hazardous Substance List:	
None of the ingredients are listed.	
· Carcinogenic categories:	
· EPA (Environmental Protection Agency):	
None of the ingredients are listed.	
· TLV (Threshold Limit Value established by ACGIH):	
64-17-5 Ethanol	A3
· NIOSH-Ca (National Institute for Occupational Safety and Health):	
None of the ingredients are listed.	

· **GHS label elements**

The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms:**



· **Signal word:** Danger

· **Hazard-determining components of labeling:**

Ethanol

· **Hazard statements:**

H225 Highly flammable liquid and vapor.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

· **Precautionary statements:**

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P240 Ground/bond container and receiving equipment.

P241 Use explosion-proof electrical/ventilating/lighting/equipment.

P242 Use only non-sparking tools.

P243 Take precautionary measures against static discharge.

P261 Avoid breathing dust/fume/gas/mist/vapors/spray.

P264 Wash thoroughly after handling.

P271 Use only outdoors or in a well-ventilated area.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P312 Call a poison center/doctor if you feel unwell.

(Contd. on page 11)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Trolox

P337+P313	If eye irritation persists: Get medical advice/attention.
P370+P378	In case of fire: Use CO ₂ , powder or water spray to extinguish.
P403+P233	Store in a well-ventilated place. Keep container tightly closed.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration
 TLV: Threshold Limit Value
 PEL: Permissible Exposure Limit
 REL: Recommended Exposure Limit
 Flammable Liquids 2: Flammable liquids – Category 2
 Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A
 Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

· *** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

1 Identification

- **Product Identifier**
- **Trade Name:** Wash Buffer
- **Product Number:** 806-00065-00
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Kit Component
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Quantum-Si, Inc.
530 Old Whitfield St.
Guilford, CT 06437
860-577-0668
www.quantum-si.com/
- **Emergency telephone number:**
Chemtrec (US and Canada): (800) 424-9300
Chemtrec (Outside US): +1 (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
Aquatic Acute 3 H402 Harmful to aquatic life.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:**
H402 Harmful to aquatic life.
- **Precautionary statements:**
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
2.1 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = *0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

- **Dangerous Components:**

1132-61-2	4-morpholinopropanesulphonic acid ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319; Specific Target Organ Toxicity - Single Exposure 3, H335	≤2.5%
68131-39-5	C12-15 Alcohol Ethoxylate ⚠ Eye Damage 1, H318; ⚠ Aquatic Acute 1, H400; ⚠ Acute Toxicity - Oral 4, H302; ⚠ Skin Irritation 2, H315	≤2.5%

- **Additional information:**

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

4 First-Aid Measures

- **Description of first aid measures**
- **General information:** If symptoms persist, call a physician.
- **After inhalation:** In case of unconsciousness place patient stably in the side position for transportation.
- **After skin contact:**
Wash with soap and water.
Generally, the product does not irritate the skin.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
If eye irritation occurs, consult a doctor.
Rinse opened eye for several minutes under running water.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Dilute with plenty of water.

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Dispose of the collected material according to regulations.

· **Reference to other sections:**

See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

· PAC-1:		
142-72-3	Magnesium Di(Acetate)	26 mg/m ³
127-08-2	Potassium Acetate	9.8 mg/m ³
· PAC-2:		
142-72-3	Magnesium Di(Acetate)	280 mg/m ³
127-08-2	Potassium Acetate	110 mg/m ³
· PAC-3:		
142-72-3	Magnesium Di(Acetate)	1,700 mg/m ³
127-08-2	Potassium Acetate	640 mg/m ³

7 Handling and Storage

· **Handling**

· **Precautions for safe handling:**

Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.

· **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**

· **Storage**

· **Requirements to be met by storerooms and receptacles:** No special requirements.

· **Information about storage in one common storage facility:** Not required.

· **Further information about storage conditions:** None.

· **Specific end use(s):** No further relevant information available.

8 Exposure Controls/Personal Protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters:**

· **Components with occupational exposure limits:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

· **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls:**

· **Personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

Immediately remove all soiled and contaminated clothing and wash before reuse.
Wash hands before breaks and at the end of work.

- **Breathing equipment:** Not required.
- **Protection of hands:**
Protective gloves recommended in manufacturing.



Protective gloves

- **Material of gloves:** Not applicable.
- **Penetration time of glove material:** Not applicable.
- **Eye protection:**



Goggles recommended during refilling.

- **Limitation and supervision of exposure into the environment:** None

9 Physical and Chemical Properties

Information on basic physical and chemical properties

General Information

Appearance:

Form:	Liquid
Color:	Colorless
Odor:	Odorless
Odor threshold:	Not determined.

· **pH-value:** Not determined.

Change in condition

Melting point/Melting range:	Not determined.
Boiling point/Boiling range:	≥100 °C (≥212 °F)

· **Flash point:** None

· **Flammability (solid, gaseous):** Not applicable.

· **Auto igniting:** Not applicable

· **Decomposition temperature:** Not determined.

· **Ignition temperature:** Product is not self-igniting.

· **Danger of explosion:** Product does not present an explosion hazard.

Explosion limits:

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure @ 20 °C (68 °F):** ≤23 hPa (≤17.3 mm Hg)

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

- **Density:** Not determined.
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - Dynamic:** Not determined.
 - Kinematic:** Not determined.
- **Solvent content:**
 - VOC content:** 0.00 %
0.0 g/l / 0.00 lb/gal
 - Solids content:** 3.9 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

68131-39-5 C12-15 Alcohol Ethoxylate

Oral	LD50	500-2,000 mg/kg (Rat)
Dermal	LD50	>2,000 mg/kg (Rat)
Inhalative	LC50/4 h	>20 mg/l (Rat)

- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** Irritating effect.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

· **Carcinogenic categories:**

· **IARC (International Agency for Research on Cancer):**

None of the ingredients are listed.

· **NTP (National Toxicology Program):**

None of the ingredients are listed.

· **OSHA-Ca (Occupational Safety & Health Administration):**

None of the ingredients are listed.

12 Ecological Information

· **Toxicity:**

· **Aquatic toxicity:**

Avoid release into the environment. Runoff from fire control or dilution water may cause pollution.

68131-39-5 C12-15 Alcohol Ethoxylate

EC50 1 mg/l (Daphnia)

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Ecotoxicological effects:**

· **Remark:** Harmful to fish

· **Additional ecological information:**

· **General notes:**

Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.

Harmful to aquatic organisms

· **Results of PBT and vPvB assessment:**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

· **Waste treatment methods**

· **Recommendation:**

Observe all federal, state and local environmental regulations when disposing of this material.

· **Uncleaned packaging**

· **Recommendation:** Disposal must be made according to official regulations.

· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport Information

· **UN-Number:**

· **DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

· **UN proper shipping name:**

· **DOT, ADR/ADN, IMDG, IATA**

Non-Regulated Material

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

15 Regulatory Information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.

· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.

· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.

· Hazardous Air Pollutants
None of the ingredients are listed.

· California Proposition 65:
None of the ingredients are listed.

· Chemicals known to cause cancer:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.

· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.

· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.

· New Jersey Right-to-Know List:
None of the ingredients are listed.

· New Jersey Special Hazardous Substance List:
None of the ingredients are listed.

· Pennsylvania Right-to-Know List:
None of the ingredients are listed.

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

· Pennsylvania Special Hazardous Substance List:
None of the ingredients are listed.
· Carcinogenic categories:
· EPA (Environmental Protection Agency):
None of the ingredients are listed.
· TLV (Threshold Limit Value established by ACGIH):
None of the ingredients are listed.
· NIOSH-Ca (National Institute for Occupational Safety and Health):
None of the ingredients are listed.
· GHS label elements
The product is classified and labeled according to the Globally Harmonized System (GHS).
· Hazard pictograms: Non-Regulated Material
· Signal word: Non-Regulated Material
· Hazard statements:
H402 Harmful to aquatic life.
· Precautionary statements:
P273 Avoid release to the environment.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.
· National regulations:
The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Abbreviations and acronyms:**

- ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
- ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- EINECS: European Inventory of Existing Commercial Chemical Substances
- ELINCS: European List of Notified Chemical Substances
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety and Health
- OSHA: Occupational Safety & Health Administration

(Contd. on page 9)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: Wash Buffer

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Acute Toxicity - Oral 4: Acute toxicity – Category 4

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Damage 1: Serious eye damage/eye irritation – Category 1

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Acute 3: Hazardous to the aquatic environment - acute aquatic hazard – Category 3

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

* 1 Identification

- **Product Identifier**
- **Trade Name:** COT
- **Product Number:** 806-00062-00
- **Relevant identified uses of the substance or mixture and uses advised against:**
- **Product Description:** Kit Component
- **Details of the Supplier of the Safety Data Sheet:**
- **Manufacturer/Supplier:**
Quantum-Si, Inc.
530 Old Whitfield St.
Guilford, CT 06437
860-577-0668
www.quantum-si.com/
- **Emergency telephone number:**
Chemtrec (US and Canada): (800) 424-9300
Chemtrec (Outside US): +1 (703) 527-3887 (Collect calls accepted)

2 Hazard(s) Identification

- **Classification of the substance or mixture:**
The product does not need classification according to OSHA HazCom Standard 29 CFR paragraph (d) of §1910.1200(g) and GHS Rev 03.
- **Label elements:**
- **Hazard pictograms:** Non-Regulated Material
- **Signal word:** Non-Regulated Material
- **Hazard statements:** Non-Regulated Material
- **Unknown acute toxicity:**
This value refers to knowledge of known, established toxicological or ecotoxicological values.
0 % of the mixture consists of component(s) of unknown toxicity.
- **Classification system:** NFPA/HMIS Definitions: 0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme
- **NFPA ratings (scale 0 - 4)**



- **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Physical Hazard = 0

- **Hazard(s) not otherwise classified (HNOC):** None known

* 3 Composition/Information on Ingredients

- **Chemical characterization: Substance**
- **Description:** Mixture of substances listed below with non-hazardous additions.

(Contd. on page 2)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

Dangerous Components:

CAS: 629-20-9	cyclooctatetraene	≤2.5%
RTECS: GY 0175600	⚠ Flammable Liquids 2, H225; ⚠ Acute Toxicity - Oral 3, H301; ⚠ Skin Irritation 2, H315; Eye Irritation 2A, H319	

Additional information:

The exact percentages of the ingredients of this mixture are considered to be proprietary and are withheld in accordance with the provisions of paragraph (i) of §1910.1200 of 29 CFR 1910.1200 Trade Secrets.

* 4 First-Aid Measures

Description of first aid measures

- **General information:** If symptoms persist, call a physician.
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:**
Wash with soap and water.
Generally, the product does not irritate the skin.
If skin irritation occurs, consult a doctor.
- **After eye contact:**
Rinse opened eye for several minutes under running water.
If eye irritation occurs, consult a doctor.
- **After swallowing:** If swallowed and symptoms occur, consult a doctor.
- **Information for doctor**
- **Most important symptoms and effects, both acute and delayed:** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-Fighting Measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **For safety reasons unsuitable extinguishing agents:** No further relevant information.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Advice for firefighters**
- **Special protective equipment for firefighters:**
As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent) and full protective gear to prevent contact with skin and eyes.

* 6 Accidental Release Measures

- **Personal precautions, protective equipment and emergency procedures:** Not required.
- **Environmental precautions:** Dilute with plenty of water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (i.e. sand, diatomite, acid binders, universal binders, sawdust).
Dispose of the collected material according to regulations.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

(Contd. on page 3)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

· **PAC-1:**

All components have the value 65,000 ppm.

· **PAC-2:**

All components have the value 2.30E+05 ppm.

· **PAC-3:**

All components have the value 4.00E+05 ppm.

* 7 Handling and Storage

· **Handling**

- **Precautions for safe handling:** No special precautions are necessary if used correctly.
- **Information about protection against explosions and fires:** No special measures required.

· **Conditions for safe storage, including any incompatibilities**

· **Storage**

- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.
- **Specific end use(s):** No further relevant information available.

* 8 Exposure Controls/Personal Protection

- **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters:**

· **Components with occupational exposure limits:**

The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- **Additional information:** The lists that were valid during the creation of this SDS were used as basis.

· **Exposure controls:**

· **Personal protective equipment**

· **General protective and hygienic measures:**

The usual precautionary measures for handling chemicals should be followed.
Wash hands before breaks and at the end of work.

- **Breathing equipment:** Not required.

- **Protection of hands:** Protective gloves recommended in manufacturing.

- **Material of gloves:** Not applicable.

- **Penetration time of glove material:** Not applicable.

- **Eye protection:** Not required.

- **Limitation and supervision of exposure into the environment:** None

* 9 Physical and Chemical Properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form: Liquid
Color: Yellow

(Contd. on page 4)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

- **Odor:** Odorless
- **Odor threshold:** Not determined.
- **pH-value:** 7.5
- **Change in condition**
 - **Melting point/Melting range:** Not determined.
 - **Boiling point/Boiling range:** Not determined.
- **Flash point:** None
- **Flammability (solid, gaseous):** Not applicable.
- **Auto igniting:** Not applicable
- **Decomposition temperature:** Not determined.
- **Ignition temperature:** Product is not self-igniting.
- **Danger of explosion:** Product does not present an explosion hazard.
- **Explosion limits:**
 - **Lower:** Not determined.
 - **Upper:** Not determined.
- **Vapor pressure:** Not determined.
- **Density @ 20 °C (68 °F):** 1 g/cm³ (8.345 lbs/gal)
- **Relative density:** Not determined.
- **Vapor density:** Not determined.
- **Evaporation rate:** Not determined.
- **Solubility in / Miscibility with:**
 - **Water:** Fully miscible.
- **Partition coefficient (n-octanol/water):** Not determined.
- **Viscosity:**
 - **Dynamic:** Not determined.
 - **Kinematic:** Not determined.
- **Solvent content:**
 - **VOC content:** 0.00 %
- **Other information:** No further relevant information available.

10 Stability and Reactivity

- **Reactivity:** No further relevant information available.
- **Chemical stability:** Product is stable under normal conditions.
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

(Contd. on page 5)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

* 11 Toxicological Information

- **Information on toxicological effects:**
- **Acute toxicity:**
- **LD/LC50 values that are relevant for classification:** No data available.
- **Primary irritant effect:**
- **On the skin:** No irritating effect.
- **On the eye:** No irritating effect.
- **Additional toxicological information:**
- **Carcinogenic categories:**

· IARC (International Agency for Research on Cancer):
--

None of the ingredients are listed.

· NTP (National Toxicology Program):

None of the ingredients are listed.

· OSHA-Ca (Occupational Safety & Health Administration):

None of the ingredients are listed.

* 12 Ecological Information

- **Toxicity:**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Do not allow undiluted product or product that has not been neutralized to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment:**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal Considerations

- **Waste treatment methods**
- **Recommendation:**
Observe all federal, state and local environmental regulations when disposing of this material.
- **Uncleaned packaging**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

(Contd. on page 6)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

14 Transport Information

- **UN-Number:** Non-Regulated Material
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **UN proper shipping name:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Transport hazard class(es):**
- **DOT, ADR/ADN, ADN, IMDG, IATA**
- **Class:** Non-Regulated Material
- **Packing group:**
- **DOT, ADR/ADN, IMDG, IATA** Non-Regulated Material
- **Environmental hazards:** Not applicable.
- **Special precautions for user:** Not applicable.
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:** Not applicable.
- **UN "Model Regulation":** Non-Regulated Material

***15 Regulatory Information**

· **Safety, health and environmental regulations/legislation specific for the substance or mixture:**
No further relevant information available.

· **SARA (Superfund Amendments and Reauthorization):**

· Section 355 (extremely hazardous substances):
None of the ingredients are listed.
· Section 313 (Specific toxic chemical listings):
None of the ingredients are listed.
· TSCA (Toxic Substances Control Act):
All components have the value ACTIVE.
· Hazardous Air Pollutants
None of the ingredients are listed.
· California Proposition 65:
· Chemicals known to cause cancer:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for females:
None of the ingredients are listed.
· Chemicals known to cause reproductive toxicity for males:
None of the ingredients are listed.
· Chemicals known to cause developmental toxicity:
None of the ingredients are listed.
· New Jersey Right-to-Know List:
All ingredients are listed.

(Contd. on page 7)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

· New Jersey Special Hazardous Substance List:	
629-20-9 cyclooctatetraene	F3
· Pennsylvania Right-to-Know List:	
None of the ingredients are listed.	
· Pennsylvania Special Hazardous Substance List:	
None of the ingredients are listed.	
· Carcinogenic categories:	
· EPA (Environmental Protection Agency):	
None of the ingredients are listed.	
· TLV (Threshold Limit Value established by ACGIH):	
None of the ingredients are listed.	
· NIOSH-Ca (National Institute for Occupational Safety and Health):	
None of the ingredients are listed.	
· GHS label elements Non-Regulated Material	
· Hazard pictograms: Non-Regulated Material	
· Signal word: Non-Regulated Material	
· Hazard statements: Non-Regulated Material	
· National regulations:	
The product is not subject to be labelled according with the prevailing version of the regulations on hazardous substances.	
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.	

16 Other Information

The information and recommendations in this safety data sheet are, to the best of our knowledge, accurate as of the date of issue. Nothing herein shall be deemed to create warranty, expressed or implied, and shall not establish a legally valid contractual relationship. It is the responsibility of the user to determine applicability of this information and the suitability of the material or product for any particular purpose.

· **Contact:**

· **Abbreviations and acronyms:**

ADR: The European Agreement concerning the International Carriage of Dangerous Goods by Road
 ADN: The European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
 IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 HMIS: Hazardous Materials Identification System (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent
 PBT: Persistent, Bioaccumulative and Toxic
 vPvB: very Persistent and very Bioaccumulative
 NIOSH: National Institute for Occupational Safety and Health
 OSHA: Occupational Safety & Health Administration

(Contd. on page 8)

Safety Data Sheet (SDS)

OSHA HazCom Standard 29 CFR 1910.1200(g) revised in 2012 and GHS Rev 03.

Issue date 01/16/2024

Reviewed on 01/14/2024

Trade Name: COT

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Liquids 2: Flammable liquids – Category 2

Acute Toxicity - Oral 3: Acute toxicity – Category 3

Skin Irritation 2: Skin corrosion/irritation – Category 2

Eye Irritation 2A: Serious eye damage/eye irritation – Category 2A

*** Data compared to the previous version altered.**

SDS created by MSDS Authoring Services www.msdsauthoring.com +1-877-204-9106

SAFETY DATA SHEET

This document is in compliance with requirements for Safety Data Sheets implemented under U.S. Federal Occupational Safety and Health Administration Hazard Communication Standard (29 CFR 1910.1200, as updated in 2024 and equivalent State Standards), guidelines from the United Nations Globally Harmonized System of Classification of Chemicals (GHS), the Canadian Workplace Hazardous Materials Information System (WHMIS) and Hazardous Products Regulations (HPR), and the European Union regulation on the Classification, Labelling and Packaging of Substances and Mixtures (EC No. 1272/2008, EU 2020/878, EU 2024/2865). See section 16 for more information on national regulations.

SECTION 1: IDENTIFICATION

1.1 PRODUCT IDENTIFICATION

- **PRODUCT NAME:** CHIP ASSEMBLY BAGGED Q9001 2M G2 PRODUCT (POR V4 ALD-HFO2 PICOSUN)
- **PRODUCT CODE:** 850-10009-08

1.2 PRODUCT USE AND RESTRICTIONS

- **IDENTIFIED USE:** Kit component for protein sequencing process.
- **USES ADVISED AGAINST:** Procedures not related to the intended use of this product.
- **IDENTIFIED USERS:** For sale to, use, and storage by personnel trained in handling product safely.

1.3 MANUFACTURER INFORMATION

- **MANUFACTURER/SUPPLIER:** Quantum SI, Inc.
- **ADDRESS:** 29 Business Park Dr., Suite C; Branford, CT; 06405
- **BUSINESS PHONE:** 866-688-7374 (8:00 am to 5:00 pm, Eastern Standard Time)
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300
Outside US): +1-703- 527-3887
- **Email:** support@quantum-si.com

1.4 CANADIAN DISTRIBUTOR INFORMATION

- **DISTRIBUTOR:** VWR International Co.
- **ADDRESS:** 6040 Cantay Road; Mississauga, Ontario; Canada L5R 4J2
- **BUSINESS PHONE:** 1-800-932-5000
- **EMERGENCY PHONE:** +1- Chemtrec (US and Canada): +1-800-424-9300

SECTION 2: HAZARD IDENTIFICATION

2.1 HAZARD CLASSIFICATION (US OSHA, CANADIAN WHMIS, and EU CLP)

- Not classified as hazardous under pertinent national standards.

2.2 LABEL ELEMENTS (US OSHA, CANADIAN WHMIS, and EU CLP)

- **Hazard Pictograms:** Not applicable.
- **Signal Word:** Not applicable.
- **Hazard Statements:** Not applicable.
- **Precautionary Statements:** Not applicable.

2.3 OTHER PERTINENT DATA ON HEALTH, PHYSICAL, AND ENVIRONMENTAL HAZARDS

- **Contains no material classified as follows:** Endocrine disrupting properties: In relation to human health and in relation to the environment (ED). Persistent, Bioaccumulative and Toxic (PBT); Very persistent and very bioaccumulative (vPvB); Persistent, mobile, and toxic (PMT) Very persistent and very mobile (vPvM).

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

3.1 IDENTIFICATION OF HAZARDOUS SUBSTANCES IN PRODUCT

NAME	CAS NUMBER	GHS CLASSIFICATION COMPONENT	HAZARD FOR	% (w/w)
Not classified as hazardous under pertinent national standards.				100%

SECTION 4: FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

- BASIC FIRST AID BY EXPOSURE ROUTE:**

AREA EXPOSED TREATMENT

Eye Contact: Not reasonably anticipated to be a route of exposure.

Skin Contact: Flush area with warm, running water for several minutes if there are concerns about skin contact.

Inhalation: Obtain fresh air. Seek medical attention if irritation develops after exposure ends.

Ingestion: If conscious only: Rinse mouth with water. Do not induce vomiting. Contact a Poison Control Center or physician for instructions.

Cuts from Broken Chip Rinse wound under running water, remove visible fragments with tweezers if safe to do so. Apply gentle pressure to stop bleeding, then bandage. If fragment remains embedded, do not attempt to remove; seek medical attention.

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

- ACUTE HEALTH EFFECTS:**

AREA EXPOSED EFFECTS

Eye Contact: Not reasonably anticipated to be a route of exposure.

Skin Contact: Not anticipated to cause irritation or other skin effects.

Inhalation: Not reasonably anticipated to be a route of exposure.

Ingestion: Not reasonably anticipated to be a route of exposure.

- CHRONIC HEALTH EFFECTS:** None known.

- TARGET ORGANS:** None known.

4.3 INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

- GENERAL INFORMATION: For all exposures:** In case of accident, or if you feel unwell, seek medical advice immediately. Take this document and a copy of the label to the healthcare professional.

- RECOMMENDATIONS TO PHYSICIANS:** Treat symptomatically.

- MEDICAL CONDITIONS AGGRAVATED BY OVEREXPOSURE:** None known.

SECTION 5: FIREFIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

- RECOMMENDED FIRE EXTINGUISHING MEDIA:** Water Spray, Dry Powder, Foam, Carbon Dioxide, or any other type.

- UNSUITABLE FIRE EXTINGUISHING MEDIA:** None.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

- NFPA FLAMMABILITY CLASSIFICATION:**

NFPA Rating:



NFPA Hazard Classification: Not classified.

5.3 UNUSUAL HAZARDS IN FIRE SITUATIONS

POTENTIAL HAZARD

DESCRIPTION FOR PRODUCT

QUANTUM SI™

Decomposition:

Generates irritating vapors, carbon monoxide, carbon dioxide, and other products of decomposition.

Incompatibilities:

None known.

Explosion Sensitivity to Mechanical Impact:

Not applicable.

Explosion Sensitivity to Static Discharge:

Explosion Sensitivity to Static Discharge:

Not applicable.

SECTION 5: FIREFIGHTING MEASURES

5.4 **ADVICE FOR FIREFIGHTERS**

- Self-Contained Breathing Apparatus and full protective equipment for fire response should be worn in any situation. Move containers from fire area if it can be done without risk to personnel. Otherwise, use water spray to keep fire-exposed containers cool.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 **PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES**

- **RESPONSE TO INCIDENTAL RELEASES:** Handle spilled chips wearing gloves and safety glasses.
- **RESPONSE TO NON-INCIDENTAL RELEASES:** Personnel can follow the instructions for incidental releases.
- **RESPONSE PROCEDURES FOR ANY RELEASE:** In the event that the chips break, sweep or wipe up broken bits carefully.
- **SPECIAL NOTE:** Prior to response, determine if the chip or adjacent materials contain hazardous reagents. Though this product is not hazardous, the reagents used for protein sequencing can be. Follow the instructions indicated for spill response described on the Safety Data Sheets for reagents involved in the spill incident.

6.2 **ENVIRONMENTAL PRECAUTIONS**

- While the chip itself is generally inert, broken bits can be sharp. Handle debris with appropriate tools, not bare hands, to prevent cuts.

6.3 **METHODS AND MATERIALS FOR CONTAINMENT AND CLEAN-UP**

- **SPILL RESPONSE EQUIPMENT:** Broom/dustpan if chips are broken. Appropriate waste container.

6.4 **REFERENCE TO OTHER SECTIONS**

- See Section 8 (Exposure Controls/Personal Protection) for personal protective equipment recommendations.
- See Section 13 (Disposal Recommendations) for information on waste disposal.

SECTION 7: HANDLING AND STORAGE

7.1 **PRECAUTIONS FOR SAFE HANDLING**

- **HYGIENE PRACTICES:** The product is used in conjunction with a protein-sequencing kit. Therefore, follow good chemical hygiene practices associated with laboratory practices.
- **HANDLING PRACTICES:** Employees must be appropriately trained to use this product safely as needed. Always handle chips with clean gloves, preferably powder-free nitrile, or latex, to prevent contamination of the chip surface or contact pads. Avoid flexing, dropping, or applying mechanical stress. Return unused chips to their original packaging and seal tightly after use.

7.2 **CONDITIONS FOR SAFE STORAGE**

- **STORAGE PRACTICES:** Store containers away from direct sunlight and sources of intense heat. Store chips at room temperature (15°C to 25°C; 59°F to 77°F). Store chips in dry environment, preferably with relative humidity below 60%.
- **INCOMPATIBILITIES:** See Section 10 (Stability and Reactivity).

7.3 **SPECIFIC END USES**

- This product is for use in protein sequencing processes by trained laboratory personnel.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 **CONTROL PARAMETERS**

- **AIRBORNE EXPOSURE LIMITS:** No airborne occupational exposure limits have been established.
- **BIOLOGICAL OCCUPATIONAL EXPOSURE LIMITS:** None established.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION (Continued)

- **DERIVED NO EFFECTS LEVEL:** Not established.
- **PREDICTED NO EFFECT CONCENTRATION:** Not established.

8.2 EXPOSURE CONTROLS

- **GENERAL GUIDELINES:** This product is intended for use by trained personnel as part of a kit.
- **ENGINEERING CONTROLS:** Ensure the area has adequate ventilation for safe use with the protein sequencing kit. Eye wash stations and safety showers should be readily available.
- **RESPIRATORY PROTECTION:** None needed under normal circumstances of use.
- **HAND PROTECTION:** Nitrile or latex recommended, to protect the surface of the chip. Neoprene or nitrile gloves are recommended if skin contact can occur (e.g., spill clean-up). Ensure gloves are intact prior to use.
- **EYE PROTECTION:** Safety glasses are recommended if splash or spray can occur during use of the chip or if a spill has occurred.
- **BODY PROTECTION:** Body protection suitable to task is recommended (e.g., laboratory coat).
- **OTHER PROTECTIVE MEASURES:** Wash hands during breaks and at the end of handling the material. Immediately remove any contaminated clothing.

8.3 ENVIRONMENTAL EXPOSURE CONTROLS

- Use product according to manufacturer instructions.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

- **APPEARANCE AND DISTINGUISHING CHARACTERISTICS:**

<u>PROPERTY</u>	<u>DATA</u>
State:	Solid
Color:	Opaque
Odor:	Odorless
Odor Threshold:	Not determined
pH:	Not determined

- **PHYSICAL DATA:**

<u>PROPERTY</u>	<u>DATA</u>
Melting Point/Freezing Point:	Not determined.
Initial Boiling Point/Boiling Range:	Not determined
Flash Point:	Not applicable.
Evaporation Rate (Water = 1):	Not applicable.
Flammability:	Not applicable.
Upper/Lower Explosion Limits	Not applicable.
Vapor Pressure:	Not applicable.
Vapor Density	Not applicable.
Relative Density at 20 °C (68 °F)	Not determined.
Solubility:	Insoluble
Partition Coefficient/n-octanol/water:	Not applicable.
Autoignition Temperature:	Not applicable.
Decomposition Temperature:	Not applicable.
Kinematic Viscosity:	Not applicable.
Particle Characteristics:	Solid-state chip.

9.2 INFORMATION RELEVANT TO PHYSICAL HAZARD CLASSIFICATION

- **Information regarding Physical Hazard Classes** This product is not classified under any physical hazard class.
- **Other Safety Characteristics** Not applicable

SECTION 10: STABILITY AND REACTIVITY

10.1 REACTIVITY AND CHEMICAL STABILITY

- The product is not reactive under typical conditions of use or handling.
- Normally stable under standard temperatures and pressures.

10.2 POSSIBILITY OF HAZARDOUS REACTIONS (INCLUDING THOSE ASSOCIATED WITH FORESEEABLE EMERGENCY)

- Product is not self-reactive, water-reactive, or air-reactive; it will not undergo hazardous polymerization.

10.3 CONDITIONS TO AVOID

- Avoid contact with incompatible chemicals and adverse storage conditions.

10.4 INCOMPATIBLE MATERIALS

- None known.

10.5 HAZARDOUS DECOMPOSITION PRODUCTS

- Products of thermal decomposition include carbon monoxide and carbon dioxide.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON ACUTE TOXICITY

- **PRODUCT TOXICOLOGY DATA:** Not classified as having acute toxicity.:
- **DEGREE OF IRRITATION:** This product is not classified as causing skin or eye irritation.
- **SENSITIZATION:** This product does not contain any compound reported to as a skin or respiratory sensitizer.
- **REVIEW OF ACUTE SYMPTOMS AND EFFECTS BY ROUTE OF EXPOSURE:** See Section 2 (Hazard Information) and Section 4 (First-Aid Measures) for additional details.
 - o **Eyes:** Not reasonably anticipated to be a route of exposure.
 - o **Skin:** Not anticipated to cause irritation or other skin effects.
 - o **Inhalation** Not reasonably anticipated to be a route of exposure.
 - o **Ingestion:** Not reasonably anticipated to be a route of exposure.

11.2 INFORMATION ON CHRONIC TOXICITY

- **CARCINOGENICITY STATUS:** This product is not listed as a carcinogen by NTP, IARC, or OSHA.
- **REPRODUCTIVE TOXICITY INFORMATION:** Not applicable.
- **MUTAGENIC EFFECTS** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - SINGLE EXPOSURE:** Not applicable.
- **SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE:** Not applicable.
- **ASPIRATION HAZARD:** Not applicable.

11.3 OTHER USEFUL TOXICOLOGY INFORMATION

- **ENDOCRINE-DISRUPTING PROPERTIES:** Not applicable.
- **TOXICOLOGICALLY SYNERGISTIC PRODUCTS:** None known.
- **ADDITIONAL TOXICOLOGY:** Not applicable.

SECTION 12: ECOLOGICAL INFORMATION

12.1 ENVIRONMENTAL TOXICITY

- This product is not anticipated to be harmful to the environment.

12.2 PERSISTENCE AND DEGRADABILITY

- The solid-state components will persist in the environment but are not anticipated to cause environmental effects.

12.3 BIOACCUMULATIVE POTENTIAL

- This product is not anticipated to bioaccumulate significantly.

SECTION 12: ECOLOGICAL INFORMATION (Continued)

12.4 MOBILITY IN SOIL

- This product will not be mobile in soil.

12.5 RESULTS OF PBT AND vPvB ASSESSMENT

- Not classified as PBT or vPvB.

12.6 ENDOCRINE DISRUPTING PROPERTIES

- None reported.

12.7 OTHER ADVERSE ENVIRONMENTAL EFFECTS

- None reported.

SECTION 13: DISPOSAL CONSIDERATION

13.1 WASTE TREATMENT METHODS

- Dispose of in accordance with local, state, and national regulations.

13.2 DISPOSAL CONSIDERATIONS

- **EPA RCRA WASTE CODE:** Not applicable to wastes consisting only of this product.
- **SEWAGE DISPOSAL:** Not anticipated to be a route of disposal.

13.3 DISPOSITION OF USED CHIPS

- Follow federal, state, and local regulations for the disposal associated with products associated with laboratory equipment used in protein sequencing.

SECTION 14: TRANSPORT INFORMATION

14.1 HAZARDOUS MATERIALS TRANSPORTATION REGULATIONS

- **DEPARTMENT OF TRANSPORTATION HAZARDOUS MATERIALS SHIPPING REGULATIONS:**

UN/NA Number	Proper Shipping Name	Packing Group	Hazard Class	Label	North American Emergency Response Guide #	Marine Pollutant Status
NOT REGULATED AS DANGEROUS GOODS FOR TRANSPORTATION						

- **CANADIAN TRANSPORTATION INFORMATION:** This product is not regulated by Transport Canada as a dangerous good.
- **EUROPEAN TRANSPORT CLASSIFICATION BY ROAD (ADR)/RAIL (RID):** Product is not regulated as a dangerous good.
- **IATA DESIGNATION:** Product is not regulated as a dangerous good by the International Air Transport Association.
- **IMO DESIGNATION:** Product is not regulated as a dangerous good by the International Maritime Organization.

14.2 ENVIRONMENTAL HAZARDS

- None known.

14.3 SPECIAL PRECAUTIONS FOR TRANSPORTERS

- None established.

14.4 TRANSPORT IN BULK

- **ACCORDING TO ANNEX II OF MARPOL 73/78 AND THE IBC CODE:** Not applicable.

SECTION 15: REGULATORY INFORMATION

15.1 OTHER IMPORTANT U.S. SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **US TOXICITY SUBSTANCES CONTROL INVENTORY:** The components of this product are listed.
- **U.S. SARA THRESHOLD PLANNING QUANTITY:** Not applicable.
- **U.S. SARA HAZARD CATEGORIES (SECTION 311/312, 40 CFR 370-21):** Not applicable.
- **U.S. CERCLA REPORTABLE QUANTITY (RQ):** Not applicable to the product, based on composition and volume.
- **U.S. SARA TITLE 313:** This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313
- **US CLEAN AIR ACT (SECTION 112r):** Not applicable.

15.2 OTHER IMPORTANT U.S. STATE REGULATIONS FOR COMPONENTS

- **CALIFORNIA SAFE DRINKING WATER ACT (PROPOSITION 65) STATUS:** Not applicable.
- **NEW JERSEY RIGHT TO KNOW LIST HAZARDOUS SUBSTANCES LIST:** No product ingredient is listed.
- **NEW JERSEY ENVIRONMENTAL SUBSTANCES LIST:** No product ingredient is listed.
- **PENNSYLVANIA RIGHT-TO-KNOW LIST:** No product ingredient is listed.

15.3 CANADIAN AND EU SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS

- **ADDITIONAL WHMIS INFORMATION:** This SDS contains all the required elements under the Canadian Hazardous Products Regulations (SOR 2022-272).
- **CANADIAN DSL/NDL INVENTORY STATUS:** All components of this product are listed or exempted.
- **CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LISTS:** The components of this product are not on the CEPA Priority Substances Lists.
- **E.U. REACH:** Contains no substance on the REACH candidate list. Contains no REACH Annex XIV substances. REACH (1907/2006). Contains no substance with REACH Restrictions.

15.4 CHEMICAL SAFETY ASSESSMENT

- **ASSESSMENT INFORMATION:** No chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

16.1 INDICATION OF CHANGE

- **DATE OF PREPARATION:** August 18, 2025
- **SUPERCEDES:** Not applicable.
- **CHANGE INDICATED:** New product.

16.2 HAZARDOUS MATERIALS SYSTEM RATING

Health	0	<i>(Personal Protective Equipment Rating: Occupational Use situations: Refer to section 8 for guidance on the selection of personal production.</i>
Flammability	0	
Physical Hazard	0	
Protective Equipment	*	

16.3 DEFINITIONS

SECTION	EXPLANATION OF TERMS/ABBREVIATIONS
ALL	OSHA: U.S. Federal Occupational Safety and Health Administration. <u>WHMIS</u> : Canadian Workplace Hazardous Materials Standard. <u>GHS</u> : Globally Harmonized System of Classification of Chemical Substances. <u>HCS</u> : Hazard Communication Standard (U.S.). <u>HPR</u> : Hazardous Products Regulations (Canada). <u>EU</u> : European Union. <u>CLP</u> : Union Classification, Labelling and Packaging of Substances and Mixtures
3	<u>CAS Number</u> : Chemical Abstract Service Number, used by the American Chemical Society to uniquely identify a chemical.

SECTION EXPLANATION OF TERMS/ABBREVIATIONS

5 **NFPA:** National Fire Protection Association. **NFPA FLAMMABILITY CLASSIFICATION:** The NFPA uses the flash point (Fl.P.) and boiling point (BP) to classify flammable or combustible liquids. Class IA: Fl.P. below 73°F and BP below 100°F. Class IB: Fl.P. below 73°F and BP at or above 100°F. Class IC: Fl.P. at or above 73°F and BP at or above 100°F. Class II: Fl.P. at or above 100°F and below 140°F. Class IIIA: Fl.P. at or above 140°F and below 200°F. Class IIIB: Fl.P. at or above 200°F. **NFPA HAZARDOUS MATERIALS RATING:** This is a rating system used to summarize physical and health hazards to firefighters Blue = Health hazard; Red = Fire Hazard; Yellow = Reactivity Hazard. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.

SECTION 16: OTHER INFORMATION (Continued)

- 8** **ACGIH:** American Conference of Government Industrial Hygienists; **TWA:** Time-Weighted Average (over an 8-hour workday); **STEL:** Short-Term Exposure Limit (15-minute average, no more than 4 times daily and each exposure separated by one hour minimally); **C:** Ceiling Limit (concentration not to be exceeded in a work environment). **PEL:** Permissible Exposure Limit. **NIOSH:** National Institute of Occupational Safety and Health; **REL:** Recommended Exposure Limit; **IDLH:** Immediately Dangerous to Life and Health **ppm:** Parts per Million. **mg/m³:** Milligrams per cubic meter. **BEI:** Biological Exposure Limit. **MAK:** Maximum Concentration Values in the Workplace; **AIHA WEEL:** AIHA WEEL - American Industrial Hygiene Association Workplace Environment Exposure Levels; **OEL:** Occupational Exposure Limit.
- 9** **pH:** Scale (0 to 14) used to rate the acidity or alkalinity of aqueous solutions. For example, a pH value of 0 indicates a strongly acidic solution, a pH value of 7 indicates a neutral solution, and a pH value of 14 indicates an extremely basic solution. **FLASH POINT:** Temperature at which a liquid generates enough flammable vapors so that ignition may occur. **AUTOIGNITION TEMPERATURE:** Temperature at which spontaneous ignition occurs. **LOWER EXPLOSIVE LIMIT (LEL):** The minimal concentration of flammable vapors in air which will sustain ignition. **UPPER EXPLOSIVE LIMIT (UEL):** The maximum concentration of flammable vapors in air which will sustain ignition.
- 11** **CARCINOGENICITY STATUS:** **NTP:** National Toxicology Program. **IARC:** International Agency for Research on Cancer. **TOXICOLOGY DATA:** **LD_{xx}** or **LC_{xx}:** The Lethal Dose or Lethal Concentration of a substance which will be fatal to a given percentage (xx) of exposed test animals by the designate route of administration. This value is used to assess the toxicity of chemical substances to humans. **TD_{xx}** or **TC_{xx}:** The Toxic Dose or Toxic Concentration of a substance which will cause an adverse effect to a given percentage (xx) of exposed test animals by the designate route of administration.
- 12** **EC₅₀:** Effect Concentration. **PBT** or **vPvB:** Persistent/ Bioaccumulative /Toxic; Very Persistent/ Very Bioaccumulative
- 13** **RCRA:** Resource Conservation and Recovery Act. The regulations promulgated under this act under Act are found in 40 CFR, Sections 260 ff, and define the requirements of hazardous waste generation, transport, treatment, storage, and disposal. **EPA RCRA Waste Codes:** Defined in 40 CFR Section 261.
- 15** **CERCLA:** Comprehensive Environmental Response, Compensation, and Liability Act. **SARA:** Superfund Amendments and Reauthorization Act. **TSCA:** Toxic Substances Control Act. **DSL/NDL:** Domestic Substances List/Non-Domestic Substances List. **REACH:** European Union regulation concerning the Registration, Evaluation, Authorization, and Restriction of Chemicals.
- 16** **HAZARDOUS MATERIALS IDENTIFICATION SYSTEM RATING:** This is a rating system used by industry to summarize physical and health hazards to chemical users and was originally developed by the National Paint and Coating Association. 0 = No Significant Hazard. 1 = Slight Hazard. 2 = Moderate Hazard. 3 = Severe Hazard. 4 = Extreme Hazard.