RESEARCH INTERNATIONAL

SAFETY DATA SHEET

1. IDENTIFICATION

Product Name:	QuikTest™ BioScreen Suspicious Powder Screening Test Kit
Product Type:	BCA Protein Assay Reagent B; Micro BCA Reagent C; BCA Reagent B
CAS Number:	Not applicable
Catalog Number:	1670-0350-02
Chemical Formula:	Not applicable
Details of the supplier of the safety data sheet:	Research International, Inc. 17161 Beaton Road S.E. Monroe, Washington 98272-1034, USA
Telephone:	01-800-927-7831
Emergency Telephone:	01-206-724-7905
Relevant identified uses of the substance and uses advised against:	Not applicable

2. HAZARD(S) IDENTIFICATION

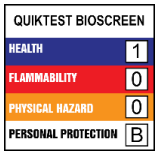
Hazard Classification: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of this product.

NFPA Rating:

Health:	1
Flammability:	0
Reactivity:	0
Physical Hazards:	0

HMIS Rating:

Health:	1
Flammability:	0
Reactivity:	0
Personal protection:	B



Signal Word:	No signal word
Hazard Statements:	No known significant effects or critical hazards
Precautionary Statements:	
Prevention	Not applicable
Response	Not applicable
Storage	Not applicable
Disposal	Not applicable
Hazards not otherwise classified	None known

3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture	Mixture
Other Means of Identification	BCA Protein Assay Reagent B; Micro BCA Reagent C; BCA Reagent B
Hazards Not Otherwise Classified	None known

Component	CAS no.	Weight %
Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)	7758-99-8	3 - 5

Any concentration shown as a range is to protect confidentiality or is due to batch variation.
There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.
Occupational exposure limits, if available, are listed in Section 8.

4. FIRST AID MEASURES

Eye Contact:	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur.
Skin Contact:	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Ingestion:	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

Most important symptoms and effects, acute and delayed
Potential acute health effects

Eye Contact:	No known significant effects or critical hazards
Inhalation:	No known significant effects or critical hazards
Skin Contact:	No known significant effects or critical hazards
Ingestion:	No known significant effects or critical hazards

Over-Exposure Signs/Symptoms

Eye Contact:	No specific data
Inhalation:	No specific data
Skin Contact:	No specific data
Ingestion:	No specific data

Indication of Immediate Medical Attention and Special Treatment Needed, if Necessary

Notes to Physician	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
Specific Treatments	No specific treatment.
Protection of First-Aiders	No action shall be taken involving any personal risk or without suitable training.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use an extinguishing agent suitable for the surrounding fire
Unsuitable Extinguishing Media:	None known.
Special Fire-Fighting Procedures:	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.
Specific hazards arising from the chemical	In a fire or if heated, a pressure increase will occur and the container may burst.
Special protective equipment for fire-fighters	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, precautions, protective equipment and emergency procedures

For non-emergency personnel:	No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.
For emergency responders:	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For nonemergency personnel."
Environmental precautions:	Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil, or air).

Methods for Containment and Clean Up

Small spill:	Stop leak if it is possible to do so without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Large spill:	Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g., sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

7. HANDLING AND STORAGE

Protective handling measures:	Put on appropriate personal protective equipment (see Section 8).
Advice on general occupational hygiene:	Eating, drinking, and smoking should be prohibited in areas where this material is handled, stored, and processed. Workers should wash hands and face before eating, drinking, or smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional hygiene information.
Conditions for safe storage, including any incompatibilities	Store between the following temperatures: 20 to 25°C (68 to 77°F). Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool, and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits

Ingredient name	Exposure limits
Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)	**ACGIH TLV (United States).** TWA: 1 mg/m³ **NIOSH REL (United States).** TWA: 1 mg/m³

Appropriate engineering controls:	Good general ventilation should be sufficient to control worker exposure to airborne contaminants
Environmental exposure controls:	Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures

Hygiene measures:	Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.

Skin protection

Hand protection:	Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
Body:	Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Eye/Face Protection:	Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases, or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
Other Skin Protection:	Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
Respiratory Protection:	Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Not available
Appearance:	Not available
Odor:	Not available
Odor Threshold:	Not available
pH:	Not available
Boiling Point:	Not available
Melting Point:	Not available
Flash Point:	[Product does not sustain combustion.]
Evaporation Rate:	Not available
Flammability:	Not available
Upper/Lower Flammability Limits:	Not available

Vapor Pressure:	Not available
Vapor Density:	Not available
Specific Gravity:	Not available
Solubility:	Easily soluble in the following materials: cold water and hot water.
Partition coefficient (n-octanol/water):	Not available
Auto-Ignition Temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available

10. STABILITY AND REACTIVITY

Reactive Hazard:	No specific test data related to reactivity available for this product or its ingredients.
Chemical Stability:	The product is stable.
Conditions to Avoid:	No specific data.
Incompatible Materials:	No specific data.
Hazardous Decomposition Products:	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Hazardous Reactions:	Under normal conditions of storage and use, hazardous reactions will not occur.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity

Component	Result	Species	Dose	Exposure
Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)	LD50 Oral	Rat	300 mg/kg	–

Conclusion/Summary	To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.
Irritation/Corrosion	Not available
Sensitization	Not available
Mutagenicity	Not available
Carcinogenicity	Not available
Reproductive toxicity	Not available
Teratogenicity	Not available

Specific target organ toxicity (single exposure)	Not available
Specific target organ toxicity (repeated exposure)	Not available
Aspiration hazard	Not available
Information on the likely routes of exposure	Routes of entry anticipated: Oral, Dermal, Inhalation.
Potential acute health effects	
Eye Contact	No known significant effects or critical hazards.
Inhalation	No known significant effects or critical hazards.
Skin Contact	No known significant effects or critical hazards.
Ingestion	No known significant effects or critical hazards.
Symptoms related to the physical, chemical, and toxicological characteristics	
Eye Contact	No specific data
Inhalation	No specific data
Skin Contact	No specific data
Ingestion	No specific data
Delayed and immediate effects and also chronic effects from short and long term exposure	
Short term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available
Long term exposure	
Potential immediate effects	Not available
Potential delayed effects	Not available
Potential chronic health effects	
General	No known significant effects or critical hazards.
Carcinogenicity	No known significant effects or critical hazards.
Mutagenicity	No known significant effects or critical hazards.
Teratogenicity	No known significant effects or critical hazards.
Developmental effects	No known significant effects or critical hazards.

Fertility effects	No known significant effects or critical hazards.

Numerical measures of toxicity

Acute toxicity estimates

Route	ATE Value
Oral	7500 mg/kg

12. ECOLOGICAL INFORMATION

Ecotoxicity

Product/ingredient name	Result	Species	Exposure
Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)	EC50 0.024 mg/l Acute LC50 0.032 ppm Fresh water	Daphnia Fish - Oncorhynchus mykiss	48 hours 96 hours

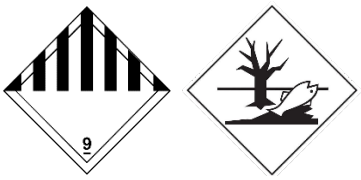
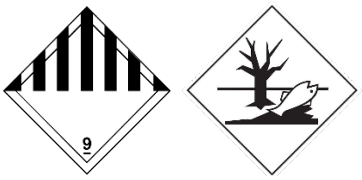
Persistence and Degradability	Not available
Bioaccumulation/ Accumulation	Not available
Mobility in Soil	
Soil/water partition coefficient (KOC)	Not available
Other Adverse Effects	No known significant effects or critical hazards.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. Transport Information

	DOT Classification	IATA
UN Number	UN3082	UN3082
UN proper shipping name	Environmentally Hazardous Substance, Liquid, n.o.s. (Sulfuric acid copper (2+) salt (1:1), hydrate (1:5), solution)	Environmentally Hazardous Substance, Liquid, n.o.s. (Copper (II) sulfate, pentahydrate (1:1:5))
Transport hazard class(es)	9 	9 
Packing group	III	III
Environmental hazards	Yes.	Yes.
Additional information	Non-bulk packages of this product are not regulated as hazardous materials unless transported by inland waterway. The marine pollutant mark is not required when transported on inland waterways in sizes of ≤5 L or ≤5 kg. Special provisions 8, 146, IB3, T4, TP1, TP29	The environmentally hazardous substance mark is not required when transported in sizes of ≤5 L or ≤5 kg.

Special precautions for user	Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not available

15. REGULATORY INFORMATION

U.S. Federal Regulations	TSCA 8(a) CDR Exempt/Partial exemption: Not determined United States inventory (TSCA 8b): All components are listed or exempted. Clean Water Act (CWA) 307: Sulfuric acid copper(2+) salt (1:1), hydrate (1:5) Clean Water Act (CWA) 311: Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)
Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)	Not listed
Clean Air Act Section 602 Class I Substances	Not listed
Clean Air Act Section 602 Class II Substances	Not listed
DEA List I Chemicals (Precursor Chemicals)	Not listed
DEA List II Chemicals (Essential Chemicals)	Not listed
SARA 302/304	
Composition/information on ingredients	No products were found.
SARA 304 RQ	Not applicable.
SARA 311/312	
Classification	Not applicable.

Composition/information on ingredients

Name	%	Fire Hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)	3 – 5	No.	No.	No.	Yes.	No.

SARA 313

SARA 313 notifications must not be detached from the SDS and any copying and redistribution of the SDS shall include copying and redistribution of the notice attached to copies of the SDS subsequently redistributed.

State Regulations

Massachusetts	The following components are listed: Sulfuric acid copper(2+) salt (1:1), hydrate (1:5)
New York	None of the components are listed.
New Jersey	The following components are listed: COPPER COMPOUNDS
Pennsylvania	The following components are listed: COPPER COMPOUNDS

Canada Inventory	All components are listed or exempted

International regulations

International lists	**Australia inventory (AICS):** All components are listed or exempted. **China inventory (IECSC):** All components are listed or exempted. **Japan inventory:** All components are listed or exempted. **Korea inventory:** All components are listed or exempted. **Malaysia Inventory (EHS Register):** Not determined. **New Zealand Inventory of Chemicals (NZIoC):** All components are listed or exempted. **Philippines inventory (PICCS):** All components are listed or exempted. **Taiwan inventory (CSNN):** Not determined
CWCL Schedule I Chemicals	Not listed
CWCL Schedule II Chemicals	Not listed
CWCL Schedule III Chemicals	Not listed

16. OTHER INFORMATION

Prepared by:	Technical Communications Research International, Inc. support@resrchintl.com
Revision Number:	2.0
Revision Date:	June 1, 2023
Revision Summary:	This document has been updated to comply with the US OSHA HazCom 2012 Standard replacing the current legislation under 29 CFR 1910.1200 to align with the Globally Harmonized System of Classification and Labeling of Chemicals (GHS).
Key to abbreviations:	ATE = Acute Toxicity Estimate CWCL= Chemical Weapons Convention List GHS = Globally Harmonized System of Classification and Labelling of Chemicals HAP = Hazardous Air Pollution IATA = International Air Transport Association IBC = Intermediate Bulk Container MARPOL 73/78 = International Convention for the Prevention of Pollution from Ships, 1973 as modified by the Protocol of 1978. ("MarPol" = marine pollution) UN = United Nations

Disclaimer: The information provided in this Safety Data Sheet is correct to the best of our knowledge, information, and belief at the date of publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text. Users should make independent decisions regarding completeness of the information. Research International, Inc. shall not be held liable for any damage resulting from handling or contact with the above product.