



ARBOR
ASSAYS

Material Safety Data Sheet

Revision Date: 01/31/13

Version: 1.1

Date Printed: 01/31/13

Section 1: Product and Company Identification

Product Name **DetectX® BCA Colorimetric Detection Kit**
Catalog Number **K041-H1**

Company Arbor Assays
1514 Eisenhower Place
Ann Arbor, MI 48108-3284
USA

Telephone 734-677-1774
Fax 734-677-6860

Section 2: Chemical Component Information

List of Components BSA Standard (C143-200UL)
BCA Reagent (C144-16ML)
BCA Enhancer (C145-320UL)

Hazardous Ingredients

<u>Chemical Name</u>	<u>CAS #</u>	<u>Kit Component</u>	<u>Percent</u>	<u>SARA 313</u>
Sodium Azide	26628-22-8	C143-200UL (Standard)	≤ 0.09%	Yes
Sodium Carbonate	497-19-8	C144-16ML (Reagent)	≥ 1.0%	No
Copper Sulfate, Pentahydrate	7758-99-8	C145-320UL (Enhancer)	≥ 1.0%	Yes

Information on other specific chemicals of this kit is being withheld as a trade secret of the manufacturer.

Section 3: Health Hazards

Emergency Overview	It is recommended that personnel wear safety goggles, gloves and protective clothing at all times. As part of good industrial and personal hygiene and safety procedure, avoid all unnecessary exposure to the chemical components of this kit and ensure prompt removal from skin, eye, and clothing.
Sodium Azide	Harmful if inhaled, absorbed through skin or swallowed. Contact with acids liberates toxic gas. Irritating to eyes, respiratory system and skin. Harmful to aquatic organisms, may cause long-term adverse effects in aquatic environment. May react with lead and copper plumbing to form highly explosive metal azides.
Sodium Carbonate	Harmful if inhaled. Contact with decomposition products may cause delayed symptoms. Irritating to eyes, respiratory system and skin.

Copper Sulfate Harmful if ingested. Irritating to eyes, respiratory system and skin. May cause allergic skin reaction once sensitized.

Section 4: First Aid Measures

Inhalation If inhaled, remove to fresh air. Seek medical attention if any respiratory symptoms develop.

Skin Contact Rinse with copious amounts of water and wash thoroughly with soap and water for 15 minutes. If irritation or discomfort develops seek medical attention.

Eye Contact Rinse eyes with running water, checking for and removing contact lenses. Continue for at least 15 minutes. Seek medical attention.

Ingestion If swallowed, wash out mouth with water if person is conscious. Do not induce vomiting. Seek medical attention.

Section 5: Fire Fighting Measures

Characteristic	C143-200UL (Sodium Azide, $\leq 0.09\%$)	C144-16ML (Sodium Carbonate, $\geq 1\%$)	C145-320UL (Copper Sulfate Pentahydrate, $\geq 1\%$)
Flash Point	N/A	N/A	N/A
Explosion Limits	N/A	N/A	N/A
Auto-ignition Temp	N/A	N/A	N/A
Flammability	N/A	N/A	N/A
Extinguishing Media	Suitable: Carbon Dioxide, dry chemical powder, or appropriate foam.		
Firefighting	Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.		

Section 6: Accidental Release Measures

Cleanup Procedures Wear appropriate protective clothing, Contain spill to prevent migration. Absorb spill with inert material, place in sealed container and hold for appropriate disposal.

Waste Disposal Dispose of in accordance with federal, state, and local regulations.

Section 7: Handling and Storage

Handling Avoid getting components of this kit on you or in you. Always wear appropriate protective clothing. Always wash hands and other exposed areas thoroughly after using this kit. Do not eat or drink while using this kit. Qualified and experienced professionals should only handle this kit.

Storage Store according to the package insert instructions.

Section 8: Exposure Controls and Personal Protection

Engineering Controls No special engineering controls are required when working with this kit. Use with adequate ventilation.

Protective Equipment Safety glasses are recommended to prevent eye contact. Chemical resistant gloves and a lab coat should be worn to prevent skin contact.

Section 9: Physical and Chemical Properties

Characteristic	C143-200UL (Sodium Azide, ≤ 0.09%)	C144-16ML (Sodium Carbonate, ≥ 1%)	C145-320UL (Copper Sulfate Pentahydrate, ≥ 1%)
Appearance	Clear, colorless liquid	Clear, colorless liquid	Clear, blue colored liquid
Odor	Slight	None	None
Boiling Point	N/A	1,633°C	150°C
Melting Point	N/A	851°C	110°C
Density	N/A	2.54	2.284
Vapor Pressure	N/A	N/A	7.3mm Hg @ 25°C
Solubility in Water	Complete	Complete	Complete
pH	N/A	Alkaline	N/A

Section 10: Stability and Reactivity

Stability This material is stable until the expiration date on the kit if stored as directed.

Conditions to Avoid Heat, incompatibles

Incompatibles Strong oxidizing agents or acids. Sodium azide may react with lead and copper plumbing.

Section 11: Toxicological Information

Route of Exposure

Skin Contact May cause skin irritation.

Skin Absorption May be harmful if absorbed through the skin.

Eye Contact May cause eye irritation.

Inhalation May be irritating to mucous membranes and upper respiratory tract. May be harmful if inhaled.

Ingestion Harmful if swallowed.

Symptoms of Exposure To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Section 12: Ecological Information

No data is available.

Section 13: Disposal Considerations

Dispose of waste materials, unused components and contaminated packaging in compliance with country, state, district and local regulations. If unsure of the applicable requirements, contact the authorities for information.

Section 14: Transport InformationU.S. and Canadian Transportation; DOT

Proper Shipping Name Chemical Kits
UN Identification Number 3316
Class and Description 9, Miscellaneous
Packing Group N/A
Hazard Label Class 9

International Air Transportation (IATA)

Proper Shipping Name Chemical Kits
UN Identification Number 3316
Class and Description 9, Miscellaneous
Packing Group III
Hazard Label Class 9

Section 15: Regulatory InformationProduct related information

The product is not subject to classification according to the sources of literature known to us.

Observe general safety regulations when handling chemicals.

Safety Statements

Avoid release to the environment.

Risk Statements

Contains human blood. Harmful if swallowed. Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

U.S. Regulatory Information

Sara Listed: Yes, Sodium Azide (CAS# 26628-22-8) and Copper Sulfate (CAS# 7758-99-8) contained in this product are subject to SARA 313 Reporting requirements.

Section 16: Other Information

Disclaimer: For Research Use Only. Not for diagnostic, therapeutic, or other uses.

Further Information: The information contained in this document is accurate to the best of our knowledge and is provided in good faith. This document is intended only as a guide to the appropriate precautionary handling of the materials contained in this kit by properly trained personnel using this kit. Final determination or suitability of any materials is the sole responsibility of the user. Arbor Assays shall not be held liable for any damage resulting from use or handling of this product.