

A Geno Technology, Inc. (USA) brand name

Safety Data Sheet

Bicinchoninic Acid (BCA) Protein Assay Reducing Agent Compatible

Cat.# 786-573

Part#	Component
017R	Reducing Agent Compatibility Agent (RACA)
030B-B	BCA Solution (BCA Reagent A)
224B-B	BSA (2mg/mL) Solution
274C	Copper Solution (BCA Reagent B)

Last saved: 12/11/2015 TN





Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 06/10/2013 Revision date: 12/11/2015 Version: 1.2

SECTION 1: Identification		
1.1. Identification		
Product form	: Substance	
Substance name	: Reducing Agent Compatibility Agent (RACA)	
Product code	: 017R	
1.2. Relevant identified uses of the subst	ance or mixture and uses advised against	
No additional information available		
1.3. Details of the supplier of the safety d	lata shoot	
Geno Technology, Inc./ G-Biosciences		
9800 Page Avenue		
Saint Louis, 63132-1429 - United States		
T 800-628-7730 - F 314-991-1504 technical@GBiosciences.com - www.GBioscience	es.com	
1.4. Emergency telephone number		
Emergency number	: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)	
SECTION 2: Hazard(s) identification		
2.1. Classification of the substance or mi	ixture	
Classification (GHS-US)		
Not classified		
2.2. Label elements		
GHS-US labeling		
No labeling applicable		
2.3. Other hazards		
No additional information available		
2.4. Unknown acute toxicity (GHS US)		
Not applicable		
SECTION 3: Composition/information	n on ingredients	
3.1. Substances		
Name	: Reducing Agent Compatibility Agent (RACA)	
Full text of H-phrases: see section 16		
3.2. Mixtures		
Not applicable		
SECTION 4: First aid measures		
4.1. Description of first aid measures		
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.	
First-aid measures after skin contact	: Wash skin with plenty of water.	
First-aid measures after eye contact	: Rinse eyes with water as a precaution.	
First-aid measures after ingestion	: Call a poison center or a doctor if you feel unwell.	
4.2. Most important symptoms and effect	ts, both acute and delayed	
No additional information available		
4.3. Indication of any immediate medical	attention and special treatment needed	
Treat symptomatically.		
SECTION 5: Firefighting measures		
5.1. Extinguishing media		
suitable extinguishing media	: Water spray. Dry powder. Foam.	
5.2. Special hazards arising from the sub		
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.	
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Reducing Agent Compatibility Agent (RACA) Safety Data Sheet

5.3. Advice for firefighters	
Protection during firefighting	: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release m	easures
6.1. Personal precautions, protectiv	e equipment and emergency procedures
6.1.1. For non-emergency personnel	
Emergency procedures	: Ventilate spillage area.
6.1.2. For emergency responders Protective equipment	: Do not attempt to take action without suitable protective equipment. For further information refer to section 8 Exposure controls/personal protection" ".
6.2. Environmental precautions	
Avoid release to the environment.	
6.3. Methods and material for contain	nment and cleaning up
Methods for cleaning up	: Recover mechanically the product.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
For further information refer to section 8 : Ex	posure-controls/personal protection"".
SECTION 7: Handling and storag	e
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, inc	luding any incompatibilities
Storage conditions	: Store in a well-ventilated place. Keep cool.
SECTION 8: Exposure controls/p	ersonal protection
8.1. Control parameters	
No additional information available 8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection Environmental exposure controls	 In case of insufficient ventilation, wear suitable respiratory equipment. Avoid release to the environment.
SECTION 9: Physical and chemic	
9.1. Information on basic physical a Physical state	chemical properties : Solid
Physical state Color	 Solid Mixture contains one or more component(s) which have the following colour(s): White-yellow to brown
Odor	 There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): No data available on odour
Odor Odor threshold	overexposure.

Melting point

Boiling point

Freezing point

pН

: No data available

: No data available

: No data available

: Not applicable

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Flash point	: Not applicable
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: Not applicable
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: Not applicable
Relative vapor density at 20 °C	: No data available
Solubility	: No data available
Log Pow	: No data available
Self ignition temperature	: Not applicable
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: Not applicable
Viscosity, dynamic	: No data available

9.2. **Other information**

No additional information available

No additional information available			
SECTION 10: Stability and reactivity			
10.1. Reactivity			
The product is non-reactive under normal conditions of use, storage and transport.			
10.2. Chemical stability			
Stable under normal conditions.			
10.3. Possibility of hazardous reactions			
No dangerous reactions known under normal conditions of use.			
10.4. Conditions to avoid			
None under recommended storage and handling conditions (see section 7).			
10.5. Incompatible materials			
No additional information available			
10.6. Hazardous decomposition products			
Hazardous decomposition products.			
SECTION 11: Toxicological information			

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

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SECTION 12: Ecological information	
12.1. Toxicity	
Ecology - general :	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.
12.2. Persistence and degradability	
No additional information available	
12.3. Bioaccumulative potential	
No additional information available	
12.4. Mobility in soil	
No additional information available	
12.5. Other adverse effects	
Effect on the global warming :	No known ecological damage caused by this product.
SECTION 13: Disposal considerations	
13.1. Waste treatment methods	
Waste treatment methods :	Waste treatment methods.
SECTION 14: Transport information	
Department of Transportation (DOT)	
In accordance with DOT	
No dangerous good in sense of transport regulation	IS
TDG	
No additional information available	
Transport by sea	
No additional information available	
Air transport	
No additional information available	
SECTION 15: Regulatory information	
15.1. US Federal regulations	
Reducing Agent Compatibility Agent (RACA)	
Not listed on the United States TSCA (Toxic Subs	tances Control Act) inventory
45.0 International regulations	
15.2. International regulations CANADA	
No additional information available	
EU-Regulations No additional information available	
National regulations No additional information available	
15.3. US State regulations	
No additional information available	
SECTION 16: Other information	
Revision date :	12/11/2015
SDS US (GHS HazCom 2012)	

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This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



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SECTION 1: Identification		
1.1. Identification		
Product form	: Mixtures	
Product name.	: BCA Solution	
Product code	: 030B, 030B-B, 030B-C, 030B-D, 786-844, 786-845, 786-846, 786-847	
1.2. Relevant identified uses of the subs	stance or mixture and uses advised against	
No additional information available		
1.3. Details of the supplier of the safety	data sheet	
Geno Technology, Inc./ G-Biosciences 9800 Page Avenue Saint Louis, 63132-1429 - United States T 800-628-7730 - F 314-991-1504 technical@GBiosciences.com - www.GBioscien	<u>ces.com</u>	
1.4. Emergency telephone number		
Emergency number	: Chemtrec 1-800-424-9300 (USA/Canada), +1-703-527-3887 (Intl)	
SECTION 2: Hazard(s) identification		
2.1. Classification of the substance or n		
	inturo	
Classification (GHS-US)		
skin corrosion/irritation Category 1B H314		
Full text of H statements : see section 16		
2.2. Label elements		
GHS-US labeling		
Hazard pictograms (GHS-US)	GHS05	
Signal word (GHS-US)	: Warning	
Hazard statements (GHS-US)	: H314 - Causes severe skin burns and eye damage	
Precautionary statements (GHS-US)	 P260 - Do not breathe mist, spray P264 - Wash hands, forearms and face thoroughly after handling P280 - Wear eye protection, protective clothing, protective gloves P301 + P330 + P331 - If swallowed: rinse mouth. Do NOT induce vomiting 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 P303 - Ummediately call a a doctor, a POISON CENTER P363 - Wash contaminated clothing before reuse P405 - Store locked up P501 - Dispose of contents/container to an approved waste disposal plant 	
2.3. Other hazards		
No additional information available		
2.4. Unknown acute toxicity (GHS US)		
Not applicable		
SECTION 3: Composition/informatic	n on ingredients	
3.1. Substances		
Not applicable		
3.2. Mixtures		

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Name	Product identifier	%	Classification (GHS-US)
sodium carbonate	(CAS No) 497-19-8	2 - 5	Eye Irrit. 2A, H319
(2,2'-biquinoline)-4,4'-dicarboxylic acid, disodium salt	(CAS No) 979-88-4	< 2	Eye Irrit. 2A, H319
sodium hydroxide	(CAS No) 1310-73-2	< 2	Skin Corr. 1A, H314

Full text of H-phrases: see section 16

SECTION 4: First aid measures	
4.1. Description of first aid measures	
First-aid measures general	Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). Dispose of rinse water as waste water. Call a physician immediately.
First-aid measures after inhalation	Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a poison center or doctor/physician.
First-aid measures after skin contact	Immediately call a poison center or doctor/physician. Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. Call a physician immediately.
First-aid measures after eye contact	Immediately call a poison center or doctor/physician. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	Do NOT induce vomiting. Immediately call a poison center or doctor/physician. Rinse mouth. Do NOT induce vomiting. Call a physician immediately.
4.2. Most important symptoms and effects	, both acute and delayed
Symptoms/injuries	Causes severe skin burns and eye damage.
Symptoms/injuries after skin contact	Burns.
Symptoms/injuries after eye contact	Serious damage to eyes.
Symptoms/injuries after ingestion	Burns.
4.3. Indication of any immediate medical a	ttention and special treatment needed

Treat symptomatically.

5.1.	Extinguishing media	
suitable extinguishing media		: Sand. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuita	ble extinguishing media	: Do not use a heavy water stream.
5.2.	. Special hazards arising from the substance or mixture	
Reactiv	ity	: Thermal decomposition generates : Corrosive vapors.
5.3.	Advice for firefighters	
Firefigh	ting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting		Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

6.1.	Personal precautions, protective equipment and emergency procedures		
6.1.1.	For non-emergency personnel		
Emergency procedures		: Ventilate spillage area. Evacuate unnecessary personnel. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray.	
6.1.2.	For emergency responders		
Protective	e equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8 Exposure controls/personal protection" ".	
Emergency procedures		Ventilate area.	
6.2.	Environmental precautions		

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

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6.3. Methods and material for containment and cleaning up		ment and cleaning up
Method	ls for cleaning up	: Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other in	nformation	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections		
See Heading 8. Exposure controls and personal protection. For further information refer to section 8 : Exposure-controls/personal protection"".		

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor. Avoid contact with skin and eyes. Do not breathe dust/fume/gas/mist/vapors/spray. Wear personal protective equipment.
Hygiene measures	: Wash thoroughly after handling. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, includi	ng any incompatibilities
Technical measures	: Comply with applicable regulations.
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store locked up. Store in a well-ventilated place. Keep cool.
Incompatible products	: Strong bases. strong acids.
Incompatible materials	: Sources of ignition. Direct sunlight.
Storage temperature	: ambient temperature

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

sodium hydroxide (1310-73-2)		
ACGIH	ACGIH Ceiling (mg/m ³)	2 mg/m ³ (Sodium hydroxide; USA; Momentary value; TLV - Adopted Value)
(2,2'-biquinoline)-4,4'-dicarboxylic acid, disodium salt (979-88-4)		
Not applicable		
sodium carbonate (497-19-8)		
Not applicable		

8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or face shield. Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Wear approved mask.
Environmental exposure controls	: Avoid release to the environment.
Other information	: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties		
Physical state	: Liquid	
Color	: Mixture contains one or more component(s) which have the following colour(s): Colourless to white White Colorless. White-yellow	
Odor	 There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): Odourless Almost odourless Mild odour 	
Odor threshold	: No data available	
рН	: No data available	
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ccording to Federal Register / Vol. 77, No. 58 / Monda	y, March 26, 2012 / Rules and Regulations
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
/apor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	 Water: Solubility in water of component(s) of the mixture : 22 g/100ml disodium tartrate, dihydrate: > 29 g/100ml sodium hydroxide: 42 g/100ml (2,2'-biquinoline)-4,4'-dicarboxylic acid, disodium salt: 1.0 g/100ml
Log Pow	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
/iscosity, kinematic	: No data available
/iscosity, dynamic	: No data available
9.2. Other information	
No additional information available	
SECTION 10: Stability and reactivity	y
10.1. Reactivity	
Thermal decomposition generates : Corrosive v	/apors.
10.2. Chemical stability	
Not established.	
10.3. Possibility of hazardous reactions	
Not established.	
10.4. Conditions to avoid	
Direct sunlight. Extremely high or low temperate	ures.
10.5. Incompatible materials	
strong acids. Strong bases.	
5 5	
10.6. Hazardous decomposition product	
rume. Carbon monoxide. Carbon dioxide. Therr	nal decomposition generates : Corrosive vapors.
SECTION 11: Toxicological informa	ition
11.1. Information on toxicological effect	S
Acute toxicity	: Not classified
sodium carbonate (497-19-8)	
LD50 oral rat	2800 mg/kg (Rat; Experimental value)
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Experimental value)
Skin corrosion/irritation : Causes severe skin burns and eye damage.	
Serious eye damage/irritation : Not classified	
Respiratory or skin sensitization : Not classified	
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified

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Reproductive toxicity	: Not classified
	Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential Adverse human health effects and	: Based on available data, the classification criteria are not met.
symptoms	
Symptoms/injuries after skin contact	: Burns.
Symptoms/injuries after eye contact	: Serious damage to eyes.
Symptoms/injuries after ingestion	: Burns.

SECTION 12: Ecological information			
12.1. Toxicity			
Ecology - general : Before neutralisation, the product may represent a danger to aquatic organisms.			
sodium hydroxide (1310-73-2)			
LC50 fish 1	45.4 mg/l (LC50; Other; 96 h; Salmo gairdneri; Static system; Fresh water; Experimental value)		
sodium carbonate (497-19-8)			
LC50 fish 1 300 mg/l (LC50; Other; 96 h; Lepomis macrochirus; Static system; Fresh water; Expe value)			
Threshold limit algae 1	242 mg/l (EC50; 5 days; Algae)		
12.2. Persistence and degradability			
BCA Solution			
Persistence and degradability	Not established.		
sodium hydroxide (1310-73-2)			
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.		
Biochemical oxygen demand (BOD)	Not applicable		
Chemical oxygen demand (COD)	I (COD) Not applicable		
ThOD	Not applicable		
(2,2'-biquinoline)-4,4'-dicarboxylic acid, disodium salt (979-88-4)			
Persistence and degradability Biodegradability in water: no data available.			
sodium carbonate (497-19-8)			
Persistence and degradability	Biodegradability: not applicable. Low potential for adsorption in soil.		
ThOD	Not applicable (inorganic)		
12.3. Bioaccumulative potential			
BCA Solution			
Bioaccumulative potential	Not established.		
sodium hydroxide (1310-73-2)			
Bioaccumulative potential No bioaccumulation data available.			
(2,2'-biquinoline)-4,4'-dicarboxylic acid, o			
Bioaccumulative potential	No bioaccumulation data available.		
sodium carbonate (497-19-8)			
Log Pow	-6.19 (Estimated value)		

Bioaccumulative potential Low potential for bioaccumulation (Log Kow < 4).

12.4. Mobility in soil

No additional information available

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12.5. Other adverse effects	
Effect on the global warming	: No known ecological damage caused by this product.
Other information	: Avoid release to the environment.
SECTION 13: Disposal consideration	S
13.1. Waste treatment methods	
Waste treatment methods	: Waste treatment methods.
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Dispose in a safe manner in accordance with local/national regulations.
Ecology - waste materials	: Avoid release to the environment.
SECTION 14: Transport information	
Department of Transportation (DOT)	
In accordance with DOT	
Transport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
UN-No.(DOT)	: UN3082
DOT Proper Shipping Name	: Environmentally hazardous substances, liquid, n.o.s.
Class (DOT)	: 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
Hazard labels (DOT)	: 9 - Class 9 (Miscellaneous dangerous materials)
Packing group (DOT)	: III - Minor Danger
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241 · C - Identifies PSN requiring a technical name
DOT Special Provisions (49 CFR 172.102)	 G - Identifies PSN requiring a technical name 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination 173 - An appropriate generic entry may be used for this material 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HD2 and 31HA2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672) T4 - 2.65 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	: 155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: No limit

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DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: No limit
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel
Other information	: No supplementary information available.
TDG	

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:

sodium hydroxide	CAS No 1310-73-2	< 2%	
(2,2'-biquinoline)-4,4'-dicarboxylic acid, disodium salt	CAS No 979-88-4	< 2%	
sodium carbonate	CAS No 497-19-8	2 - 5%	

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

sodium hydroxide (1310-73-2)

CERCLA RQ	1000 lb
· · ·	

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other inform	mation		
Revision date	: 08/12/2015		
Other information	: None.		
Full text of H-phrases::			
H314		Causes severe skin burns and eye damage	
H319		Causes serious eye irritation	

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



Safety Data Sheet according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations Date of issue: 07/29/2015 Revision date: 08/12/2015 Version: 2.1

SECTION 1: Identification			
1.1. Identification			
Product form	: Mixtures		
Product name.	: Copper Solution (BCA Reagent B	\$)	
Product code	: 274C, 274C-B, 786-848		
1.2. Relevant identified uses of the s	substance or mixture and uses advised	against	
No additional information available			
1.3. Details of the supplier of the saf	fety data sheet		
Geno Technology, Inc./ G-Biosciences 9800 Page Avenue Saint Louis, 63132-1429 - United States T 800-628-7730 - F 314-991-1504 technical@GBiosciences.com - www.GBiosc	ciences.com		
1.4. Emergency telephone number			
Emergency number	: Chemtrec 1-800-424-9300 (USA/	Canada), +1-703-527-3 8	387 (Intl)
SECTION 2: Hazard(s) identificati	ion		
2.1. Classification of the substance of			
Classification (GHS-US)			
Hazardous to the aquatic environment - Chro	ronic Hazard Category 2 H411		
Full text of H statements : see section 16			
2.2. Label elements			
GHS-US labeling			
	GHS09		
Signal word (GHS-US)	: Warning		
Hazard statements (GHS-US)	: H411 - Toxic to aquatic life with lo	• •	
Precautionary statements (GHS-US)	: P273 - Avoid release to the enviro P391 - Collect spillage	onment	
	P501 - Dispose of contents/conta	iner to an approved was	te disposal plant
2.3. Other hazards			
No additional information available			
2.4. Unknown acute toxicity (GHS US	S)		
Not applicable			
SECTION 3: Composition/informa	ation on ingredients		
3.1. Substances			
Not applicable			
3.2. Mixtures			
	Droduct identifier	0/	Classification (CUC UC)
	CAS No) 7758-99-8	% 2-5	Classification (GHS-US) Acute Tox. 3 (Oral), H301
Name	(UND INU) 1100-33-0	2-0	Acute TOX. 3 (Oldi), FISUT
copper(II) sulfate, pentahydrate	·		
copper(II) sulfate, pentahydrate Full text of H-phrases: see section 16			
copper(II) sulfate, pentahydrate Full text of H-phrases: see section 16 SECTION 4: First aid measures			
	es : Never give anything by mouth to a		

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First-aid measures after inhalation :	Remove person to fresh air and keep comfortable for breathing. Assure fresh air breathing. Allow the victim to rest.
First-aid measures after skin contact :	Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
First-aid measures after eye contact :	Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist. Rinse eyes with water as a precaution.
First-aid measures after ingestion :	Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.
4.2. Most important symptoms and effects,	both acute and delayed
Symptoms/injuries :	Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECT	ION 5: Firefighting measures	
5.1.	Extinguishing media	
suitable	e extinguishing media	: Sand. Water spray. Dry powder. Foam. Carbon dioxide.
Unsuita	able extinguishing media	: Do not use a heavy water stream.
5.2.	Special hazards arising from the s	substance or mixture
Reactiv	vity	: The product is non-reactive under normal conditions of use, storage and transport.
5.3.	Advice for firefighters	
Firefigh	nting instructions	 Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting		: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures		
6.1.	Personal precautions, protective eq	uipment and emergency procedures
6.1.1. Emerger	For non-emergency personnel ncy procedures	: Ventilate spillage area. Evacuate unnecessary personnel.
6.1.2.	For emergency responders	
Protectiv	e equipment	Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8 Exposure controls/personal protection" ".
Emerger	ncy procedures	: Ventilate area.
6.2.	Environmental precautions	
Avoid rel	lease to the environment. Prevent entry	to sewers and public waters. Notify authorities if liquid enters sewers or public waters.
6.2	Methods and material for containme	ant and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information	: Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	

See Heading 8. Exposure controls and personal protection. For further information refer to section 8 : Exposure-controls/personal protection"".

SECTION 7: Handling and storage	
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
Hygiene measures	: Do not eat, drink or smoke when using this product. Always wash hands after handling the product.
7.2. Conditions for safe storage, including	ig any incompatibilities
Storage conditions	: Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

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- Incompatible products : Strong bases. strong acids.
- Incompatible materials Storage temperature

- : Sources of ignition. Direct sunlight.
- : ambient temperature

SECTION 8: Exposure controls/personal protection

8.1. Control parameters	Control parameters		
Copper Solution (BCA Reagent B)			
DNEL	DNEL	<=	
copper(II) sulfate, pentahydrate (7758-99-8)			
Not applicable			

8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses. Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Wear approved mask.
Environmental exposure controls	: Avoid release to the environment.
Other information	: When using, do not eat, drink or smoke.
SECTION 9: Physical and chem	ical properties
9.1. Information on basic physical	
9.1. mormation on basic physical	and chemical properties
Physical state	: Liquid

9.1. Information on basic physical and	chemical properties
Physical state	: Liquid
Color	: Mixture contains one or more component(s) which have the following colour(s): Blue
Odor	 There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour(s): Odourless
Odor threshold	: No data available
рН	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	 Water: Solubility in water of component(s) of the mixture : copper(II) sulfate, pentahydrate: 23 g/100ml
Log Pow	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

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9.2.	Other information
No addi	tional information available
SECT	ION 10: Stability and reactivity
10.1.	Reactivity
The pro	duct is non-reactive under normal conditions of use, storage and transport.
10.2.	Chemical stability
Not esta	ablished.
10.3.	Possibility of hazardous reactions
Not esta	ablished.
10.4.	Conditions to avoid
Direct s	unlight. Extremely high or low temperatures.
10.5.	Incompatible materials

strong acids. Strong bases.

10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

: Not classified

copper(II) sulfate, pentahydrate (7758-99-8)		
LD50 oral rat	300 mg/kg (Rat; OECD 401: Acute Oral Toxicity; Experimental value; 482 mg/kg bodyweight; Rat)	
LD50 dermal rabbit	> 2000 mg/kg (Rabbit; Literature study; OECD 402: Acute Dermal Toxicity)	
ATE US (oral)	300.000 mg/kg body weight	
Skin corrosion/irritation	: Not classified	
Serious eye damage/irritation	: Not classified	
Respiratory or skin sensitization	: Not classified	
Germ cell mutagenicity	: Not classified	
	Based on available data, the classification criteria are not met	
Carcinogenicity	: Not classified	
Reproductive toxicity	: Not classified	
	Based on available data, the classification criteria are not met	
Specific target organ toxicity (single exposure)	: Not classified	
Specific target organ toxicity (repeated exposure)	: Not classified	
Aspiration hazard	: Not classified	
Potential Adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.	

SECTION 12: Ecological information				
12.1. Toxicity				
Ecology - general	: Toxic to aquatic life with long lasting effects.			
Ecology - water	: Toxic to aquatic life with long lasting effects.			
copper(II) sulfate, pentahydrate (7758-99-8)	copper(II) sulfate, pentahydrate (7758-99-8)			
Threshold limit algae 2	0.368 mg/l (ErC50; OECD 201: Alga, Growth Inhibition Test; 72 h; Pseudokirchneriella subcapitata; Static system; Fresh water; Read-across)			
12.2. Persistence and degradability				
Copper Solution (BCA Reagent B)				
Persistence and degradability May cause long-term adverse effects in the environment.				

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copper(II) sulfate, pentahydrate (7758-99-8	
Persistence and degradability	Biodegradability: not applicable. No (test)data on mobility of the substance available.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
2.3. Bioaccumulative potential	
Copper Solution (BCA Reagent B)	
Bioaccumulative potential	Not established.
copper(II) sulfate, pentahydrate (7758-99-8	3)
Bioaccumulative potential	Bioaccumable.
2.4. Mobility in soil	
copper(II) sulfate, pentahydrate (7758-99-8	3)
Ecology - soil	Toxic to flora.
2.5. Other adverse effects	
ffect on the global warming	: No known ecological damage caused by this product.
ther information	: Avoid release to the environment.
ECTION 13: Disposal consideration	ons
3.1. Waste treatment methods	
/aste treatment methods	: Waste treatment methods.
aste disposal recommendations	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to
cology - waste materials	: Avoid release to the environment.
ECTION 14: Transport information	n
	n
epartment of Transportation (DOT)	n
epartment of Transportation (DOT)	
epartment of Transportation (DOT) accordance with DOT ransport document description	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III
epartment of Transportation (DOT) accordance with DOT ransport document description N-No.(DOT)	: UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082
epartment of Transportation (DOT) accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name	 UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III UN3082 Environmentally hazardous substances, liquid, n.o.s.
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT)	 UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III UN3082 Environmentally hazardous substances, liquid, n.o.s. 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
epartment of Transportation (DOT) accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name	 UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III UN3082 Environmentally hazardous substances, liquid, n.o.s.
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT)	 UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III UN3082 Environmentally hazardous substances, liquid, n.o.s. 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT)	 UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III UN3082 Environmentally hazardous substances, liquid, n.o.s. 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT) azard labels (DOT)	 : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082 : Environmentally hazardous substances, liquid, n.o.s. : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 : 9 - Class 9 (Miscellaneous dangerous materials)
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT) azard labels (DOT)	 : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082 : Environmentally hazardous substances, liquid, n.o.s. : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 : 9 - Class 9 (Miscellaneous dangerous materials) : 11 - Minor Danger
accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT) azard labels (DOT)	 : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082 : Environmentally hazardous substances, liquid, n.o.s. : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 : 9 - Class 9 (Miscellaneous dangerous materials) III - Minor Danger : Yes
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT) azard labels (DOT)	 : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082 : Environmentally hazardous substances, liquid, n.o.s. : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 : 9 - Class 9 (Miscellaneous dangerous materials) : 11 - Minor Danger
accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT) azard labels (DOT)	 : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082 : Environmentally hazardous substances, liquid, n.o.s. : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 : 9 - Class 9 (Miscellaneous dangerous materials) III - Minor Danger : Yes
epartment of Transportation (DOT) a accordance with DOT ransport document description N-No.(DOT) OT Proper Shipping Name lass (DOT) azard labels (DOT) acking group (DOT) angerous for the environment larine pollutant	 : UN3082 Environmentally hazardous substances, liquid, n.o.s., 9, III : UN3082 : Environmentally hazardous substances, liquid, n.o.s. : 9 - Class 9 - Miscellaneous hazardous material 49 CFR 173.140 : 9 - Class 9 (Miscellaneous dangerous materials) : 0 - Class 9 (Miscellaneous dangerous materials) : 111 - Minor Danger : Yes : Yes

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DOT Special Provisions (49 CFR 172.102)	-	 8 - A hazardous substance that is not a hazardous waste may be shipped under the shipping description "Other regulated substances, liquid or solid, n.o.s.", as appropriate. In addition, for solid materials, special provision B54 applies 146 - This description may be used for a material that poses a hazard to the environment but does not meet the definition for a hazardous waste or a hazardous substance, as defined in 171.8 of this subchapter, or any hazard class as defined in Part 173 of this subchapter, if it is designated as environmentally hazardous by the Competent Authority of the country of origin, transit or destination 173 - An appropriate generic entry may be used for this material 335 - Mixtures of solids that are not subject to this subchapter and environmentally hazardous liquids or solids may be classified as "Environmentally hazardous substances, solid, n.o.s," UN3077 and may be transported under this entry, provided there is no free liquid visible at the time the material is loaded or at the time the packaging or transport unit is closed. Each transport unit must be leak-proof when used as bulk packaging IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HD2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672) T4 - 2.65 178.274(d)(2) Normal
DOT Packaging Exceptions (49 CFR 173.xxx)	:	155
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	No limit
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	No limit
DOT Vessel Stowage Location	:	A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel
Other information	:	No supplementary information available.

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

copper(II) sulfate, pentahydrate (7758-99-8)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

15.2. International regulations

CANADA No additional information available

EU-Regulations No additional information available

National regulations No additional information available

15.3. US State regulations

No additional information available

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SECTION 16: Other information				
: 08/12/2015				
: None.				
	Toxic if swallowed			
	Toxic to aquatic life with long lasting effects			
	: 08/12/2015	: 08/12/2015 : None. Toxic if swallowed		

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product



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SECTION 1: Identification				
SECTION 1: Identification				
1.1. Identification	: Mixtu			
Product form Product name.		Solution		
Product code	_	006, 786-114, 786-920, 224B-B, 224B-C.	224B-0 236B	238B 240B 242B 244B 246B
	445A		, 2240 0, 2000,	2300, 2400, 2420, 2440, 2400,
1.2. Relevant identified uses of the sul	ostance or	mixture and uses advised against		
No additional information available				
1.3. Details of the supplier of the safet	y data she	et		
Geno Technology, Inc./ G-Biosciences				
9800 Page Avenue Saint Louis, 63132-1429 - United States				
T 800-628-7730 - F 314-991-1504				
technical@GBiosciences.com - www.GBioscie	nces.com			
1.4. Emergency telephone number	0			4.43
Emergency number	: Cher	ntrec 1-800-424-9300 (USA/Canada), +1	-703-527-3887	(Intl)
SECTION 2: Hazard(s) identification	n			
2.1. Classification of the substance or	mixture			
Classification (GHS-US)				
Not classified				
2.2. Label elements				
GHS-US labeling				
No labeling applicable				
2.3. Other hazards				
No additional information available 2.4. Unknown acute toxicity (GHS US)				
Not applicable				
SECTION 3: Composition/informati	on on in	aradiante		
3.1. Substances		Igredients		
Not applicable				
3.2. Mixtures				
		Dreduct identifier	0/	Clossification (CHS US)
Name sodium azide		Product identifier (CAS No) 26628-22-8	% <2	Classification (GHS-US) Acute Tox. 2 (Oral), H300
				Acute Tox. 1 (Dermal), H310
				Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Full text of H-phrases: see section 16				· · ·
SECTION 4: First aid measures				
4.1. Description of first aid measures				
First-aid measures general		er give anything by mouth to an unconsci ce (show the label where possible).	ous person. If yo	ou feel unwell, seek medical
First-aid measures after inhalation	: Rem	ove person to fresh air and keep comfort v the victim to rest.	able for breathir	ng. Assure fresh air breathing.
First-aid measures after skin contact	: Rem	ove affected clothing and wash all expos arm water rinse. Wash skin with plenty of		h mild soap and water, followed
First-aid measures after eye contact	: Rins	e immediately with plenty of water. Obtain ist. Rinse eyes with water as a precautior	n medical attenti	ion if pain, blinking or redness
First-aid measures after ingestion	: Rins poise	e mouth. Do NOT induce vomiting. Obtain on center or doctor/physician. Specific tre doctor if you feel unwell.	n emergency me	

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4.2. Most important symptoms and	d effects, both acute and delayed
Symptoms/injuries after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
.3. Indication of any immediate m	nedical attention and special treatment needed
reat symptomatically.	
SECTION 5: Firefighting measu	res
5.1. Extinguishing media	
suitable extinguishing media	: Foam. Dry powder. Carbon dioxide. Water spray. Sand.
Unsuitable extinguishing media	: Do not use a heavy water stream.
5.2. Special hazards arising from t	the substance or mixture
Reactivity	: The product is non-reactive under normal conditions of use, storage and transport.
5.3. Advice for firefighters	
Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any
	chemical fire. Avoid (reject) fire-fighting water to enter environment.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.
SECTION 6: Accidental release	measures
6.1. Personal precautions, protect	ive equipment and emergency procedures
6.1.1. For non-emergency personnel	A Construction of the second
Emergency procedures	: Ventilate spillage area. Evacuate unnecessary personnel.
6.1.2. For emergency responders	
Protective equipment	Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8 Exposure controls/personal protection" ".
Emergency procedures	: Ventilate area.
6.2. Environmental precautions	
Prevent entry to sewers and public waters	. Notify authorities if liquid enters sewers or public waters. Avoid release to the environment.
6.3. Methods and material for cont	tainment and cleaning up
Methods for cleaning up	: Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
Other information	Dispose of materials or solid residues at an authorized site.
6.4. Reference to other sections	
	rsonal protection. For further information refer to section 8 : Exposure-controls/personal protection"".
SECTION 7: Handling and stora	ae
7.1. Precautions for safe handling	
Precautions for safe handling	: Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands
	and other exposed areas with mild soap and water before eat, drink or smoke and when leaving work. Provide good ventilation in process area to prevent formation of vapor.
Hygiene measures	 Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Always wash hands after handling the product.
	: Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Always wash hands after handling the product.
Hygiene measures 7.2. Conditions for safe storage, ir Storage conditions	: Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Always wash hands after handling the product.
7.2. Conditions for safe storage, in Storage conditions	 Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Always wash hands after handling the product. ncluding any incompatibilities Keep only in the original container in a cool, well ventilated place away from : Keep container
7.2. Conditions for safe storage, ir	 Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Always wash hands after handling the product. ncluding any incompatibilities Keep only in the original container in a cool, well ventilated place away from : Keep container closed when not in use. Store in a well-ventilated place. Keep cool.

SECTION 8: Exposure controls/personal protection

8.1. **Control parameters**

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sodium azide (26628-22-8)				
ACGIH	ACGIH Ceiling (mg/m ³)	0.29 mg/m ³ (Sodium azide, as sodium azide; USA; Momentary value; TLV - Adopted Value)		
ACGIH	ACGIH Ceiling (ppm)	0.11 ppm (Sodium azide, as hydrazoic acid vapor; USA; Momentary value; TLV - Adopted Value)		

8.2. Exposure controls	
Appropriate engineering controls	: Ensure good ventilation of the work station.
Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or safety glasses. Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Wear approved mask.
Environmental exposure controls	: Avoid release to the environment.
Other information	: When using, do not eat, drink or smoke.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical an	d chomical proportios
Physical state	: Liquid
Color	: Colorless.
Odor	: characteristic
Odor threshold	: No data available
рН	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Solubility	 Water: Solubility in water of component(s) of the mixture : sodium azide: 42 g/100ml (17 °C) poorly soluble sodium chloride: 31.7 g/100ml (20 °C)
Log Pow	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
9.2 Other information	

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

10.2. Chemical stability

Not established.

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10.3.	Possibility of hazardous reactions
Not est	ablished.
10.4.	Conditions to avoid
Direct s	sunlight. Extremely high or low temperatures.
10.5.	Incompatible materials
strong a	acids. Strong bases.
10.6.	Hazardous decomposition products
fume. C	Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information Information on toxicological effects 11.1.

Acute toxicity

: Not classified

sodium azide (26628-22-8)	
ATE US (oral)	5.000 mg/kg body weight
ATE US (dermal)	5.000 mg/kg body weight
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
	Based on available data, the classification criteria are not met
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
	Based on available data, the classification criteria are not met
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated	: Not classified
exposure)	
Aspiration hazard	: Not classified
Potential Adverse human health effects and symptoms	: Toxic if swallowed.
Symptoms/injuries after ingestion	: Toxic if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 12: Ecological information					
12.1. Toxicity					
Ecology - general	The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.				
Ecology - water	Harmful to aquatic life with long lasting effects.				
sodium azide (26628-22-8)					
LC50 fish 1	0.8 mg/l (LC50; 96 h)				
EC50 Daphnia 1	4.2 mg/l (EC50; 48 h)				
12.2. Persistence and degradability	12.2. Persistence and degradability				
BSA Solution					
Persistence and degradability	May cause long-term adverse effects in the environment.				
sodium azide (26628-22-8)					
Persistence and degradability	Biodegradability: not applicable.				
Biochemical oxygen demand (BOD)	Not applicable				
Chemical oxygen demand (COD)	Not applicable				
ThOD	Not applicable				

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12.3. Bioaccumulative potential		
BSA Solution		
Bioaccumulative potential	Not established.	
sodium azide (26628-22-8)		
Bioaccumulative potential	Not bioaccumulative.	
12.4. Mobility in soil		
No additional information available		
12.5. Other adverse effects		
Effect on the global warming	: No known ecological damage caused by this product.	

Other information

: Avoid release to the environment.

SECTION 13: Disposal considerations		
13.1. Waste treatment methods		
Waste treatment methods	: Waste treatment methods.	
Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to	
Ecology - waste materials	: Avoid release to the environment. Hazardous waste due to toxicity.	

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

No dangerous good in sense of transport regulations

TDG

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

sodium azide (26628-22-8)		
Not listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)		
CERCLA RQ	1000 lb	
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb	

15.2. International regulations

CANADA No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

No additional information available

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

SECTION 16: Other information	ation
Revision date	: 08/12/2015
Data sources	REGULATION (EC) No 1272/2008 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 16 December 2008 on classification, labeling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006.
Other information	: None.
Full text of H-phrases::	

H300	Fatal if swallowed
H310	Fatal in contact with skin
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product