SouthernBiotech

SECTION 1: Identification of the substance or mixture and of the supplier

GHS Product Identifier	ApoScreen® Propidium Iodide (PI)
Other means of identification	N/A
Product type	Liquid
Product code	10044-01
Chemical formula	Not applicable
CAS No	Not applicable
SDS No.	2233781
Relevant Identified uses of the substance or mixture and uses advised against	Not applicable
Supplier's details	Southern Biotechnology Associates, Inc. 160 Oxmoor Boulevard Birmingham, Alabama 35209 USA Tel: (205) 945-1774 Fax: (205) 945-8768 Website: www.southernbiotech.com
Distributor and Emergency Phone No.	Refer to website for distributor and emergency phone numbers. Tel: (205) 945-1774

SECTION 2: Hazards identification

Classification of the substance or mixture

GHS-US classification

Acute Toxicity Oral - Category 5

Label elements

GHS-US labeling

Hazard pictograms (GHS-US) None

Signal word (GHS-US)		Warning
Hazard statements (GHS-US)		H303 – May be harmful if swallowed
Precautionary statements (GHS-US)		P262 – Do not get in eyes, on skin, or on clothing.
Prevention		P264 – Wash hands, forearms, and exposed areas thoroughly after handling. P270 – Do not eat, drink, or smoke when using this product.
Response		P312 – Call a POISON CENTER or doctor/physician if you feel unwell.
Storage		Not applicable
Disposal		P501 – Dispose of contents and container in accordance with all local, regional, national, and international regulations.
Other hazards		Dilute azide-containing compounds in running water before discarding to avoid accumulation of potentially explosive deposits in lead or plumbing copper. Sodium azide is rapidly absorbed through skin.

Unknown acute toxicity (GHS US) No data available

Full text of H-phrases: see section 16

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SECTION 3: Composition/information on ingredients

Substance/Mixture Mixture

Other Means of Identification Not available

CAS Number/other identifiers

CAS Number Not applicable

Ingredient Name	Product Identifier	Percentage
Sodium Azide	(CAS No.) 26628-22-8 / [EINECS(EC#)] 247-852-1	0.1%

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

SECTION 4: First aid measures

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. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

First-aid measures after eye contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention if irritation occurs.

First-aid measures after inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

First-aid measures after skin contact Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

First-aid measures after ingestion Wash out mouth with water. Remove dentures if any. 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. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. If necessary, call a poison center or physician.

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 May be harmful if swallowed.

Over-exposure signs/symptoms

Eye contact No specific data

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Inhalation	No specific data
Skin contact	No specific data
Ingestion	No specific data

Indication of any 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. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation.

SECTION 5: Firefighting measures

Extinguishing media

Suitable extinguishing media	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	None known
Special hazards arising from the substance or mixture	In a fire or if heated, a pressure increase will occur and the container may burst.
Hazardous thermal decomposition products	No specific data
Special protective actions for fire-fighters	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.
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

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

General measures: This product contains a material of biological origin. Use universal precautions during clean up procedures. Avoid breathing (vapor, mist). Use only in a well-ventilated area. Handle in accordance with good industrial hygiene and safety practice. Use personal protective equipment, see section 8.

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. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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 non- emergency 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).

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Methods and material for containment and cleaning up

Small spill: Stop leak if 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: Stop leak if without risk. Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. 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. Contaminated absorbent material may pose the same hazard as the spilled product.

Reference to other sections

See Section 1 for emergency contact information, Section 13 for waste disposal, and Section 8 for exposure controls and personal protection.

SECTION 7: Handling and storage

Precautions for safe handling

Precautions for safe handling: This product should be handled as though capable of transmitting infectious diseases. Universal precautions should be followed when using this product. Put on appropriate personal protective equipment (see Section 8). Do not ingest. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Hygiene measures: 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 and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities

Technical measures: 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.

Recommended storage temperature: 2 - 8°C

SECTION 8: Exposure controls/personal protection

Control parameters

Sodium Azide (26628-22-8)		
USA NIOSH	NIOSH REL (TWA) (mg/m^3)	Absorbed through skin. Notes NaN_3 CEIL: 0.3 mg/m^3, (NaN_3)
USA NIOSH	NIOSH REL (TWA) (ppm)	Absorbed through skin. Notes As HN_3 CEIL: 0.1 ppm, (as HN_3)
USA OSHA	OSHA PEL (TWA) (mg/m^3)	Absorbed through skin. Notes as NaN_3 CEIL: 0.3 mg/m^3, (as NaN_3)
USA OSHA	OSHA PEL (TWA) (ppm)	Absorbed through skin. Notes as HN_3 CEIL: 0.1 ppm, (as HN_3)

Exposure controls

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.

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Personal protective equipment	Protective goggles, gloves 
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. Considering the parameters specified by the glove manufacturer, check during use that the gloves are still retaining their protective properties. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated.
Body protection	Impervious clothing. 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.
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.
Eye 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.
Respiratory protection	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi- purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
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.
Other information	When using, do not eat, drink, or smoke. May contain material of animal origin.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance		
Physical state	:	Liquid
Color	:	Light orange to Red
Odor	:	Not available
Odor threshold	:	Not available
pH	:	≈7.4
Melting point	:	Not available
Boiling point	:	Not available
Flash Point	:	Not available
Burning time	:	Not applicable
Burning rate	:	Not applicable
Evaporation rate	:	Not available
Flammability (solid, gas)	:	Not available

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Lower and upper explosive (flammable) limits	:	Not available
Vapor pressure	:	Not available
Vapor density	:	Not available
Relative density	:	Not available
Solubility	:	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
SADT	:	Not available
Viscosity	:	Not available

Other information

No additional information available

SECTION 10: Stability and reactivity

Reactivity No specific test data related to reactivity available for this product or its ingredients.

Chemical Stability The product is stable.

Possibility Of Hazardous Reactions Under normal conditions of storage and use, hazardous reactions will not occur.

Conditions To Avoid No specific data.

Incompatible Materials Acids, metals, water. (Note: Over a period of time, sodium azide may react with copper, lead, brass, or solder in plumbing systems to form an accumulation of HIGHLY EXPLOSIVE compounds of lead azide and copper azide.)

Hazardous Decomposition Products Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity

Product/ingredient	Result	Species	Dose	Exposure
Sodium Azide	LD50 Oral	Mice	27 mg/kg	-
	LD50 Oral	Rat	45 mg/kg	-

Conclusion/Summary: To the best of our knowledge, the toxicological properties of this product have not been thoroughly investigated.

Skin corrosion/irritation: No data available

Serious eye damage/irritation: No data available

Respiratory or skin sensitization: No data available

Germ cell mutagenicity: No data available

Carcinogenicity:

Product/ingredient name	Result	Species	Dose	Exposure
Sodium Azide	Equivocal - Oral - TD	Rat	5460 mg/kg	78 weeks Continuous
	Equivocal - Oral - TDLo	Rat	2730 mg/kg	78 weeks Continuous

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

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Information on the likely routes of exposure: Routes of entry anticipated: Oral, Dermal, Inhalation, skin or eye contact

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: Harmful if swallowed.

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: Not available

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

Not available.

Additional Information

RTECS: VY8050000

SECTION 12: Ecological information

Toxicity

Product / ingredient name	Result	Species	Exposure
Sodium Azide	Acute EC50 0.348 mg/L Fresh water	Algae – Pseudokirchneriella subcapitata	96 hours
	Acute EC50 4.2 to 6.2 mg/L Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
	Acute LC50 9000 ug/L Fresh water	Crustaceans - Gammarus lacustris	48 hours
	Acute LC50 0.68 mg/L Fresh water	Fish - Lepomis macrochirus	96 hours
	Chronic NOEC 5600 ug/L Marine water	Algae - Macrocystis pyrifera	96 hours

Persistence and degradability Not available

Bioaccumulative potential Not available

Mobility in soil

Soil/water partition coefficient (KOC) Not available

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Other adverse effects An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

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. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: Transport information

	DOT Classification	IATA
UN number	Not regulated	Not regulated
UN proper	-	-
Transport hazard class(es)	-	-
Packing group	-	-
Environmental hazards	No	No
Additional information	-	-

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.

SECTION 15: Regulatory information

U.S. Federal regulations

TSCA: All components are listed or exempted.
Clean Water Act (CWA) 311: disodium hydrogenorthophosphate

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

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Sodium Azide	0 - 0.1	Yes	500	-	1000	-

SARA 304 RQ 1000000 lbs / 454000 kg

SARA 311/312
Classification Immediate (acute) health hazard

Composition/information on ingredients

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Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
Sodium Azide	0 - 0.1	No	No	Yes	Yes	No

State regulations

New Jersey
Sodium Azide 26628-22-8
New York
Sodium Azide 26628-22-8
Massachusetts
Sodium Azide 26628-22-8
Pennsylvania
Sodium Azide 26628-22-8
California
Sodium Azide 26628-22-8
Louisiana
Sodium Azide 26628-22-8
Minnesota
Sodium Azide 26628-22-8
Rhode Island
Sodium Azide 26628-22-8

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): All components are listed or exempted.
New Zealand Inventory of Chemicals (NZIoC): All components are listed or exempted.
Philippines inventory (PICCS): All components are listed or exempted.
Taiwan inventory (CSNN): All components are listed or exempted.

Chemical Weapons Convention List Schedule I Not listed
Chemical Weapons Convention List Schedule II Chemicals Not listed
Chemical Weapons Convention List Schedule III Chemicals Not listed

SECTION 16: Other information

Indication of changes : 30-Apr-15
Other information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

H303	May be harmful if swallowed
P262	Do not get in eyes, on skin, or on clothing
P264	Wash hands, forearms, and exposed areas thoroughly after handling.
P270	Do not eat, drink, or smoke when using this product.
P312	Call a POISON CENTER or doctor/physician if you feel unwell.
P501	Dispose of contents and container in accordance with all local, regional, national, and international regulations.

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NFPA health hazard : 1 - May be irritating
NFPA fire hazard : 0 - Not combustible
NFPA reactivity : 0 - Not reactive when mixed with water



HMIS III Rating

Health : 1 - Slight Hazard - Irritation or minor reversible injury possible
Flammability : 0 - Minimal Hazard
Physical : 0 - Minimal Hazard

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SDS US (GHS HazCom) - US Only

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