Safety Data Sheet

Section 1: Identification of the Substance/Mixture and of the Company/Undertaking

1.1 Product identifier

Product Name • **Nucleic Acid Stain**

Synonyms • SYTO 13 Nucleic Acid Stain

1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified use(s) • Identification of Regions of Interest on Tissue Slides

Use(s) advised against • This product is not intended for use in humans or animals.

1.3 Details of the supplier of the safety data sheet

Manufacturer • NanoString Technologies

530 Fairview Avenue North
Seattle, WA 98109
United States
www.nanostring.com
operations@nanostring.com

Telephone (General) • 206.378.NANO (6266)

1.4 Emergency telephone number

Manufacturer • 206.378.NANO (6266)

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 2015/830]

2.1 Classification of the substance or mixture

CLP • Not classified

2.2 Label Elements

CLP

Hazard statements • No label element(s) required

2.3 Other Hazards

CLP • According to Regulation (EC) No. 1272/2008 (CLP) this material is not considered hazardous.

UN GHS Revision 4

According to: UN Globally Harmonized System of Classification and Labelling of Chemicals (GHS): Fourth Revised Edition

2.1 Classification of the substance or mixture

UN GHS

- Not classified

2.2 Label elements

UN GHS

Hazard statements

- No label element(s) required

Precautionary statements

2.3 Other hazards

UN GHS

- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is not considered hazardous

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

2.1 Classification of the substance or mixture

OSHA HCS 2012

- Not classified

2.2 Label elements

OSHA HCS 2012

Hazard statements

- No label element(s) required

2.3 Other hazards

OSHA HCS 2012

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Canada

According to: WHMIS 2015

2.1 Classification of the substance or mixture

WHMIS 2015

- Not classified

2.2 Label elements

WHMIS 2015

Hazard statements

- No label element(s) required

Precautionary statements

2.3 Other hazards

WHMIS 2015

- In Canada, the product mentioned above is not considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

3.1 Substances

- Material does not meet the criteria of a substance.

3.2 Mixtures

Composition					
Chemical Name	**Identifiers**	**%**	**LD50/LC50**	**Classifications According to Regulation/Directive**	**Comments**
Component A	**CAS:**67-68-5 **EC Number:**200-664-3	0.4%	Ingestion/Oral-Rat LD50 • 14500 mg/kg Inhalation-Rat LC50 • >1600 mg/m³ 4 Hour(s)	**EU CLP:** Eye Irrit. 2, H319 **UN GHS Revision 4:** Flam. liq. 4; Eye Irrit. 2; Skin Irrit. 3 **OSHA HCS 2012:** Flam. Liq. 4; Eye Irrit. 2 **WHMIS 2015:** Flam. Liq. 4; Eye Irrit. 2	NDA
Sodium azide	**CAS:**26628-22-8	< 0.05%	Ingestion/Oral-Rat LD50 • 27 mg/kg Skin-Rabbit LD50 • 20 mg/kg	**EU CLP:** Union workplace exposure limit **OSHA HCS 2012:** Exposure limit	NDA

See Section 16 for full text of H-statements.

Section 4 - First Aid Measures

4.1 Description of first aid measures

Inhalation
- Move victim to fresh air. Administer oxygen if breathing is difficult. Give artificial respiration if victim is not breathing.

Skin
- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.

Eye
- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.

Ingestion
- If swallowed, rinse mouth with water (only if the person is conscious) If large quantities are swallowed, call a physician immediately.

4.2 Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to Physician
- All treatments should be based on observed signs and symptoms of distress in the patient. Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.

Section 5 - Firefighting Measures

5.1 Extinguishing media

Suitable Extinguishing Media
- LARGE FIRE: Water spray, fog or regular foam.
  SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media
- No data available.

5.2 Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
- Some may burn but none ignite readily.

Hazardous Combustion Products
- No data available.

5.3 Advice for firefighters

- Move containers from fire area if you can do it without risk.
  Wear positive pressure self-contained breathing apparatus (SCBA).
  Structural firefighters' protective clothing provides limited protection in fire situations ONLY; it is not effective in spill situations where direct contact with the substance is possible.
  Wear chemical protective clothing that is specifically recommended by the

manufacturer. It may provide little or no thermal protection.

Section 6 - Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions
- Ventilate enclosed areas. Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE)

Emergency Procedures
- Keep unauthorized personnel away. Stay upwind.

6.2 Environmental precautions

- Avoid run off to waterways and sewers.

6.3 Methods and material for containment and cleaning up

Containment/Clean-up Measures
- Stop leak if you can do it without risk.
  SMALL SPILLS: Take up with sand or other non-combustible absorbent material and place into containers for later disposal.
  LARGE SPILLS: Dike far ahead of liquid spill for later disposal.

6.4 Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

7.1 Precautions for safe handling

Handling
- Handle in accordance with good industrial hygiene and safety practice. Wear recommended Personal Protective Equipment when handling.

7.2 Conditions for safe storage, including any incompatibilities

Storage
- Keep container tightly closed and store at recommended temperature.

7.3 Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

8.1 Control parameters

Exposure Limits/Guidelines			
	Result	**ACGIH**	**NIOSH**
Sodium azide (26628-22-8)	Ceilings	0.29 mg/m3 Ceiling (as Sodium azide); 0.11 ppm Ceiling (as Hydrazoic acid vapor)	0.1 ppm Ceiling (as HN3); 0.3 mg/m3 Ceiling (as NaN3)

8.2 Exposure controls

Engineering Measures/Controls
- Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

Personal Protective Equipment

Respiratory
- In case of insufficient ventilation, wear suitable respiratory equipment.

Eye/Face
- Wear protective eyewear (goggles, face shield, or safety glasses).

Skin/Body
- No protective clothing expected to be needed.

Environmental Exposure Controls
- Follow best practice for site management and disposal of waste.

Key to abbreviations
ACGIH = American Conference of Governmental Industrial Hygiene
NIOSH = National Institute of Occupational Safety and Health

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Light green liquid with no odor.
Color	Light green.	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	Data lacking
Specific Gravity/Relative Density	Data lacking	Water Solubility	Soluble 100 %
Viscosity	Data lacking	Explosive Properties	Data lacking
Oxidizing Properties:	Data lacking		
Volatility			
Vapor Pressure	Data lacking	Vapor Density	Data lacking
Evaporation Rate	Data lacking		
Flammability			
Flash Point	Data lacking	UEL	Data lacking
LEL	Data lacking	Autoignition	Data lacking
Flammability (solid, gas)	Data lacking		
Environmental			
Octanol/Water Partition coefficient	Data lacking		

9.2 Other Information

- No additional physical and chemical parameters noted.

Section 10: Stability and Reactivity

10.1 Reactivity

- No dangerous reaction known under conditions of normal use.

10.2 Chemical stability

- Stable

10.3 Possibility of hazardous reactions

- Hazardous polymerization will not occur.

10.4 Conditions to avoid

- No data available.

10.5 Incompatible materials

- Strong oxidizing agents.

10.6 Hazardous decomposition products

- Thermal decomposition can lead to release of irritating and toxic gases and vapors. Carbon oxides.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
Component A (0.4%)	67-68-5	**Acute Toxicity:** Ingestion/Oral-Rat LD50 • 14500 mg/kg; *Sense Organs and Special Senses:Eye*:**Hemorrhage**; *Sense Organs and Special Senses:Eye*:**Conjunctive irritation**; Ingestion/Oral-Mouse TDLo • 10 mL/kg; *Behavioral*:**Changes in motor activity (specific assay)**; *Behavioral*:**Analgesia**; *Biochemical:Metabolism (intermediary)*:**Effect on inflammation or mediation of inflammation**; Ingestion/Oral-Mouse TDLo • 10.91 mL/kg; *Endocrine*:**Hypoglycemia**; *Biochemical:Enzyme inhibition, induction, or change in blood or tissue levels*:**Phosphatases**; *Biochemical:Metabolism (intermediary)*:**Other**; Inhalation-Rat LC50 • >1600 mg/m³ 4 Hour(s); Skin-Rat LD50 • 40000 mg/kg; Skin-Woman TDLo • 1800 mg/kg; *Lungs, Thorax, or Respiration*:**Dyspnea**; *Lungs, Thorax, or Respiration*:**Cyanosis**; *Blood*:**Other changes**; **Irritation:** Eye-Rabbit • 100 mg • Mild irritation; Skin-Rabbit • 100 mg • Mild irritation; **Multi-dose Toxicity:** Inhalation-Rat TCLo • 0.31 g/m³ 28 Day(s)-Intermittent; *Blood*:**Changes in spleen**; **Reproductive:** Ingestion/Oral-Hamster TDLo • 11 g/kg (7D preg); *Reproductive Effects:Specific Developmental Abnormalities*:**Central nervous system**; *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; Ingestion/Oral-Mouse TDLo • 16 mg/kg (5-9D preg); *Reproductive Effects:Effects on Fertility*:**Pre-implantation mortality**; *Reproductive Effects:Effects on Embryo or Fetus*:**Fetotoxicity (except death, e.g., stunted fetus)**; *Reproductive Effects:Specific Developmental Abnormalities*:**Musculoskeletal system**; **Tumorigen / Carcinogen:** Ingestion/Oral-Mouse TDLo • 65340 mg/kg 66 Week(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Blood*:**Leukemia**; *Skin and Appendages:Other*:**Tumors**; Ingestion/Oral-Rat TDLo • 59 g/kg 81 Week(s)-Intermittent; *Tumorigenic*:**Equivocal tumorigenic agent by RTECS criteria**; *Skin and Appendages:Other*:**Tumors**

GHS Properties	Classification
Acute toxicity	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Skin corrosion/Irritation	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Serious eye damage/Irritation	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Skin sensitization	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Respiratory sensitization	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Aspiration Hazard	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
	EU/CLP • Data lacking

Carcinogenicity	**UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Germ Cell Mutagenicity	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
Toxicity for Reproduction	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
STOT-SE	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking
STOT-RE	**EU/CLP** • Data lacking **UN GHS 4** • Data lacking **OSHA HCS 2012** • Data lacking **WHMIS 2015** • Data lacking

Potential Health Effects

Inhalation

Acute (Immediate) • Under normal conditions of use, no health effects are expected.

Chronic (Delayed) • No data available.

Skin

Acute (Immediate) • Under normal conditions of use, no health effects are expected.

Chronic (Delayed) • No data available.

Eye

Acute (Immediate) • Under normal conditions of use, no health effects are expected.

Chronic (Delayed) • No data available.

Ingestion

Acute (Immediate) • Under normal conditions of use, no health effects are expected.

Chronic (Delayed) • No data available.

Key to abbreviations

LC = Lethal Concentration
LD = Lethal Dose
TC = Toxic Concentration
TD = Toxic Dose

Section 12 - Ecological Information

12.1 Toxicity

• Material data lacking.

12.2 Persistence and degradability

• Material data lacking.

12.3 Bioaccumulative potential

- Material data lacking.

12.4 Mobility in Soil

- Material data lacking.

12.5 Results of PBT and vPvB assessment

- No PBT and vPvB assessment has been conducted.

12.6 Other adverse effects

- No studies have been found.

Section 13 - Disposal Considerations

13.1 Waste treatment methods

Product waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	14.1 UN number	14.2 UN proper shipping name	14.3 Transport hazard class(es)	14.4 Packing group	14.5 Environmental hazards
DOT	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
TDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IMO/IMDG	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA
IATA/ICAO	Not Applicable	Not Regulated	Not Applicable	Not Applicable	NDA

14.6 Special precautions for user
- None specified.

14.7 Transport in bulk according to Annex II of Marpol and the IBC Code
- Data lacking.

Section 15 - Regulatory Information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

State Right To Know				
Component	**CAS**	**MA**	**NJ**	**PA**
Component A	67-68-5	No	Yes	No
Sodium azide	26628-22-8	Yes	Yes	Yes

Inventory						
Component	**CAS**	**Canada DSL**	**Canada NDSL**	**EU EINECS**	**EU ELNICS**	**TSCA**
Component A	67-68-5	Yes	No	Yes	No	Yes
Sodium azide	26628-22-8	Yes	No	Yes	No	Yes

Canada

Labor

Canada - WHMIS 1988 - Classifications of Substances

• Sodium azide	26628-22-8	D1A
• Component A	67-68-5	B3

Canada - WHMIS 1988 - Ingredient Disclosure List

• Sodium azide	26628-22-8	1 %
• Component A	67-68-5	1 %

Environment

Canada - CEPA - Priority Substances List

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

United States

Labor

U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

Environment

U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Sodium azide	26628-22-8	1000 lb final RQ; 454 kg final RQ
• Component A	67-68-5	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Sodium azide	26628-22-8	1000 lb EPCRA RQ
• Component A	67-68-5	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Sodium azide	26628-22-8	500 lb TPQ (this material is a reactive solid, the TPQ does not default to 10000 pounds for non-powder, non-molten, non-solution form)
• Component A	67-68-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Sodium azide	26628-22-8	1.0 % de minimis concentration
• Component A	67-68-5	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

United States - California

Environment

U.S. - California - Proposition 65 - Carcinogens List

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Sodium azide	26628-22-8	Not Listed
• Component A	67-68-5	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H319 - Causes serious eye irritation

Revision Date

- 09/November/2018

Preparation Date

- 09/November/2018

Disclaimer/Statement of Liability

- The information herein is given in good faith but no warranty, expressed or implied, is made.

Key to abbreviations

NDA = No Data Available