

Safety Data Sheet



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

1.1 Product identifier

- Product Name** • **Sprint Reagent C**
Synonyms • GEN3; nCounter Sprint

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

- Relevant identified use(s)** • For Research Use Only

1.3 Details of the supplier of the safety data sheet

- Manufacturer** • NanoString Technologies
530 Fairview Avenue North, Suite 2000
Seattle, WA 98109
United States
www.nanostring.com
support@nanostring.com

Telephone (General) • 206.378.NANO

1.4 Emergency telephone number

- Manufacturer** • 206.378.NANO

Section 2: Hazards Identification

EU/EEC

According to: Regulation (EC) No 1272/2008 (CLP)/REACH 1907/2006 [amended by 453/2010]

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

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

2.1 Classification of the substance or mixture

- UN GHS
- Skin Mild Irritation 3

2.2 Label elements

UN GHS

WARNING

- Hazard statements** • Causes mild skin irritation

Precautionary statements

- Response** • If skin irritation occurs: Get medical advice/attention.

2.3 Other hazards

- UN GHS
- According to the Globally Harmonized System for Classification and Labeling (GHS) this product is considered hazardous.
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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

2.1 Classification of the substance or mixture

- WHMIS
- Other Toxic Effects - D2B

2.2 Label elements

WHMIS



- Other Toxic Effects - D2B

2.3 Other hazards

- WHMIS
- In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).
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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
2-Amino-2-hydroxymethyl-1,3-propanediol	CAS:77-86-1 EC Number:201-064-4	6% TO 9%	Ingestion/Oral-Rat LD50 • >3000 mg/kg	UN GHS: Skin Irrit. 2 EU CLP: Skin Irrit. 2, H315 OSHA HCS 2012: Skin Irrit. 2	NDA
1,4-Diazabicyclo(2,2,2) octane	CAS:280-57-9 EINECS:205-999-9	1%	Ingestion/Oral-Rat LD50 • 1400 mg/kg	UN GHS: Eye Irrit. 2; Acute Tox. 4 (orl); Skin Irrit. 2 EU CLP: Eye Irrit. 2, H319; Acute Tox. 4, H302; Skin Irrit. 2, H315 OSHA HCS 2012: Eye Irrit. 2; Acute Tox. 4 (orl); Skin Irrit. 2	NDA
Sodium azide	CAS:26628-22-8 EC Number:247-852-1 EU Index:011-004-00-7	0.01% TO 0.05%	Ingestion/Oral-Rat LD50 • 27 mg/kg Inhalation-Rat LC50 • 37 mg/m ³ Skin-Rabbit LD50 • 20 mg/kg	EU CLP: Community workplace exposure limit OSHA HCS 2012: Exposure limits	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** • Use good safety and industrial hygiene practices.

7.2 Conditions for safe storage, including any incompatibilities

- Storage** • Keep container tightly closed. Store in a cool, dry, well-ventilated place.

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 NaN ₃); 0.11 ppm Ceiling (vapor, as Hydrazoic acid)	0.1 ppm Ceiling (as HN ₃); 0.3 mg/m3 Ceiling (as NaN ₃)

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

- Wear appropriate gloves.

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 Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Colorless liquid with no odor.
Color	Colorless	Odor	Odorless
Odor Threshold	Data lacking		
General Properties			
Boiling Point	Data lacking	Melting Point/Freezing Point	Data lacking
Decomposition Temperature	Data lacking	pH	7.6 to 7.9
Specific Gravity/Relative Density	Data lacking	Water Solubility	Data lacking
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

- No data available.

10.6 Hazardous decomposition products

- No data available.

Section 11 - Toxicological Information

11.1 Information on toxicological effects

Components		
2-Amino-2-hydroxymethyl-1,3-propanediol (6% TO 9%)	77-86-1	Acute Toxicity: Ingestion/Oral-Rat LD50 • >3000 mg/kg; Irritation: Skin-Rabbit • 500 mg • Severe irritation; Skin-Rabbit • 25 % • Moderate irritation
1,4-Diazabicyclo(2,2,2)octane (1%)	280-57-9	Acute Toxicity: Ingestion/Oral-Rat LD50 • 1400 mg/kg; <i>Behavioral:Ataxia; Lungs, Thorax, or Respiration:Respiratory depression;</i> Irritation: Eye-Rabbit • 25 mg • Moderate irritation; Skin-Rabbit • 2500 µg-Open • Mild irritation

GHS Properties	Classification
Respiratory sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Serious eye damage/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Acute toxicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Aspiration Hazard	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Carcinogenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Skin Mild Irritation 3
Skin sensitization	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-RE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
STOT-SE	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking

Toxicity for Reproduction	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking OSHA HCS 2012 • Data lacking UN GHS • 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)** • Causes mild skin irritation.
- 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

LD = Lethal 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	NDA	Not Regulated	NDA	NDA	NDA
TDG	NDA	Not Regulated	NDA	NDA	NDA
IMO/IMDG	NDA	Not Regulated	NDA	NDA	NDA
IATA/ICAO	NDA	Not Regulated	NDA	NDA	NDA

14.6 Special precautions for user

- None specified.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

- Data lacking.

Section 15 - Regulatory Information**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

SARA Hazard Classifications • None

Inventory						
Component	CAS	Canada DSL	Canada NDSL	EU EINECS	EU ELNICS	TSCA
1,4-Diazabicyclo(2,2,2)octane	280-57-9	Yes	No	Yes	No	Yes
2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Yes	No	Yes	No	Yes
Sodium azide	26628-22-8	Yes	No	Yes	No	Yes

Canada**Labor****Canada - WHMIS - Classifications of Substances**

- | | | |
|---|------------|------------|
| • 1,4-Diazabicyclo(2,2,2)octane | 280-57-9 | Not Listed |
| • Sodium azide | 26628-22-8 | D1A |
| • 2-Amino-2-hydroxymethyl-1,3-propanediol | 77-86-1 | D2B |

Canada - WHMIS - Ingredient Disclosure List

- | | | |
|---|------------|------------|
| • 1,4-Diazabicyclo(2,2,2)octane | 280-57-9 | 1 % |
| • Sodium azide | 26628-22-8 | 1 % |
| • 2-Amino-2-hydroxymethyl-1,3-propanediol | 77-86-1 | Not Listed |

Environment**Canada - CEPA - Priority Substances List**

- | | | |
|---|------------|------------|
| • 1,4-Diazabicyclo(2,2,2)octane | 280-57-9 | Not Listed |
| • Sodium azide | 26628-22-8 | Not Listed |
| • 2-Amino-2-hydroxymethyl-1,3-propanediol | 77-86-1 | Not Listed |

United States

Labor

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

Environment

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	1000 lb final RQ; 454 kg final RQ
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	1000 lb EPCRA RQ
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• 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)
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	1.0 % de minimis concentration
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

United States - California

Environment

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

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

• 1,4-Diazabicyclo(2,2,2)octane	280-57-9	Not Listed
• Sodium azide	26628-22-8	Not Listed
• 2-Amino-2-hydroxymethyl-1,3-propanediol	77-86-1	Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Relevant Phrases (code & full text)

- H302 - Harmful if swallowed
- H315 - Causes skin irritation
- H319 - Causes serious eye irritation

Revision Date

- 03/November/2015

Preparation Date

- 11/May/2015

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