

Safety Data Sheet



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

1.1 Product identifier

Product Name • Buffer FD (NanoString)

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

Relevant identified use(s) • Fixation diluent

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 5

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

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Component A	NDA	100%	NDA	EU CLP: Not Classified UN GHS Revision 5: Not Classified OSHA HCS 2012: Not Classified WHMIS 2015: Not Classified	NDA

3.2 Mixtures

- Material does not meet the criteria of a mixture.

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 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

- No applicable exposure limits available for product or components.

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.

Section 9 - Physical and Chemical Properties

9.1 Information on Basic Physical and Chemical Properties

Material Description			
Physical Form	Liquid	Appearance/Description	Brown/clear liquid.
Color	Brown/clear	Odor	Data lacking
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	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

GHS Properties	Classification
Acute toxicity	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin corrosion/Irritation	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
	EU/CLP • Data lacking

Serious eye damage/Irritation	UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Skin sensitization	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Respiratory sensitization	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Aspiration Hazard	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Carcinogenicity	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Germ Cell Mutagenicity	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
Toxicity for Reproduction	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-SE	EU/CLP • Data lacking UN GHS 5 • Data lacking OSHA HCS 2012 • Data lacking WHMIS 2015 • Data lacking
STOT-RE	EU/CLP • Data lacking UN GHS • 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.

Section 12 - Ecological Information**12.1 Toxicity**

- Contains no substances known to be hazardous to the environment or not degradable in waste water treatment plants.

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**

SARA Hazard Classifications • None

Canada

Labor

Canada - List of Prohibited and Restricted Cosmetic Ingredients (The Cosmetic Ingredient Hotlist)

Not Listed

Canada - WHMIS 1988 - Classifications of Substances

Not Listed

Canada - WHMIS 1988 - Ingredient Disclosure List

Not Listed

Environment

Canada - CEPA - Priority Substances List

Not Listed

Canada - CEPA - Schedule I - List of Toxic Substances

Not Listed

Canada - CEPA - Schedule III Part 1 - Export Control List - Prohibited Substances

Not Listed

Canada - CEPA - Schedule III Part 2 - Export Control List - Substances Subject to Notification or Consent

Not Listed

Canada - CEPA - Schedule III Part 3 - Export Control List - Restricted Substances

Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Agricultural Irrigation

Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Agricultural Livestock Uses

Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Freshwater Aquatic Life

Not Listed

Canada - Council of Ministers of the Environment - Water Quality Guidelines for Marine Aquatic Life

Not Listed

Canada - DWQ (Drinking Water Quality) - AOs and OGs

Not Listed

Canada - DWQ (Drinking Water Quality) - MACs

Not Listed

Canada - DWQ (Drinking Water Quality) - Parameters without Guidelines

Not Listed

Canada - DWQ (Drinking Water Quality) - Radionuclide Maximum Acceptable Concentration

Not Listed

Canada - Environmental Emergencies

Not Listed

Canada - Federal Halocarbon Regulations

Not Listed

Canada - CEPA - Ozone Depleting Substances and Halocarbon Alternatives - Schedule 1, Table 3, Part 3 Substances

Not Listed

Canada - CEPA - Ozone Depleting Substances and Halocarbon Alternatives - Schedule 1, Table 2, Part 2 Substances

Not Listed

Canada - CEPA - Ozone Depleting Substances and Halocarbon Alternatives - Schedule 1, Table 1, Part 1 Substances

Not Listed

Other

Canada - Controlled Drugs and Substances - Class 1 Targeted Substances

Not Listed

Canada - Controlled Drugs and Substances - Class 2 Targeted Substances

Not Listed

Canada - Controlled Drugs and Substances - Class A Precursors

Not Listed

Canada - Controlled Drugs and Substances - Class B Precursors

Not Listed

Canada - Controlled Drugs and Substances - Exempt Precursors

Not Listed

Canada - Controlled Drugs and Substances - Schedule I

Not Listed

Canada - Controlled Drugs and Substances - Schedule II

Not Listed

Canada - Controlled Drugs and Substances - Schedule III

Not Listed

Canada - Controlled Drugs and Substances - Schedule IV

Not Listed

Canada - Controlled Drugs and Substances - Schedule V

Not Listed

Canada - Controlled Drugs and Substances - Schedule VII

Not Listed

Canada - Controlled Drugs and Substances - Schedule VIII

Not Listed

Europe**Environment****EU - Air Pollution (2001/379/EC) - Heavy Metal Pollutants**

Not Listed

EU - Substances Depleting the Ozone layer (1005/2009) - Annex I Substances

Not Listed

EU - Plant Protection Products (1107/2009/EC) - Active Substances

Not Listed

EU - Industrial Emissions (2010/75/EU) - Integrated Pollution Prevention and Control Directive - List of Polluting Substances

Not Listed

EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Substances - Lower-Tier Requirements

Not Listed

EU - Seveso III Directive (2012/18/EU) - Qualifying Quantities of Dangerous Substances - Higher-Tier Requirements

Not Listed

Other**Council of Europe - Flavouring Substances - Category of Flavouring Substances**

Not Listed

Council of Europe - Flavouring Substances - Proposed Practical Upper Levels for Beverages

Not Listed

Council of Europe - Flavouring Substances - Proposed Practical Upper Levels for Foods

Not Listed

Council of Europe - Flavouring Substances - Proposed Practical Upper Levels for Other Food

Not Listed

EU - Food Additives (1333/2008/EC) - Annex I - Functional Classes of Food Additives

Not Listed

EU - Food Additives (1333/2008/EC) - Annex II - Approved Colours

Not Listed

EU - Colours in Foodstuffs (Directive 95/45/EC) - Specific Purity Criteria for Colours as Food Additives

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Classification (OBSOLETE)

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Concentration Limits (OBSOLETE)

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Labelling (OBSOLETE)

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Notes - Substances and Preparations (OBSOLETE)

Not Listed

EU - CLP (1272/2008) - Annex VI - Table 3.2 - Safety Phrases (OBSOLETE)

Not Listed

EU - Endocrine Disruptors (COM (2001)262) - Candidate List of Substances

Not Listed

EU - Endocrine Disruptors (COM (2001)262) - List of Evaluated Substances and their Exposure Concern

Not Listed

EU - Export and Import Restrictions (649/2012) - Chemicals and Articles Subject to Export Ban

Not Listed

EU - Export and Import Restrictions (649/2012) - Chemicals Qualifying for PIC Notification

Not Listed

EU - Export and Import Restrictions (649/2012) - Chemicals Subject to the PIC Procedure under the Rotterdam Convention

Not Listed

EU - Export and Import Restrictions (649/2012) - Chemicals Subject to Export Notification Procedure

Not Listed

EU - Food Additives (1333/2008/EC) - Annex III - Carriers in Food Additives

Not Listed

EU - Hazardous Substances Restricted or Prohibited in Electrical Equipment (2011/65/EU) (RoHS)

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Other Ingredients

Not Listed

EU - Inventory of Cosmetic Ingredients Directive (INCI) (76/768/EEC) - Perfume and Aromatic Materials

Not Listed

EU - Narcotics (273/2004) - Drug Precursors - Annex I - Scheduled Substances

Not Listed

EU - Narcotics (273/2004) - Drug Precursors - Annex II - Threshold Quantities

Not Listed

EU - No-Longer Polymers List (67/548/EEC)

Not Listed

EU - Water Framework Directive (2000/60/EC) - List of Priority Substances - Annex X

Not Listed

EU - REACH (1907/2006) - Article 59(1) - Candidate List of Substances of Very High Concern (SVHC) for Authorisation

Not Listed

Mexico

Environment

Mexico - Ecological Criteria for Water Quality - Agricultural Irrigation

Not Listed

Mexico - Ecological Criteria for Water Quality - Drinking Water Supply Source

Not Listed

Mexico - Ecological Criteria for Water Quality - Protection of Fresh Water Aquatic Life

Not Listed

Mexico - Ecological Criteria for Water Quality - Protection of Marine Water Aquatic Life

Not Listed

Mexico - Pollutant Release and Transfer Register - Reporting Emissions - Threshold Quantities

Not Listed

Mexico - Wastewater Discharges - Maximum Limits into Coastal Waters

Not Listed

Mexico - Wastewater Discharges - Maximum Limits into Natural and Artificial Dams

Not Listed

Mexico - Wastewater Discharges - Maximum Limits into Rivers

Not Listed

Mexico - Wastewater Discharges - Maximum Limits into Soil

Not Listed

Mexico - Wastewater Discharges - Maximum Limits into Wetlands

Not Listed

United States

Labor

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

Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

Not Listed

Environment

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

United States - California

Environment

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

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

Not Listed

15.2 Chemical Safety Assessment

- No Chemical Safety Assessment has been carried out.

Section 16 - Other Information

Revision Date

- 20/February/2019

Preparation Date

- 29/March/2017

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