

## Material Safety Data Sheet

### Section 1: Identification of the Substance or Mixture

**Product Code:** 100488

**Product Name:** Revolution cfTNA Binding Buffer

**For *In Vitro* Diagnostic Use in conjunction with nRichDX Revolution cfTNA Max 20, Max 20XL, and Reagent kits.**

#### Details of the supplier of the material safety data sheet



**Address:** 15339 Barranca Parkway

Irvine, CA 92618 USA

**Phone:** +1.949.341.1980

**Fax:** +1.949.341.1982

**Support:** [info@nrichdx.com](mailto:info@nrichdx.com)

**Website:** [www.nrichdx.com](http://www.nrichdx.com)

**24 hour Emergency Response for Hazardous Materials [or Dangerous Goods] Incident, or Accident: Call CHEMTREC**

+1.703.741.5970 / 1.800.424.9300

### Section 2: Hazards Identification

#### GHS Classification

**Signal Word:** DANGER

**Hazard pictograms:**



#### **Health Hazards:**

Acute oral toxicity	Category 4
Skin Corrosion/irritation	Category 1C
Serious eye damage/eye irritation	Category 1

**Physical Hazards:** Not hazardous

#### **Environmental Hazards:**

Chronic aquatic toxicity	Category 3
--------------------------	------------

## Material Safety Data Sheet

---

### **Hazard Statements:**

H302 - Harmful if swallowed

H314 - Causes severe skin burns and eye damage

H412 - Harmful to aquatic life with long lasting effects

### **Precautionary Statements**

#### **Prevention:**

P260 - Do not breathe dust/fume/gas/mist/vapors/spray

P264 - Wash hands thoroughly after handling

P270 - Do not eat, drink or smoke when using this product

P273 - Avoid release to the environment

P280 - Wear protective gloves/protective clothing/eye protection/face protection

#### **Response:**

P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P303 + P361 + P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing

P310 - Immediately call a POISON CENTER or doctor/physician

P330 - Rinse mouth

**Storage:** Not Applicable.

#### **Disposal:**

P501 - Dispose of contents/ container to an approved waste disposal plant.

**Other hazards:** Contains a known or suspected endocrine disruptor

#### **HMIS**

Health	3
Flammability	0
Reactivity	0

## Material Safety Data Sheet

### Section 3: Composition/Information on Ingredients

Component	CAS No.	EINECS-No.	Concentration
Nonionic surfactants	-	Not Listed	15 – 24%
Guanidine thiocyanate	539-84-0	209-812-1	≥ 30 - <50%
Acrylamide	79-06-1	201-173-7	<0.01

We recommend handling all chemicals with caution.

### Section 4: First Aid Measures

#### Description of First Aid Measures

**Skin contact:** Rinse with plenty of water for at least 15 minutes. Remove and wash contaminated clothing and gloves, including the inside, before reuse. Immediate medical attention is required.

**Eye contact:** Rinse cautiously with water for several minutes, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediate medical attention is required.

**Ingestion:** Never give anything by mouth to an unconscious person. Do not induce vomiting without medical advice. Immediate medical attention is required.

**Inhalation:** Remove to fresh air. If not breathing, give artificial respiration. If conditions persist, call a physician

**Notes to Physician:** Treat Symptomatically.

#### Most important symptoms and effects, both acute and delayed:

H302 - Harmful if swallowed.

H314 - Causes severe skin burns and eye damage.

H412 - Harmful to aquatic life with long lasting effects.

**Indication of any immediate medical attention and special treatment needed:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF INHALED, remove person to fresh air and keep comfortable for breathing.

## Material Safety Data Sheet

### Section 5: Firefighting Measures

#### Extinguishing Media

**Suitable extinguishing media:** Water-spray, Carbon Dioxide (CO<sub>2</sub>), Foam, Dry chemical

**Special hazards arising from the substance or mixture:** Not known.

**Advice for fire-fighters:** Wear self-contained breathing apparatus and protective suit.

### Section 6: Accidental Release Measures

**Personal precautions, protective equipment, and emergency procedures:** Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Do not ingest. Use only with adequate ventilation or wear appropriate respirator, if during normal use the material presents a respiratory hazard.

**Environmental precautions:** Prevent product from entering drains. Do not allow material to contaminate ground water system.

**Methods and material for containment and cleaning up:** Soak up with inert absorbent material and dispose of as hazardous waste. Do not flush with water.

**Reference to other sections:** See section 8.

### Section 7: Handling and Storage

**Precautions for safe handling:** Use personal protective equipment as required. Do not get into eyes, on skin, or on clothing. Do not ingest. Use only with adequate ventilation or wear appropriate respirator, if during normal use the material presents a respiratory hazard.

**Conditions for safe storage, including any incompatibilities:** Keep in a dry, cool and well-ventilated place. Keep in properly labeled containers.

**Specific end use(s):** For in vitro diagnostic use in conjunction with nRichDX Revolution cfTNA Max 20XL, Max 20, and Reagent kits.

### Section 8: Exposure Controls/Personal Protection

#### Control Parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	EINECS-No
Nonionic surfactants	None	None	None
Guanidine thiocyanate	None	None	None
Acrylamide	0.3 mg/m <sup>3</sup>	None	None

**Engineering measures:** Ensure adequate ventilation, especially in confined areas.

## Material Safety Data Sheet

### Exposure Controls

**Respiratory protection:** In case of insufficient ventilation, wear respirators and components tested under appropriate government standards

**Hand protection:** Wear suitable gloves. Glove material: Compatible chemical-resistant gloves.

**Eye protection:** Tight sealing safety goggles.

**Skin and Body Protection:** Wear laboratory coat for body protection.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice.

**Environmental exposure controls:** Prevent from entering drains. Do not allow material to contaminate ground water.

### Section 9: Physical and Chemical Properties

#### Information on Basic Physical and Chemical Properties

<b>Appearance:</b>	Liquid
<b>Odor:</b>	No information available.
<b>Odor Threshold:</b>	Mixture has not been tested.
<b>pH:</b>	4 - 6
<b>Melting point/melting range:</b>	Mixture has not been tested.
<b>Boiling point/boiling range:</b>	Mixture has not been tested.
<b>Flash point:</b>	Mixture has not been tested.
<b>Autoignition temperature:</b>	Mixture has not been tested.
<b>Decomposition temperature:</b>	Mixture has not been tested.
<b>Evaporation rate:</b>	No data.
<b>Flammability (solid, gas):</b>	Not applicable.
<b>Upper explosion limit:</b>	Mixture has not been tested.
<b>Lower explosion limit:</b>	Mixture has not been tested.
<b>Vapor pressure:</b>	Mixture has not been tested.
<b>Relative density:</b>	Mixture has not been tested.
<b>Specific gravity:</b>	No data.
<b>Solubility:</b>	Soluble in water.
<b>Partition coefficient: n-octanol/water</b>	No data.
<b>Viscosity:</b>	Mixture has not been tested.
<b>Explosive properties:</b>	Mixture has not been tested.
<b>Oxidizing properties:</b>	Mixture has not been tested.
<b>Other information:</b>	No data.

## Material Safety Data Sheet

### Section 10: Stability and Reactivity

**Reactivity:** Not known

**Chemical stability:** Stable under normal conditions.

**Possibility of hazardous reactions:** Hazardous reaction has not been reported.

**Conditions to avoid:** Contact with acids or bleach liberates toxic gases. DO NOT ADD acids or bleach to any liquid wasters containing this product.

**Incompatible materials:** No dangerous reaction known under normal conditions of use.

**Hazardous decomposition products:** No known hazardous decomposition products.

### Section 11: Toxicological Information

#### Information on Toxicological Effects

Chemical Name	LD50 (oral – rat/mouse)	LD50 (dermal – rat/mouse)	LC50 (inhalation – rat/mouse)
Nonionic surfactants	=1800 mg/kg (Rat)=4190 mg/kg (Rat)=1700 mg/kg Rat	No data available	No data available
Guanidine thiocyanate	503 mg/kg	No data available	No data available
Acrylamide	= 124 mg/kg (Rat)	No data available	No data available

#### Physical Routes of Exposure

**Skin Corrosion/Irritation:** Causes severe burns.

**Serious eye damage/irritation:** Causes serious eye damage.

**Respiratory or skin sensitization:** Conclusive but not sufficient for classification.

**Specific Target Organ Toxicity – single exposure:** Conclusive but not sufficient for classification.

**Specific Target Organ Toxicity – repeated exposure:** Conclusive but not sufficient for classification.

**Carcinogenicity:** Conclusive but not sufficient for classification.

**Mutagenicity:** Conclusive but not sufficient for classification.

**Reproductive toxicity:** Conclusive but not sufficient for classification.

**Aspiration hazard:** Conclusive but not sufficient for classification.

## Material Safety Data Sheet

### Section 12: Ecological Information

#### Ecotoxicity

Chemical Name	Algae Toxicity	Daphnia and other Aquatic Invertebrates Toxicity	Fish Toxicity	Microtox Data	Log Pow
Nonionic surfactants	No data available	No data available	No data available	No data available	No data available
Guanidine thiocyanate	No data available	No data available	No data available	No data available	No data available
Acrylamide	No data available	Dalphine magna EC50=98mg/L (48h)	No data available	No data available	logPow -1.24

**Persistence and degradability:** No information available.

**Bioaccumulative potential:** No data available

**Results of PBT and vPvB assessment:** No data available

**Other adverse effects:** Contains a known or suspected endocrine disruptor.

### Section 13: Disposal Considerations

#### Waste Treatment Methods

The generation of waste should be avoided or minimized wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in according to approved disposal technique. Disposal of this product, its solutions or of any by-products, shall comply with the requirements of all applicable local, regional or national/federal regulations.

### Section 14: Transport Information

**IAT/ADR/DOT-US/IMDG:** Classified as dangerous in the meaning of transport regulations.

**UN number:** 1760

**UN proper shipping name:** Corrosive liquid, n.o.s. (Guanidine thiocyanate)

**Transport hazard class(es):** 8

**Packing group:** III

**Environmental hazards:** Yes.

**Special precautions for user:** Not applicable.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not applicable.

## Material Safety Data Sheet

### Section 15: Regulatory Information

Component	US TSCA
Guanidine thiocyanate (30 – 50)	Listed
Acrylamide 79-06-1 (<0.01)	Listed
Nonionic surfactant (15-24)	Listed

### US Federal Regulations

**SARA 313:** This product contains the following toxic chemical(s) subject to the notification requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986. This law requires certain manufacturers to report on annual emissions of specified chemicals and chemical categories. Please note that if you repackage, or otherwise redistribute, this product to industrial customers, a notice similar to this one should be sent to those customers.

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>SARA 313 – Threshold Values</u>
Acrylamide	79-06-1	< 0.01	0.1

### Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product contains the following HAPs:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>HAPS data</u>
Acrylamide	79-06-1	< 0.01	Present

### US State Regulations

**California Proposition 65:** This product contains the following Proposition 65 chemicals:

<u>Chemical Name</u>	<u>CAS-No</u>	<u>Weight %</u>	<u>Category</u>
Acrylamide	79-06-1	< 0.01	Carcinogen Developmental

### **WHMIS Hazard Class:**

E-Corrosive material



This product has been classified in accordance with the hazard criteria of the controlled Products Regulations (CPR) and the SDS contains all the information required by the CPR.

## Material Safety Data Sheet

### Section 16: Other Information

**Reason for revision:** Original version

**Revision number:** A

**Revision date:** 17-December-2019

**Use:** For *In Vitro* Diagnostic Use

**References:**

- ECHA: <http://echa.europa.eu/>
- TOXNET: <http://toxnet.nlm.nih.gov/>
- eChemPortal: <http://www.echemportal.org/>
- LOLI database: <https://www.chemadvisor.com/loli-database>

"The above information was acquired by diligent search and/or investigation and the recommendations are based on prudent application of professional judgment. The information shall not be taken as being all inclusive and is to be used only as a guide. All materials and mixtures may present unknown hazards and should be used with caution. Since the company cannot control the actual methods, volumes, or conditions of use , the Company shall not be held liable for any damages or losses resulting from the handling or from contact with the product described herein.

THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRANTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE"

End of Safety Data Sheet