

# SAFETY DATA SHEET

Revision Date 06/14/2019



## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### Identification of the substance/preparation

**Product code** F0302  
**Product name** PureBind Beads

### Company/Undertaking Identification

Ocean NanoTech, LLC.  
7964 Arjons Dr. Suite G  
San Diego, CA 92126  
858-689-8808  
[info@oceannanotech.com](mailto:info@oceannanotech.com)

**For Research Use Only. Not for use in diagnostic procedures.**

## SECTION 2: Hazards identification

### GHS - Classification

**Signal Word**  
None

**Hazard pictograms**  
None

**Health hazards**  
Not classified

**Physical hazards**  
Not classified

**Environmental hazards**  
Not classified

**Hazard Statements**  
Not Applicable

**Precautionary Statements**  
**Prevention**  
Not Applicable

**Response**  
Not Applicable

**Storage**  
Not Applicable

**Disposal**  
Not Applicable

**Other hazards**

Not Applicable

**HMIS**

Health	0
Flammability	0
Reactivity	0

**SECTION 3: Composition/information on Ingredients**

Component	CAS-No	EINECS-No	Weight %
SODIUM AZIDE 26628-22-8 ( < 0.1 )	26628-22-8	-	< 0.1

The product contains no substances which at their given concentration, are considered to be hazardous to health.

**SECTION 4: First aid measures**

<b>Skin contact</b>	Rinse cautiously with water for several minutes. Immediate medical attention is not required.
<b>Eye contact</b>	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
<b>Ingestion</b>	Not expected to present a significant ingestion hazard under anticipated conditions of normal use. If you feel unwell, seek medical advice.
<b>inhalation</b>	Not expected to be an inhalation hazard under anticipated conditions of normal use of this material. Consult a physician if necessary.
<b>Most important symptoms and effects, both acute and delayed</b>	Not Applicable
<b>Notes to Physician</b>	Treat symptomatically.

**SECTION 5: Firefighting measures****Extinguishing media**

**Suitable extinguishing media** Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical. **Unsuitable extinguishing media** No information available.

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

**Advice for fire-fighters** Standard procedure for chemical fires.

**SECTION 6: Accidental release measures****Personal precautions, protective equipment and emergency procedures**

Ensure adequate ventilation. Always wear recommended Personal Protective Equipment. Use personal protection equipment. See Section 8 for more detail.

**Environmental precautions**

No special environmental precautions required.

**Methods and material for containment and cleaning up**

Soak up with inert absorbent material.

**Reference to other sections** See section 8 for more information.

### SECTION 7: Handling and storage

#### Precautions for safe handling

Use personal protective equipment as required. .

#### 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)

Research Use Only. Not for use in diagnostic procedures.

### SECTION 8: Exposure controls/personal protection

#### Control parameters

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
SODIUM AZIDE	None	None	None	None

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

#### Exposure controls

##### Personal Protective Equipment

**Respiratory protection** In case of insufficient ventilation wear respirators and components tested and approved 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 suitable protective clothing

**Hygiene measures** Handle in accordance with good industrial hygiene and safety practice

##### Environmental exposure controls

No special environmental precautions required.

### SECTION 9: Physical and chemical properties

#### Information on basic physical and chemical properties

**Appearance** suspension

**Odor** No data available

**Melting point / melting range** °C Mixture has not been tested

°F Mixture has not been tested

**Boiling point / boiling range** °C Mixture has not been tested

°F Mixture has not been tested

**Flash point** °C Mixture has not been tested

°F Mixture has not been tested

**Autoignition Temperature** °C Mixture has not been tested

°F Mixture has not been tested

**Decomposition temperature** °C Mixture has not been tested

°F Mixture has not been tested

**Evaporation rate** No data available

<b>Flammability (solid, gas)</b>	No data available
<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 available
<b>Solubility</b>	No data available
<b>Partition coefficient: n-octanol/water</b>	No data available
<b>Explosive properties</b>	Mixture has not been tested
<b>Other information</b>	No data available

#### SECTION 10: Stability and reactivity

<b>Reactivity</b>	Sodium azide may react with lead and copper plumbing to form highly explosive metal azides.
<b>Chemical stability</b>	Stable under normal conditions.
<b>Possibility of hazardous reactions</b>	Hazardous reaction has not been reported.
<b>Conditions to avoid</b>	No information available.
<b>Incompatible materials</b>	No dangerous reaction known under conditions of normal use.
<b>Hazardous decomposition products</b>	No data available.

#### SECTION 11: Toxicological information

##### Information on toxicological effects

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
SODIUM AZIDE	= 27 mg/kg (Rat)	No data available	No data available

##### Principal Routes of Exposure

<b>Irritation</b>	Conclusive but not sufficient for classification
<b>Corrosivity</b>	Conclusive but not sufficient for classification
<b>Sensitization</b>	Conclusive but not sufficient for classification
<b>STOT - Single Exposure</b>	Conclusive but not sufficient for classification
<b>STOT - Repeated Exposure</b>	Conclusive but not sufficient for classification
<b>Carcinogenicity</b>	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

**SECTION 12: Ecological information**

**Toxicity**

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
<b>SODIUM AZIDE</b>	No data available	No data available	No data available	No data available	No data available

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

**potential** No information available.

**Results of PBT and vPvB assessment**

This mixture does not contain any substances that are assessed to be a PBT or vPvB.

**Other adverse effects** No information available.

**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 accordance with 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**

**IATA / ADR / DOT-US / IMDG**

Not regulated in the meaning of transport regulations.

**UN number** Not Applicable

**UN proper shipping name** Not Applicable

**Transport hazard class(es)** Not Applicable

**Packing group** Not Applicable

**Environmental hazards** Not Applicable

**Special precautions for user** Not Applicable

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

Not Applicable.

**SECTION 15: Regulatory information**

Component	US TSCA
SODIUM AZIDE 26628-22-8 (< 0.1)	Listed

## US Federal Regulations

### **SARA 313**

This product is not regulated by SARA.

Chemical Name CAS-No Weight % SARA 313 - Threshold Values SODIUM AZIDE 26628-22-8 < 0.1 1.0

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

This product does not contains HAPs.

## US State Regulations

### **California Proposition 65**

This product does not contain any Proposition 65 chemicals.

### WHMIS Hazard Class

Non-controlled

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

## SECTION 16: Other information

**Reason for revision** SDS sections updated.

**Revision number** 1.0

**Revision date** 18-Feb-2019

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### 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 as described herein. THE INFORMATION IN THIS SDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPPOSE"

**End of Safety Data Sheet**

# SAFETY DATA SHEET

Revision Date 06/14/2019



## 1. Identification of the substance/mixture and of the company/undertaking

### Identification of the substance/preparation

**Product code** R1247  
**Product name** Lysis Buffer

### Company/Undertaking Identification

Ocean NanoTech, LLC.  
7964 Arjons Dr. Suite G  
San Diego, CA 92126  
858-689-8808  
[info@oceannanotech.com](mailto:info@oceannanotech.com)

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## 2. Hazards identification

### GHS - Classification

#### Signal Word

**WARNING**



### Health Hazard

Acute oral toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2

### Physical Hazards

#### Hazard statements

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

### Precautionary statements

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

## Principle Routes of Exposure/

### Potential Health effects

Eyes	Irritating to eyes.
Skin	Irritating to skin.
Inhalation	May be harmful by inhalation. Harmful if
Ingestion	swallowed.

### Specific effects

Carcinogenic effects	none
Mutagenic effects	none
Reproductive toxicity	none
Sensitization	none
Target Organ Effects	none

### HMIS

Health	2
Flammability	0
Reactivity	0

### 3. Composition/information on ingredients

Chemical Name	CAS-No	EINECS-No	Weight %
Guanidine hydrochloride	50-01-1	200-002-3	< 70
Tween 20	9005-64-5	500-018-3	< 30

We recommend handling all chemicals with caution.

### 4. First aid measures

<b>Skin contact</b>	Wash off immediately with plenty of water. If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If eye irritation persists, consult a specialist.
<b>Ingestion</b>	Rinse mouth. Call a physician or Poison Control Centre immediately.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
<b>Notes to physician</b>	Treat symptomatically.

### 5. Fire-fighting measures

#### Suitable extinguishing media

#### Special protective equipment for firefighters

Dry chemical. Water spray.  
Wear self-contained breathing apparatus and protective suit.

### 6. Accidental release measures

**Personal precautions** Use personal protective equipment. Ensure adequate ventilation. **Methods for cleaning up** Soak up with inert absorbent material.

### Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.



## 7. Handling and storage

### Handling Storage

Always wear recommended Personal Protective Equipment.  
Keep in properly labelled containers. Keep in a dry, cool and well-ventilated place.

## 8. Exposure controls/personal protection

### Exposure limits

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Guanidine hydrochloride	none	none	none	none
Tween 20	none	none	none	none

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

### Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

**Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection** Impervious gloves.

**Eye protection** Goggles.

**Skin and body protection.** Lightweight protective clothing.

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

### Environmental exposure controls

Prevent product from entering drains.

## 9. Physical and chemical properties

### General Information

<b>Form</b>	liquid
<b>Appearance</b>	No information available
<b>Odor</b>	No information available
<b>Boiling Point/Range</b>	°C no data      °F no data
<b>Melting point/range</b>	available      available
<b>Flash point</b>	°C no data      °F no data
<b>Autoignition temperature</b>	available      available
	°C no data      °F no data
	available      available
	°C no data      °F no data
	available      available
<b>Oxidizing properties</b>	No information available. no data available
<b>Water solubility</b>	6.5
<b>pH VALUE</b>	

## 10. Stability and reactivity

<b>Stability</b>	Stable under normal conditions.
<b>Materials to avoid</b>	No information available.
<b>Hazardous decomposition products</b>	No information available.
<b>polymerization</b>	Hazardous polymerization does not occur.

### 11. Toxicological information

#### Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Guanidine hydrochloride	no data available	> 2000 mg/kg (Rabbit)	no data available
Tween 20	= 36700 µL/kg (Rat)	no data available	no data available

#### Principle Routes of Exposure/

#### Potential Health effects

	Irritating to eyes.
<b>Eyes</b>	Irritating to skin.
<b>Skin</b>	May be harmful by inhalation.
<b>Inhalation</b>	Harmful if swallowed.
<b>Ingestion</b>	
<b>Carcinogenic effects</b>	none
<b>Mutagenic effects</b>	none
<b>Reproductive toxicity</b>	none
<b>Sensitization</b>	none
<b>Target Organ Effects</b>	none

### 12. Ecological information

<b>Ecotoxicity effects</b>	No information available.
<b>Mobility</b>	No information available.
<b>Biodegradation</b>	No information available.
<b>Bioaccumulation</b>	No information available.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Guanidine hydrochloride 50-01-1					logPow<=-1.7

### 13. Disposal considerations

Dispose of in accordance with local regulations.

### 14. Transport information

**IATA**

**Proper shipping name**

**Hazard class**

**Subsidiary Class**

**Packing group**

**UN-No**

Not classified as dangerous in the meaning of transport regulations none none none none

15. Regulatory information	
Component	TSCA
Guanidine hydrochloride 50-01-1 ( 30-60 )	Listed
Tween 20 9005-64-5 ( 10 - 30 )	Listed

**U.S. Federal Regulations**

**SARA 313**

This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)** This product does not contains HAPs.

**U.S. State Regulations**

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Guanidine hydrochloride	-	-	-	-	-
Tween 20	-	-	-	-	-

**California Proposition 65**

This product does not contain chemicals listed under Proposition 65

**WHMIS Hazard Class**

D2B Toxic materials



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

**16. Other information**

**Reason for Revision** not applicable. (M)SDS sections updated.

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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 as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE.

**End of Safety Data Sheet**

# SAFETY DATA SHEET

Revision Date 06/14/2019



## 1. Identification of the substance/mixture and of the company/undertaking

### Identification of the substance/preparation

**Product code** R0510  
**Product name** Elution Buffer

### Company/Undertaking Identification

Ocean NanoTech, LLC.  
7964 Arjons Dr. Suite G  
San Diego, CA 92126  
858-689-8808  
[info@oceannanotech.com](mailto:info@oceannanotech.com)

**For research use only. Not intended for human or animal diagnostic or therapeutic uses.**

## 2. Hazards identification

### GHS - Classification

**Signal Word** not hazardous  
**Health Hazard** not hazardous  
**Physical Hazards** not hazardous

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation with susceptible persons.  
**Skin** May cause skin irritation in susceptible persons.  
**Inhalation** May be harmful by inhalation.  
**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** none  
**Mutagenic effects** none  
**Reproductive toxicity** none  
**Sensitization** none

**Target Organ Effects** No known effects under normal use conditions.

#### **HMIS**

Health	0
Flammability	0
Reactivity	0

## 3. Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

#### 4. First aid measures

<b>Skin contact</b>	Rinse with plenty of water. If symptoms arise, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
<b>Notes to physician</b>	Treat symptomatically.

#### 5. Fire-fighting measures

**Suitable extinguishing media** Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

**Special protective equipment for firefighters** Wear self-contained breathing apparatus and protective suit.

#### 6. Accidental release measures

<b>Personal precautions</b>	Use personal protective equipment.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

#### 7. Handling and storage

<b>Handling</b>	Always wear recommended Personal Protective Equipment. No special handling advice required.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place.

#### 8. Exposure controls/personal protection

#### Exposure limits

We are not aware of any national exposure limit.

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

#### Personal protective equipment

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

**Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection** Impervious gloves.

**Eye protection** Safety glasses with side-shields.

**Skin and body protection.** Lightweight protective clothing.

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

**Environmental exposure controls** Prevent product from entering drains.

## 9. Physical and chemical properties

### General Information

Form	liquid	
Appearance	No information available	
Odor	No information available	
Boiling Point/Range	°C no data available	°F no data available
Melting point/range	°C no data available	°F no data available
Flash point	°C no data available	°F no data available
Autoignition temperature	°C no data available	°F no data available
Oxidizing properties	No information available.	
Water solubility	soluble	
pH VALUE	8	

## 10. Stability and reactivity

Stability	Stable under normal conditions.
Materials to avoid	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	None under normal use
Polymerization	Hazardous polymerization does not occur.

## 11. Toxicological information

### Acute toxicity

not hazardous

### Principle Routes of Exposure/

### Potential Health effects

Eyes	none
Skin	none
Inhalation	none
Ingestion	none
Carcinogenic effects	none
Mutagenic effects	none
Reproductive toxicity	none
Sensitization	none

### Target Organ Effects

May cause eye irritation with susceptible persons.

May cause skin irritation in susceptible persons.

May be harmful by inhalation. May be harmful if swallowed.

No known effects under normal use conditions.

## 12. Ecological information

<b>Ecotoxicity effects</b>	No information available.
<b>Mobility</b>	No information available.
<b>Biodegradation</b>	Inherently biodegradable
<b>Bioaccumulation</b>	Does not bioaccumulate.

## 13. Disposal considerations

Dispose of in accordance with local regulations.

## 14. Transport information

### IATA

<b>Proper shipping name</b>	Not classified as dangerous in the meaning of transport regulations
<b>Hazard class</b>	none
<b>Subsidiary Class</b>	none
<b>Packing group</b>	none
<b>UN-No</b>	None

## 15. Regulatory information

### U.S. Federal Regulations

#### **SARA 313**

This product is not regulated by SARA.

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

This product does not contains HAPs.

### U.S. State Regulations

#### **California Proposition 65**

This product does not contain chemicals listed under Proposition 65



## **WHMIS Hazard Class**

Non-controlled

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

### **16. Other information**

**Reason for Revision** (M)SDS sections updated.

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**End of Safety Data Sheet**

# SAFETY DATA SHEET

Revision Date 06/14/2019



## 1. Identification of the substance/mixture and of the company/undertaking

### Identification of the substance/preparation

**Product code** R2355  
**Product name** Wash Buffer 2

### Company/Undertaking Identification

Ocean NanoTech, LLC.  
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858-689-8808  
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For research use only. Not intended for human or animal diagnostic or therapeutic uses.

## 2. Hazards identification

### GHS - Classification

**Signal Word** not hazardous  
**Health Hazard** not hazardous  
**Physical Hazards** not hazardous

### Principle Routes of Exposure/

#### Potential Health effects

**Eyes** May cause eye irritation with susceptible persons.  
**Skin** May cause skin irritation in susceptible persons.  
**Inhalation** May be harmful by inhalation.  
**Ingestion** May be harmful if swallowed.

#### Specific effects

**Carcinogenic effects** none  
**Mutagenic effects** none  
**Reproductive toxicity** none  
**Sensitization** none

**Target Organ Effects** No known effects under normal use conditions.

#### **HMIS**

Health	0
Flammability	0
Reactivity	0

## 3. Composition/information on ingredients

The product contains no substances which at their given concentration, are considered to be hazardous to health. We recommend handling all chemicals with caution.

#### 4. First aid measures

<b>Skin contact</b>	Rinse with plenty of water. If symptoms arise, call a physician.
<b>Eye contact</b>	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. If symptoms persist, call a physician. Do not induce vomiting without medical advice.
<b>Inhalation</b>	Move to fresh air. If symptoms persist, call a physician. If not breathing, give artificial respiration.
<b>Notes to physician</b>	Treat symptomatically.

#### 5. Fire-fighting measures

**Suitable extinguishing media** Water spray. Carbon dioxide (CO<sub>2</sub>). Foam. Dry chemical.

**Special protective equipment for firefighters** Wear self-contained breathing apparatus and protective suit.

#### 6. Accidental release measures

<b>Personal precautions</b>	Use personal protective equipment.
<b>Methods for cleaning up</b>	Soak up with inert absorbent material.

#### Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

#### 7. Handling and storage

<b>Handling</b>	Always wear recommended Personal Protective Equipment. No special handling advice required.
<b>Storage</b>	Keep in a dry, cool and well-ventilated place.

#### 8. Exposure controls/personal protection

#### Exposure limits

We are not aware of any national exposure limit.

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

#### **Personal protective equipment**

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

**Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection** Impervious gloves.

**Eye protection** Safety glasses with side-shields.

**Skin and body protection.** Lightweight protective clothing.

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

**Environmental exposure controls** Prevent product from entering drains.

## 9. Physical and chemical properties

### General Information

Form	liquid	
Appearance	No information available	
Odor	No information available	
Boiling Point/Range	°C no data available	°F no data available
Melting point/range	°C no data available	°F no data available
Flash point	°C no data available	°F no data available
Autoignition temperature	°C no data available	°F no data available
Oxidizing properties	No information available.	
Water solubility	soluble	
pH VALUE	8	

## 10. Stability and reactivity

Stability	Stable under normal conditions.
Materials to avoid	No dangerous reaction known under conditions of normal use.
Hazardous decomposition products	None under normal use
Polymerization	Hazardous polymerization does not occur.

## 11. Toxicological information

### Acute toxicity

not hazardous

### Principle Routes of Exposure/

### Potential Health effects

Eyes	none
Skin	none
Inhalation	none
Ingestion	none
Carcinogenic effects	none
Mutagenic effects	none
Reproductive toxicity	none
Sensitization	none

### Target Organ Effects

May cause eye irritation with susceptible persons.

May cause skin irritation in susceptible persons.

May be harmful by inhalation. May be harmful if swallowed.

No known effects under normal use conditions.

## 12. Ecological information

<b>Ecotoxicity effects</b>	No information available.
<b>Mobility</b>	No information available.
<b>Biodegradation</b>	Inherently biodegradable
<b>Bioaccumulation</b>	Does not bioaccumulate.

## 13. Disposal considerations

Dispose of in accordance with local regulations.

## 14. Transport information

### IATA

<b>Proper shipping name</b>	Not classified as dangerous in the meaning of transport regulations
<b>Hazard class</b>	none
<b>Subsidiary Class</b>	none
<b>Packing group</b>	none
<b>UN-No</b>	None

## 15. Regulatory information

### U.S. Federal Regulations

#### **SARA 313**

This product is not regulated by SARA.

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

This product does not contain HAPs.

### U.S. State Regulations

#### **California Proposition 65**

This product does not contain chemicals listed under Proposition 65

## **WHMIS Hazard Class**

Non-controlled

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

### **16. Other information**

**Reason for Revision** (M)SDS sections updated.

For research use only. Not intended for human or animal diagnostic or therapeutic uses.

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 as described herein. THE INFORMATION IN THIS MSDS DOES NOT CONSTITUTE A WARRENTY, EXPRESSED OR IMPLIED, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PUPOSE.

**End of Safety Data Sheet**

# SAFETY DATA SHEET

Revision Date 06/14/2019



## 1. Identification of the substance/mixture and of the company/undertaking

### Identification of the substance/preparation

**Product code** R2340  
**Product name** Wash Buffer 1

### Company/Undertaking Identification

Ocean NanoTech, LLC.  
7964 Arjons Dr. Suite G  
San Diego, CA 92126  
858-689-8808  
info@oceannanotech.com

**For research use only. Not for human or animal therapeutic or diagnostic use.**

## 2. Hazards identification

### GHS - Classification

#### Signal Word

**WARNING**



### Health Hazard

Acute oral toxicity	Category 4
Skin Corrosion/Irritation	Category 2
Serious Eye Damage/Eye Irritation	Category 2

### Physical Hazards

#### Hazard statements

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

### Precautionary statements

P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water  
P301 + P330 + P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting

## Principle Routes of Exposure/

### Potential Health effects

<b>Eyes</b>	Irritating to eyes.
<b>Skin</b>	Irritating to skin.
<b>Inhalation</b>	May be harmful by inhalation. Harmful if
<b>Ingestion</b>	swallowed.

### Specific effects

<b>Carcinogenic effects</b>	none
<b>Mutagenic effects</b>	none
<b>Reproductive toxicity</b>	none
<b>Sensitization</b>	none
<b>Target Organ Effects</b>	none

### **HMIS**

Health	2
Flammability	0
Reactivity	0

### **3. Composition/information on ingredients**

Chemical Name	CAS-No	EINECS-No	Weight %
Guanidine hydrochloride	50-01-1	200-002-3	<16

We recommend handling all chemicals with caution.

### **4. First aid measures**

<b>Skin contact</b>	Wash off immediately with plenty of water. If symptoms persist, call a physician.
<b>Eye contact</b>	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. If eye irritation persists, consult a specialist.
<b>Ingestion</b>	Rinse mouth. Call a physician or Poison Control Centre immediately.
<b>Inhalation</b>	Move to fresh air. If not breathing, give artificial respiration. If symptoms persist, call a physician.
<b>Notes to physician</b>	Treat symptomatically.

### **5. Fire-fighting measures**

#### **Suitable extinguishing media**

#### **Special protective equipment for firefighters**

Dry chemical. Water spray.  
Wear self-contained breathing apparatus and protective suit.

### **6. Accidental release measures**

**Personal precautions** Use personal protective equipment. Ensure adequate ventilation. **Methods for cleaning up** Soak up with inert absorbent material.

### Environmental precautions

Prevent further leakage or spillage if safe to do so.

See Section 12 for additional information.

### **7. Handling and storage**



**Handling  
Storage**

Always wear recommended Personal Protective Equipment.  
Keep in properly labelled containers. Keep in a dry, cool and well-ventilated place.

**8. Exposure controls/personal protection**

**Exposure limits**

Chemical Name	OSHA PEL	OSHA PEL (Ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Guanidine hydrochloride	none	none	none	none

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

**Personal protective equipment**

Personal Protective Equipment requirements are dependent on the user institution's risk assessment and are specific to the risk assessment for each laboratory where this material may be used.

**Respiratory protection** In case of insufficient ventilation wear suitable respiratory equipment.

**Hand protection** Impervious gloves.

**Eye protection** Goggles.

**Skin and body protection.** Lightweight protective clothing.

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

**Environmental exposure controls** Prevent product from entering drains.

**9. Physical and chemical properties**

**General Information**

<b>Form</b>	liquid
<b>Appearance</b>	No information available
<b>Odor</b>	No information available
<b>Boiling Point/Range</b>	°C no data      °F no data
<b>Melting point/range</b>	available      available
<b>Flash point</b>	°C no data      °F no data
<b>Autoignition temperature</b>	available      available
	°C no data      °F no data
	available      available
	°C no data      °F no data
	available      available
<b>Oxidizing properties</b>	No information available.
<b>Water solubility</b>	no data available
<b>pH VALUE</b>	6.5

**10. Stability and reactivity**

<b>Stability</b>	Stable under normal conditions.
<b>Materials to avoid</b>	No information available.
<b>Hazardous decomposition products</b>	No information available.
<b>polymerization</b>	Hazardous polymerization does not occur.

### 11. Toxicological information

#### Acute toxicity

Chemical Name	LD50 (oral, rat/mouse)	LD50 (dermal, rat/rabbit)	LC50 (inhalation, rat/mouse)
Guanidine hydrochloride	no data available	> 2000 mg/kg (Rabbit)	no data available

#### Principle Routes of Exposure/

<b>Potential Health effects</b>	Irritating to eyes.
<b>Eyes</b>	Irritating to skin.
<b>Skin</b>	May be harmful by inhalation.
<b>Inhalation</b>	Harmful if swallowed.
<b>Ingestion</b>	
<b>Carcinogenic effects</b>	none
<b>Mutagenic effects</b>	none
<b>Reproductive toxicity</b>	none
<b>Sensitization</b>	none
<b>Target Organ Effects</b>	none

### 12. Ecological information

<b>Ecotoxicity effects</b>	No information available.
<b>Mobility</b>	No information available.
<b>Biodegradation</b>	No information available.
<b>Bioaccumulation</b>	No information available.

Chemical Name	Freshwater Algae Data	Water Flea Data	Freshwater Fish Species Data	Microtox Data	log Pow
Guanidine hydrochloride 50-01-1					logPow<=-1.7

### 13. Disposal considerations

Dispose of in accordance with local regulations.

### 14. Transport information

#### IATA

<b>Proper shipping name</b>	
<b>Hazard class</b>	
<b>Subsidiary Class</b>	
<b>Packing group</b>	
<b>UN-No</b>	Not classified as dangerous in the meaning of transport regulations none none none none

## 15. Regulatory information

Component	TSCA
Guanidine hydrochloride 50-01-1 ( 30-60 )	Listed

### U.S. Federal Regulations

#### SARA 313

This product is not regulated by SARA.

**Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)** This product does not contains HAPs.

### U.S. State Regulations

Chemical Name	Massachusetts - RTK	New Jersey - RTK	Pennsylvania - RTK	Illinois - RTK	Rhode Island - RTK
Guanidine hydrochloride	-	-	-	-	-
Tween 20	-	-	-	-	-

#### California Proposition 65

This product does not contain chemicals listed under Proposition 65

### WHMIS Hazard Class

D2B Toxic materials



This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the information required by the CPR

## 16. Other information

**Reason for Revision** not applicable. (M)SDS sections updated.

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**End of Safety Data Sheet**

# SAFETY DATA SHEET



Revision Date 06/14/2019

## SECTION 1: IDENTIFICATION

### CHEMICAL IDENTIFICATION

**Product Name:** Carrier RNA

**Product Number:** R0308

### SUPPLIER CONTACT INFORMATION

Ocean NanoTech  
7964 Arjons Dr. Suite G  
San Diego, CA 92126  
[info@oceannanotech.com](mailto:info@oceannanotech.com)

### EMERGENCY CONTACT INFORMATION

**In emergency call 911.**

For information about this SDS, contact phone #: 858-689-8808 (Monday-Friday, 9:00 a.m. – 5:00 p.m. PT)

## SECTION 2: HAZARD(S) IDENTIFICATION

### HAZARD CLASSIFICATION

Not a hazardous substance or mixture.

### HAZARD LABEL ELEMENTS

None

### SIGNAL WORD

None

### PRECAUTIONARY STATEMENTS

Not a hazardous substance or mixture.

### DESCRIPTION OF OTHER HAZARDS

None known.

## SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

### SUBSTANCE/MIXTURE

Chemical Name	Synonym	CAS #	Weight/Concentration
Carrier RNA	Poly A	26763-19-6	90 - <100%

## SECTION 4: FIRST-AID MEASURES

### DETAILED FIRST AID MEASURES

**After SKIN contact:** Immediately wash skin copiously with soap and water. Take victim immediately to hospital. Consult a physician.

**After EYE contact:** Immediately rinse out with water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Consult a physician.

**After INHALATION of vapors:** If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

**After ORAL intake:** Wash out mouth with water. Drink plenty of water. Consult a physician. Never give anything by mouth to an unconscious person.

**Notes to physician:** Treat symptomatically and supportively.

### IMPORTANT SYMPTOMS AND EFFECT

The most important known symptoms and effects are described in the Section 2 and Section 11.

### INDICATION OF IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No information available.

## SECTION 5: FIRE-FIGHTING MEASURES

### CONDITIONS OF FLAMMABILITY

Not flammable or combustible.

### SUITABLE EXTINGUISHING AGENTS

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

### SPECIFIC HAZARDS ARISING FROM THE CHEMICAL

Exposure to decomposition products may be a hazard to health.

No hazardous combustion products are known.

### SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin eyes.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Use personal protective equipment. Avoid breathing vapors, mist, or gas. Ensure adequate ventilation.

### EMERGENCY PROCEDURES

Not necessary.

### MEASURES FOR ENVIRONMENTAL PROTECTION

Not necessary.

### MEASURE FOR CLEANING AND COLLECTING

Pick up and arrange disposal without creating dust. Clean working area with water. Keep used cleaning materials in suitable, closed containers for disposal.

## SECTION 7: HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

Always wear recommended personal protective equipment and handle product in accordance with the test instructions that comes with the product. No other special handling advices are necessary.

### CONDITIONS FOR STORAGE

Keep in a dry, cool, and well-ventilated place. Keep in properly labeled containers tightly closed. Store at -20°C.

## SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

### EXPOSURE CONTROLS

Chemical Name	OSHA PEL	OSHA PEL (ceiling)	ACGIH OEL (TWA)	ACGIH OEL (STEL)
Carrier RNA	n/a	n/a	n/a	n/a

### ENGINEERING CONTROLS

Contains no substances with occupational exposure limit values. Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities.

### PERSONAL PROTECTIVE EQUIPMENT

**Eye/Face protection:** Safety glasses with side-shields. Use equipment for eye protection tested and approved under appropriate government standards.

**Skin protection:** Handle with impervious gloves and lightweight protective clothing. Gloves and clothing must be inspected prior to use. Use proper removal technique to avoid skin contact with this product. Dispose of contaminated gloves and protective clothing after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

**Respiratory protection:** If case of insufficient ventilation, use a full-face particle respirator 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.

**Hygiene measures:** Handle in accordance with good industrial hygiene and safety practices.

**Other protective clothing or equipment:** not available.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### GENERAL CHEMICAL AND PHYSICAL PROPERTIES

**Appearance:** Colorless liquid  
**Lower flammability or explosive limit:** Not available  
**Upper flammability or explosive limit:** Not available  
**Odor:** Not available  
**Vapor pressure:** Not available  
**Odor threshold:** Not available  
**Vapor density:** Not available  
**pH:** Not available  
**Relative density:** Not available  
**Melting point/range:** Not available  
**Freezing point/range:** Not available  
**Solubility:** soluble in water  
**Boiling point/range:** Not available  
**Flash point/range:** Not available  
**Evaporation rate:** Not available  
**Flammability:** Not available  
**Partition coefficient:** n-octanol/water; not available  
**Auto ignition temperature:** Not available  
**Decomposition temperature:** Not available  
**Viscosity:** Not available

## SECTION 10: STABILITY AND REACTIVITY

### REACTIVITY

None known.

### CHEMICAL STABILITY

Stable under recommended storage conditions. No known instability.

### OTHER

**Conditions to avoid:** Not known  
**Incompatible materials:** Not available  
**Hazardous decomposition products:** No hazardous decomposition if stored and applied as directed.

## SECTION 11: TOXICOLOGICAL INFORMATION

### TOXICOLOGICAL EFFECTS

**Acute toxicity:** Not available

**Skin:** Not available; may cause skin irritation in susceptible persons.

**Eye:** Not available; may irritate eyes in susceptible persons.

**Inhalation:** Not available

**Ingestion:** Not available

**Carcinogenic effects:**

**IARC:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by IARC.

**ACGIH:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by ACGIH.

**NTP:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by NTP.

**OSHA:** No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible, or confirmed human carcinogen by OSHA.

**Mutagenic effects:** Not available

**Reproductive toxicity:** Not available

**Potential routes of exposure/potential health effects:** Respiratory organs, mouth, skin, and eyes.

**Symptoms of exposure:** Prolonged or repeated exposure can cause asthma. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

## SECTION 12: ECOLOGICAL INFORMATION (NON-MANDATORY)

### ECOTOXICITY

Not available

### BIODEGRADATION

Not available

### BIOACCUMULATION

Not available

### MOBILITY

Not available

### OTHER ADVERSE EFFECTS

None



## SECTION 13: DISPOSAL CONSIDERATIONS (NON-MANDATORY)

### SAFE HANDLING

The most important known safe handling methods are described in the Section 8.

### METHOD OF DISPOSAL

Dispose of product in accordance with local rules and regulations. **GENERAL:** Empty solids into a municipal waste, empty liquids diluted into drains. Normally it is possible to empty small amounts (diluted!) into drains.

## SECTION 14: TRANSPORT INFORMATION (NON-MANDATORY)

### US DEPARTMENT OF TRANSPORTATION (DOT)

This material is considered to be non-hazardous for transport.

### MARITIME TRANSPORT (IMDG)

This material is considered to be non-hazardous for transport.

### AIR TRANSPORT (IATA)

This material is considered to be non-hazardous for transport.

## SECTION 15: REGULATORY INFORMATION (NON-MANDATORY)

### SARA 302 COMPONENTS

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

### SARA 313 COMPONENTS

This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA Title III, Section 313.

### SARA 311/312 HAZARDS

No SARA Hazards

### SARA 304

This material does not contain any components with a section 304 EHS RQ.

### CLEAN AIR ACT, SECTION 112 HAZARDOUS AIR POLLUTANTS (SEE 40 CFR 61)

This product does not contain hazardous air pollutants.

### MASSACHUSETTS RIGHT TO KNOW COMPONENTS

Carrier RNA      CAS-No. 26763-19-6

### PENNSYLVANIA RIGHT TO KNOW COMPONENTS

Carrier RNA      CAS-No. 26763-19-6

#### **NEW JERSEY RIGHT TO KNOW COMPONENTS**

Carrier RNA      CAS-No. 26763-19-6

#### **CALIFORNIA PROP 65 COMPONENTS**

This product does not contain any chemicals known to the State of California to cause cancer, birth, or any other reproductive defects.

### **SECTION 16: OTHER INFORMATION**

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