

Product Number: NB88  
Product Name: Nitric Oxide non-enzymatic colorimetric assay  
Revision: 210818

**1.1 Product Identification**

Product Name: NB88 ZnSO4 Solution  
Product Number: NB88  
Brand: Oxford Biomedical Research

**1.2 Supplier**

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

**1.3 Relevant Uses**

Identified uses: Research Assay

**1.4 Emergency Contact Number**

Contact: 248-852-8815

**2.1 Classification of the substance or mixture**

Acute Toxicity oral (category 4), Serious eye damage (category 1), Short term acute aquatic hazard (category 1), Long term chronic aquatic hazard (category 1)

**2.2 GHS Label or Precautionary Statements**

Harmful if swallowed, causes serious eye damage, very toxic to aquatic life with long lasting effects

**2.3 Hazards not otherwise classified**

None

**3.1 Substances: ZnSO4 Solution (2mL)**

Zinc (II) Sulfate Heptahydrate Acute Tox. 4; Eye Dam. 1; Aquatic Acute 1; Aquatic Chronic 1; H302, H318, H400, H410

**4.1 Description of first aid measures  
If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician

**In case of eye contact**

Flush eyes with water for at least 15 minutes. Consult a physician

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

**4.2 Most important symptoms and effects: acute or delayed**  
The most important symptoms/effects are listed in section 2 and 11

**4.3 Recommendations for immediate medical care or special treatment**  
Treat symptomatically

**5.1 Extinguishing media** Use water spray, dry chemical, or carbon dioxide

**5.2 Special hazards** Sulfur Oxides, Borane/boron oxides, Zinc, zinc oxides

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions and personal protective equipment** Standard laboratory personal protective equipment should be utilized.

**6.2 Environmental precautions** Don't let product enter drains, discharge into environment should be avoided.

**6.3 Methods for containment and clean up** Wipe with absorbent material and dispose of in suitable container.

**SECTION 7: Handling and Storage**

**7.1 Precautions for safe handling** Follow standard Good Laboratory Practices while using this product.

**7.2 Conditions for safe storage, including any incompatibilities** Keep container tightly closed. Recommended storage temperature is 4°C.

## SECTION 8: Exposure Controls/Personal Protection

<b>8.1</b>	<b>OSHA Permissible Exposure Limits</b>	Contains no substances with occupational exposure limits.
<b>8.2</b>	<b>Exposure controls</b>	Follow standard Good Laboratory Practices while using this product.
<b>8.3</b>	<b>Personal Protective Equipment</b>	
	<b>Eye/face protection</b>	Use eye protection approved by NIOSH or EN166.
	<b>Skin protection</b>	Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
	<b>Body protection</b>	Wear a lab coat in accordance to standard Good Laboratory Practices.
	<b>Respiratory protection</b>	Respiratory protection is not required.
	<b>Control of environmental exposure</b>	Don't let product enter drains, discharge into environment should be avoided.

## SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Clear Liquid
<b>Odor</b>	None
<b>Flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	No data available
<b>Relative Density</b>	No data available
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	No data available

<b>Solubility</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash Point</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	No data available

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	No data available
	<b>Skin irritation</b>	May cause redness and irritation in sensitive individuals
	<b>Serious eye damage or irritation</b>	May cause redness and irritation in sensitive individuals
	<b>Respiratory or skin sensitization</b>	May cause respiratory in sensitive individuals
	<b>Germ cell mutagenicity</b>	No data available
	<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
	<b>Reproductive toxicity</b>	No data available
	<b>Specific target organ toxicity</b>	No data available

**Aspiration hazard** No data available

## **SECTION 12: Ecological Information**

<b>12.1</b>	<b>Toxicity</b>	Toxic to fish, daphnia, algae, bacteria, and other aquatic invertebrates
<b>12.2</b>	<b>Persistence and degradability</b>	The methods for determining degradability are not applicable
<b>12.3</b>	<b>Bioaccumulation potential</b>	Channa Punctata-45d at 27°C (Zinc(II) sulfate heptahydrate) Bioconcentration factor (BCF): 0.4
<b>12.4</b>	<b>Mobility in Soil</b>	No data available
<b>12.5</b>	<b>Other adverse effects</b>	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Very toxic to aquatic life with long lasting effects.

## **SECTION 13: Disposal Considerations**

**13.1** **Waste treatment methods** Dispose of product with a licensed disposal company.

## **SECTION 14: Transport Information**

<b>14.1</b>	<b>US DOT</b>	Not dangerous goods
<b>14.2</b>	<b>IMDG</b>	Not dangerous goods
<b>14.3</b>	<b>IATA</b>	Not dangerous goods

## **SECTION 15: Regulatory Information**

No known regulatory requirements.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Revision date: 8-18-21

### 1.1 Product Identification

Product Name: NB88 Color Reagent 1  
Product Number: NB88  
Brand: Oxford Biomedical Research

### 1.2 Supplier

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

### 1.3 Relevant Uses

Identified uses: Research Assay

### 1.4 Emergency Contact Number

Contact: 248-852-8815

### 2.1 Classification of the substance or mixture

Corrosive to metals, skin irritation, eye irritation, specific target organ toxicity-single exposure, respiratory system

### 2.2 GHS Label or Precautionary Statements

H290- may be corrosive to metals, H315-causes skin irritation, H319-causes serious eye irritation, H335-may cause respiratory irritation

### 2.3 Hazards not otherwise classified

Caution: Physiologically highly active, contains therapeutically usable substance.

### 3.1 Substances: Color reagent 1 (7mL)

HCl Met. Corr. 1; Skin Corr. 1B; Eye Dam. 1; STOT SE 3;  
H290, H314, H318, H335

### 4.1 Description of first aid measures

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician

#### In case of skin contact

Take off contaminated clothing right away. Wash off with soap and plenty of water. Consult a physician

**In case of eye contact**

Flush eyes with water for at least 15 minutes. Keep rinsing eyes during transport to the hospital

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

**4.2 Most important symptoms and effects: acute or delayed**

The most important symptoms/effects are listed in section 2 and 11

**4.3 Recommendations for immediate medical care or special treatment**

Treat symptomatically

**5.1 Extinguishing media**

Use water spray, dry chemical, or carbon dioxide

**5.2 Special hazards**

Hydrogen Chloride gas, carbon oxides, nitrogen oxides, sulfur oxides, carbon oxides, combustible

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions and personal protective equipment**

Standard laboratory personal protective equipment should be utilized.

**6.2 Environmental precautions**

Don't let product enter drains

**6.3 Methods for containment and clean up**

Wipe with absorbent material and dispose of in suitable container.

**SECTION 7: Handling and Storage**

**7.1 Precautions for safe handling**

Follow standard Good Laboratory Practices while using this product.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep in an amber container tightly closed. Recommended storage temperature is 4°C. Avoid direct exposure to sunlight

## SECTION 8: Exposure Controls/Personal Protection

<b>8.1</b>	<b>OSHA Permissible Exposure Limits</b> HCl	Value: C, Control parameters: 2ppm
<b>8.2</b>	<b>Exposure controls</b>	Follow standard Good Laboratory Practices while using this product.
<b>8.3</b>	<b>Personal Protective Equipment</b>	
	<b>Eye/face protection</b>	Use eye protection approved by NIOSH or EN166.
	<b>Skin protection</b>	Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
	<b>Body protection</b>	Wear a lab coat in accordance to standard Good Laboratory Practices.
	<b>Respiratory protection</b>	Respiratory protection is not required.
	<b>Control of environmental exposure</b>	Do not let product enter drains

## SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Clear, colorless solution
<b>Odor</b>	No data available
<b>Flammability</b>	Not data available
<b>Vapor Pressure</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	Not applicable
<b>Relative Density</b>	No data available
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	No data available



<b>Solubility</b>	Soluble in water
<b>Boiling Point</b>	No data available
<b>Flash Point</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	Product is not self-igniting
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	No data available

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	No data available
	<b>Skin irritation</b>	Irritating to skin and mucus membranes
	<b>Serious eye damage or irritation</b>	Irritating to eyes. May cause irreversible eye damage
	<b>Respiratory or skin sensitization</b>	May cause irritation in sensitive individuals
	<b>Germ cell mutagenicity</b>	No data available
	<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
	<b>Reproductive toxicity</b>	No data available
	<b>Specific target organ toxicity</b>	May cause respiratory irritation

**Aspiration hazard** No data available

## **SECTION 12: Ecological Information**

<b>12.1</b>	<b>Toxicity</b>	No data available
<b>12.2</b>	<b>Persistence and degradability</b>	Not readily biodegradable
<b>12.3</b>	<b>Bioaccumulation potential</b>	No data available
<b>12.4</b>	<b>Mobility in Soil</b>	No data available
<b>12.5</b>	<b>Other adverse effects</b>	May be harmful to aquatic life due to the shift of the PH. Avoid release to the environment

## **SECTION 13: Disposal Considerations**

<b>13.1</b>	<b>Waste treatment methods</b>	Dispose of product with a licensed disposal company.
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## **SECTION 14: Transport Information**

<b>14.1</b>	<b>US DOT</b>	Not dangerous goods
<b>14.2</b>	<b>IMDG</b>	Not dangerous goods
<b>14.3</b>	<b>IATA</b>	Not dangerous goods

## **SECTION 15: Regulatory Information**

No known regulatory requirements.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all-inclusive and shall be used only as a guide.

Revision date: 8-18-21

### 1.1 **Product Identification**

Product Name: NB88 Color Reagent 2  
Product Number: NB88  
Brand: Oxford Biomedical Research

### 1.2 **Supplier**

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

### 1.3 **Relevant Uses**

Identified uses: Research Assay

### 1.4 **Emergency Contact Number**

Contact: 248-852-8815

### 2.1 **Classification of the substance or mixture**

Acute Toxicity (oral) Category 4, skin irritation category 2, eye irritation category 2A, specific target organ toxicity-single exposure category 1 (eyes)

### 2.2 **GHS Label or Precautionary Statements**

Harmful if swallowed, causes skin irritation, causes serious eye irritation, causes damage to organs (eyes)

### 2.3 **Hazards not otherwise classified**

None

### 3.1 **Substances: Color Reagent 2 (7mL)**

N-(1-Naphthyl) ethylenediamine dihydrochloride Skin irrit. 2; Eye irrit. 2A; H315, H319

Methanol Flam. Liq. 2; Acute Tox. 3; STOT SE 1; H225, H301, H331, H311, H370

### 4.1 **Description of first aid measures If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water as a precaution.

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water.

**4.2 Most important symptoms and effects: acute or delayed**  
The most important symptoms/effects are listed in section 2 and 11

**4.3 Recommendations for immediate medical care or special treatment**  
Treat symptomatically

**5.1 Extinguishing media** Use water spray, dry chemical, or carbon dioxide

**5.2 Special hazards** Carbon oxides, Nitrogen Oxides, Hydrogen Chloride gas

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions and personal protective equipment** Standard laboratory personal protective equipment should be utilized.

**6.2 Environmental precautions** Do Not let product enter drains

**6.3 Methods for containment and clean up** Wipe with absorbent material and dispose of in suitable container.

**SECTION 7: Handling and Storage**

**7.1 Precautions for safe handling** Follow standard Good Laboratory Practices while using this product.

**7.2 Conditions for safe storage, including any incompatibilities** Keep amber container tightly closed. Recommended storage temperature is 4°C. Light sensitive

## SECTION 8: Exposure Controls/Personal Protection

<b>8.1</b>	<b>OSHA Permissible Exposure Limits</b> Methanol	Value: TWA, control parameters: 200ppm
<b>8.2</b>	<b>Exposure controls</b>	Follow standard Good Laboratory Practices while using this product.
<b>8.3</b>	<b>Personal Protective Equipment</b>	
	<b>Eye/face protection</b>	Use eye protection approved by NIOSH or EN166.
	<b>Skin protection</b>	Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
	<b>Body protection</b>	Wear a lab coat in accordance to standard Good Laboratory Practices.
	<b>Respiratory protection</b>	Respiratory protection is not required.
	<b>Control of environmental exposure</b>	Do not let product enter drains

## SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Clear colorless liquid
<b>Odor</b>	No data available
<b>Flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	No data available
<b>Relative Density</b>	No data available
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	No data available
<b>Solubility</b>	No data available
<b>Boiling Point</b>	No data available

<b>Flash Point</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	No data available

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	No data available
	<b>Skin irritation</b>	No data available
	<b>Serious eye damage or irritation</b>	No data available
	<b>Respiratory or skin sensitization</b>	No data available
	<b>Germ cell mutagenicity</b>	No data available
	<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
	<b>Reproductive toxicity</b>	No data available
	<b>Specific target organ toxicity</b>	No data available
	<b>Aspiration hazard</b>	No data available

## **SECTION 12: Ecological Information**

<b>12.1</b>	<b>Toxicity</b>	No data available
<b>12.2</b>	<b>Persistence and degradability</b>	No data available
<b>12.3</b>	<b>Bioaccumulation potential</b>	No data available
<b>12.4</b>	<b>Mobility in Soil</b>	No data available
<b>12.5</b>	<b>Other adverse effects</b>	With the available data, the substance is not harmful to the environment.

## **SECTION 13: Disposal Considerations**

<b>13.1</b>	<b>Waste treatment methods</b>	Dispose of product with a licensed disposal company.
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## **SECTION 14: Transport Information**

<b>14.1</b>	<b>US DOT</b>	Not dangerous goods
<b>14.2</b>	<b>IMDG</b>	Not dangerous goods
<b>14.3</b>	<b>IATA</b>	Not dangerous goods

## **SECTION 15: Regulatory Information**

No known regulatory requirements.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Revision date: 8-18-21

**1.1 Product Identification**

Product Name: NB88 Nitrate Standard  
Product Number: NB88  
Brand: Oxford Biomedical Research

**1.2 Supplier**

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

**1.3 Relevant Uses**

Identified uses: Research Assay

**1.4 Emergency Contact Number**

Contact: 248-852-8815

**2.1 Classification of the substance or mixture**

Oxidizing solids (Category 3), Acute Toxicity oral (Category 3), Eye irritation (Category 2A), Carcinogenicity (Category 1B), Short Term acute aquatic hazard (Category 1)

**2.2 GHS Label or Precautionary Statements**

May intensify fire; oxidizer, Toxic if swallowed, causes serious eye irritation, may cause cancer, very toxic to aquatic life

**2.3 Hazards not otherwise classified**

None

**3.1 Substances: Nitrate Standard (2mL)**

Sodium nitrite Ox. Sol 3; Acute Tox. 3; Eye Irrit. 2A; Carc. 1B; Aquatic Acute 1; H272, H301, H319, H350, H400

**4.1 Description of first aid measures  
If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.



**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water. Call an ophthalmologist

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical advice immediately

**4.2 Most important symptoms and effects: acute or delayed**  
The most important symptoms/effects are listed in section 2 and 11

**4.3 Recommendations for immediate medical care or special treatment**  
Treat symptomatically

**5.1 Extinguishing media** Use water foam carbon dioxide dry powder

**5.2 Special hazards** Nitrogen Oxides, Sodium Oxides, Combustible

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions and personal protective equipment** Standard laboratory personal protective equipment should be utilized.

**6.2 Environmental precautions** Do Not let product enter drains

**6.3 Methods for containment and clean up** Wipe with absorbent material and dispose of in suitable container.

**SECTION 7: Handling and Storage**

**7.1 Precautions for safe handling** Follow standard Good Laboratory Practices while using this product. Keep away from open flames or sources of ignition

**7.2 Conditions for safe storage, including any incompatibilities** Keep container tightly closed. Recommended storage temperature is 4°C.

## SECTION 8: Exposure Controls/Personal Protection

<b>8.1</b>	<b>OSHA Permissible Exposure Limits</b>	Contains no substances with occupational exposure limits
<b>8.2</b>	<b>Exposure controls</b>	Follow standard Good Laboratory Practices while using this product.
<b>8.3</b>	<b>Personal Protective Equipment</b>	
	<b>Eye/face protection</b>	Use eye protection approved by NIOSH or EN166.
	<b>Skin protection</b>	Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
	<b>Body protection</b>	Wear a lab coat in accordance to standard Good Laboratory Practices.
	<b>Respiratory protection</b>	Respiratory protection is not required.
	<b>Control of environmental exposure</b>	Do not let product enter drains

## SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Clear colorless liquid
<b>Odor</b>	No data available
<b>Flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	No data available
<b>Relative Density</b>	No data available
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	No data available
<b>Solubility</b>	No data available
<b>Boiling Point</b>	No data available

<b>Flash Point</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	No data available
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	Risk of explosion with combustible substances

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	No data available
	<b>Skin irritation</b>	No data available
	<b>Serious eye damage or irritation</b>	Moderate eye irritation
	<b>Respiratory or skin sensitization</b>	No data available
	<b>Germ cell mutagenicity</b>	No data available
	<b>Carcinogenicity</b>	Group 2A: Probably carcinogenic to humans (sodium nitrite)
	<b>Reproductive toxicity</b>	No data available
	<b>Specific target organ toxicity</b>	No data available
	<b>Aspiration hazard</b>	No data available

## **SECTION 12: Ecological Information**

<b>12.1</b>	<b>Toxicity</b>	Toxic to fish, daphnia, algae, bacteria, and other aquatic invertebrates
<b>12.2</b>	<b>Persistence and degradability</b>	The methods for determining biodegradability are not applicable to inorganic substances
<b>12.3</b>	<b>Bioaccumulation potential</b>	No data available
<b>12.4</b>	<b>Mobility in Soil</b>	No data available
<b>12.5</b>	<b>Other adverse effects</b>	No data available

## **SECTION 13: Disposal Considerations**

<b>13.1</b>	<b>Waste treatment methods</b>	Dispose of product with a licensed disposal company.
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## **SECTION 14: Transport Information**

<b>14.1</b>	<b>US DOT</b>	Not dangerous goods
<b>14.2</b>	<b>IMDG</b>	Not dangerous goods
<b>14.3</b>	<b>IATA</b>	Not dangerous goods

## **SECTION 15: Regulatory Information**

No known regulatory requirements.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Revision date: 8-19-21

**1.1 Product Identification**

Product Name: NB88 0.1M HCl  
Product Number: NB88  
Brand: Oxford Biomedical Research

**1.2 Supplier**

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

**1.3 Relevant Uses**

Identified uses: Research Assay

**1.4 Emergency Contact Number**

Contact: 248-852-8815

**2.1 Classification of the substance or mixture**

Corrosive to metals (category 1)

**2.2 GHS Label or Precautionary Statements**

May be corrosive to metals

**2.3 Hazards not otherwise classified**

None

**3.1 Substances: 0.1M HCl (125mL)**

Hydrochloric acid Met. Corr. 1; Skin Corr. 1B; Eye Dam 1; STOT SE 3; H290, H314, H318, H335

**4.1 Description of first aid measures**

**If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration.

**In case of skin contact**

Wash off with soap and plenty of water.

**In case of eye contact**

Flush eyes with water. Remove contact lenses

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek medical advice immediately

**4.2 Most important symptoms and effects: acute or delayed**

The most important symptoms/effects are listed in section 2 and 11

**4.3 Recommendations for immediate medical care or special treatment**

Treat symptomatically

**5.1 Extinguishing media**

Use water spray, dry chemical, or carbon dioxide

**5.2 Special hazards**

Hydrogen Chloride gas, not combustible, ambient fire may liberate hazardous vapors

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions and personal protective equipment**

Standard laboratory personal protective equipment should be utilized.

**6.2 Environmental precautions**

Do Not let product enter drains

**6.3 Methods for containment and clean up**

Wipe with absorbent material and dispose of in suitable container.

**SECTION 7: Handling and Storage**

**7.1 Precautions for safe handling**

Follow standard Good Laboratory Practices while using this product. Keep away from open flames or sources of ignition

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed. Recommended storage temperature is 4°C. Corrodes metal so avoid metal containers

## SECTION 8: Exposure Controls/Personal Protection

<b>8.1</b>	<b>OSHA Permissible Exposure Limits</b> Hydrochloric Acid	Value: C Control parameters: 2ppm
<b>8.2</b>	<b>Exposure controls</b>	Follow standard Good Laboratory Practices while using this product.
<b>8.3</b>	<b>Personal Protective Equipment</b>	
	<b>Eye/face protection</b>	Use eye protection approved by NIOSH or EN166.
	<b>Skin protection</b>	Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
	<b>Body protection</b>	Wear a lab coat in accordance to standard Good Laboratory Practices.
	<b>Respiratory protection</b>	Respiratory protection required only when vapors are generated
	<b>Control of environmental exposure</b>	Do not let product enter drains

## SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Clear colorless liquid
<b>Odor</b>	No data available
<b>Flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	No data available
<b>Relative Density</b>	No data available
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	No data available

<b>Solubility</b>	No data available
<b>Boiling Point</b>	No data available
<b>Flash Point</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	Does not ignite
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	Violent reactions possible with the generally known reaction partners of water

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	No data available
	<b>Skin irritation</b>	Slight irritation
	<b>Serious eye damage or irritation</b>	Slight irritation
	<b>Respiratory or skin sensitization</b>	No data available
	<b>Germ cell mutagenicity</b>	No data available
	<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
	<b>Reproductive toxicity</b>	No data available
	<b>Specific target organ toxicity</b>	May cause respiratory irritation



**Aspiration hazard** No data available

## **SECTION 12: Ecological Information**

<b>12.1</b>	<b>Toxicity</b>	No data available
<b>12.2</b>	<b>Persistence and degradability</b>	No data available
<b>12.3</b>	<b>Bioaccumulation potential</b>	No data available
<b>12.4</b>	<b>Mobility in Soil</b>	No data available
<b>12.5</b>	<b>Other adverse effects</b>	May be harmful to aquatic organisms due to the shift of PH

## **SECTION 13: Disposal Considerations**

<b>13.1</b>	<b>Waste treatment methods</b>	Dispose of product with a licensed disposal company.
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## **SECTION 14: Transport Information**

<b>14.1</b>	<b>US DOT</b>	Not dangerous goods
<b>14.2</b>	<b>IMDG</b>	Not dangerous goods
<b>14.3</b>	<b>IATA</b>	Not dangerous goods

## **SECTION 15: Regulatory Information**

No known regulatory requirements.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Revision date: 8-20-21

**1.1 Product Identification**

Product Name: NB88 0.1M NH4OH  
Product Number: NB88  
Brand: Oxford Biomedical Research

**1.2 Supplier**

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

**1.3 Relevant Uses**

Identified uses: Research Assay

**1.4 Emergency Contact Number**

Contact: 248-852-8815

**2.1 Classification of the substance or mixture**

Acute Toxicity Oral (Category 4), Skin Corrosion (Category 1A), Specific Target Organ Toxicity Single exposure (Category 3), Short Term acute aquatic hazard (category 1)

**2.2 GHS Label or Precautionary Statements**

Harmful if swallowed, causes severe skin burns and eye damage, may cause respiratory irritation, very toxic to aquatic life.

**2.3 Hazards not otherwise classified**

Lachrymator

**3.1 Substances: 0.1M NH4OH (125mL)**

Ammonium Hydroxide Met.. Corr. 1; Acute Tox. 4; Skin Corr. 1B; Aquatic Acute 1; Aquatic Chronic 2; H290, H302, H314, H400, H411

**4.1 Description of first aid measures  
If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a

physician.

**In case of skin contact**

Wash off with soap and plenty of water. Consult a physician

**In case of eye contact**

Flush eyes with water. Remove contact lenses. Consult a physician

**If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

**4.2 Most important symptoms and effects: acute or delayed**

The most important symptoms/effects are listed in section 2 and 11

**4.3 Recommendations for immediate medical care or special treatment**

Treat symptomatically

**5.1 Extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

**5.2 Special hazards**

Nitrogen Oxides

**SECTION 6: Accidental Release Measures**

**6.1 Personal precautions and personal protective equipment**

Standard laboratory personal protective equipment should be utilized.

**6.2 Environmental precautions**

Do Not let product enter drains. Discharge into the environment must be avoided.

**6.3 Methods for containment and clean up**

Wipe with absorbent material and dispose of in suitable container.

**SECTION 7: Handling and Storage**

**7.1 Precautions for safe handling**

Follow standard Good Laboratory Practices while using this product.

**7.2 Conditions for safe storage, including any incompatibilities**

Keep container tightly closed. Recommended storage temperature is 4°C. May develop pressure so handle with care

## SECTION 8: Exposure Controls/Personal Protection

8.1	<b>OSHA Permissible Exposure Limits</b>	No data available
8.2	<b>Exposure controls</b>	Follow standard Good Laboratory Practices while using this product.
8.3	<b>Personal Protective Equipment</b>	
	<b>Eye/face protection</b>	Use eye protection approved by NIOSH or EN166.
	<b>Skin protection</b>	Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
	<b>Body protection</b>	Wear a lab coat in accordance to standard Good Laboratory Practices.
	<b>Respiratory protection</b>	Respiratory protection required only when vapors are generated
	<b>Control of environmental exposure</b>	Do not let product enter drains. Discharge into the environment must be avoided

## SECTION 9: Physical and Chemical Properties

<b>Appearance</b>	Clear colorless liquid
<b>Odor</b>	No data available
<b>Flammability</b>	No data available
<b>Vapor Pressure</b>	No data available
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	No data available
<b>Relative Density</b>	No data available
<b>Melting Point</b>	Not applicable
<b>Freezing Point</b>	No data available
<b>Solubility</b>	No data available

<b>Boiling Point</b>	No data available
<b>Flash Point</b>	No data available
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	Does not ignite
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	No data available

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	LD50 Oral-Rat-350mg/kg (ammonium hydroxide) Remarks: Gastrointestinal: Other changes. Liver: other changes. Kidney, ureter, bladder: other changes
	<b>Skin irritation</b>	No data available
	<b>Serious eye damage or irritation</b>	No data available
	<b>Respiratory or skin sensitization</b>	No data available
	<b>Germ cell mutagenicity</b>	No data available
	<b>Carcinogenicity</b>	No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen.
	<b>Reproductive toxicity</b>	No data available

**Specific target organ toxicity**      No data available

**Aspiration hazard**      No data available

## **SECTION 12: Ecological Information**

**12.1      Toxicity**      Toxic to Daphnia and other aquatic invertebrates

**12.2      Persistence and degradability**      No data available

**12.3      Bioaccumulation potential**      Does not bioaccumulate

**12.4      Mobility in Soil**      No data available

**12.5      Other adverse effects**      Very toxic to aquatic life

## **SECTION 13: Disposal Considerations**

**13.1      Waste treatment methods**      Dispose of product with a licensed disposal company.

## **SECTION 14: Transport Information**

**14.1      US DOT**      Not dangerous goods

**14.2      IMDG**      Not dangerous goods

**14.3      IATA**      Not dangerous goods

## **SECTION 15: Regulatory Information**

No known regulatory requirements.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Revision date: 8-24-21

### 1.1 **Product Identification**

Product Name: NB88 Cadmium Beads  
Product Number: NB88  
Brand: Oxford Biomedical Research

### 1.2 **Supplier**

Company: Oxford Biomedical Research, Inc.  
PO Box 522  
Oxford, MI 48371  
USA  
Contact: 248-852-8815  
[info@oxfordbiomed.com](mailto:info@oxfordbiomed.com)

### 1.3 **Relevant Uses**

Identified uses: Research Assay

### 1.4 **Emergency Contact Number**

Contact: 248-852-8815

### 2.1 **Classification of the substance or mixture**

Acute Toxicity Oral (category 3), Acute Toxicity inhalation (category 2), Germ cell mutagenicity (category 2), Carcinogenicity (category 1B), Reproductive toxicity (category 2), Specific Target Organ Toxicity-repeated exposure (category 1), Short term acute aquatic hazard (category 1), long term chronic aquatic hazard (category 1)

### 2.2 **GHS Label or Precautionary Statements**

Danger, Toxic if swallowed, Fatal if swallowed, suspected of causing genetic defects, May cause cancer, suspected of damaging fertility or the unborn child, causes damage to organs through prolonged or repeated exposure, very toxic to aquatic life with long lasting effects.

### 2.3 **Hazards not otherwise classified**

### 3.1 **Substances: Cadmium Beads (25g)**

Cadmium Acute Tox. 2; Muta 2; Carc. 1B; Repr. 2; STOT RE 1; Aquatic acute 1; Aquatic chronic 1; H330, H341, H350, H361, H372, H400, H410

#### **4.1 Description of first aid measures**

##### **If inhaled**

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

##### **In case of skin contact**

Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician

##### **In case of eye contact**

Flush eyes with water as a precaution.

##### **If swallowed**

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician

#### **4.2 Most important symptoms and effects: acute or delayed**

The most important symptoms/effects are listed in section 2 and 11

#### **4.3 Recommendations for immediate medical care or special treatment**

No data available

#### **5.1 Extinguishing media**

Use water spray, alcohol-resistant foam, dry chemical, or carbon dioxide

#### **5.2 Special hazards**

Cadmium/Cadmium oxides

### **SECTION 6: Accidental Release Measures**

#### **6.1 Personal precautions and personal protective equipment**

Standard laboratory personal protective equipment should be utilized. Avoid dust formation. Avoid breathing vapors, mist or gas.

#### **6.2 Environmental precautions**

Do Not let product enter drains. Discharge into the environment must be avoided.

#### **6.3 Methods for containment and clean up**

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable closed containers for disposal

### **SECTION 7: Handling and Storage**

#### **7.1 Precautions for safe handling**

Follow standard Good Laboratory Practices while using this



product. Provide appropriate ventilation at places where dust is formed.

- 7.2 Conditions for safe storage, including any incompatibilities** Keep container tightly closed. Recommended storage temperature is 4°C. Air sensitive. Storage class (TRGS 510): 6.1A: Combustible, acute toxic cat. 1 and 2/very toxic hazardous materials

## SECTION 8: Exposure Controls/Personal Protection

- 8.1 OSHA Permissible Exposure Limits**  
Workplace Parameters: Cadmium Value: TWA Control Parameters: 0.1mg/m<sup>3</sup>  
Remarks: Potential Occupational Carcinogen, suspected human carcinogen  
Biological Occupational Exposure limits: Cadmium Value: 5µg/l biological specimen: in blood  
Remarks: Not critical
- 8.2 Exposure controls** Follow standard Good Laboratory Practices while using this product.
- 8.3 Personal Protective Equipment**  
**Eye/face protection** Use eye protection approved by NIOSH or EN166.
- Skin protection** Handle with gloves. Use proper glove removal technique to avoid skin contact. Gloves should be disposed of after use according to standard Good Laboratory Practices. Wash hands after use.
- Body protection** Wear a lab coat in accordance to standard Good Laboratory Practices.
- Respiratory protection** Respiratory protection required only when vapors are generated
- Control of environmental exposure** Do not let product enter drains. Discharge into the environment must be avoided

## SECTION 9: Physical and Chemical Properties

- Appearance** Granular Metallic  
**Odor** Odorless

<b>Flammability</b>	No data available
<b>Vapor Pressure</b>	1.3 hPa at 394°C
<b>Odor Threshold</b>	No data available
<b>Vapor Density</b>	No data available
<b>pH</b>	No data available
<b>Relative Density</b>	8.6 at 22°C – regulation (EC) No. 440/2008, Annex, A.3
<b>Melting Point</b>	320.9°C-lit.
<b>Freezing Point</b>	No data available
<b>Solubility</b>	No data available
<b>Boiling Point</b>	765°C-lit.
<b>Flash Point</b>	Not applicable
<b>Evaporation Rate:</b>	No data available
<b>Auto-ignition Temperature</b>	Does not ignite
<b>Decomposition Temperature</b>	No data available
<b>Viscosity</b>	No data available

## **SECTION 10: Stability and Reactivity**

<b>10.1</b>	<b>Reactivity</b>	No data available
<b>10.2</b>	<b>Chemical Stability</b>	Stable under recommended storage conditions
<b>10.3</b>	<b>Possibility of hazardous reactions</b>	No data available

## **SECTION 11: Toxicological Information**

<b>11.1</b>	<b>Toxicity</b>	
	<b>Acute toxicity</b>	No data available
	<b>Skin irritation</b>	No data available
	<b>Serious eye damage or irritation</b>	No data available
	<b>Respiratory or skin sensitization</b>	No data available

<b>Germ cell mutagenicity</b>	Suspected of causing genetic defects
<b>Carcinogenicity</b>	Presumed to have carcinogenic potential for humans IARC: 1-group 1: carcinogenic to humans(cadmium)
<b>Reproductive toxicity</b>	Suspected of damaging the unborn child. Suspected of damaging fertility
<b>Specific target organ toxicity</b>	
<b>Repeated Exposure</b>	Causes damage to organs through prolonged or repeated exposure
<b>Aspiration hazard</b>	No data available

## SECTION 12: Ecological Information

<b>12.1</b>	<b>Toxicity</b>	Toxicity to fish, daphnia, bacteria, and other aquatic invertebrates
<b>12.2</b>	<b>Persistence and degradability</b>	The methods for determining the biological degradability are not applicable to inorganic substances
<b>12.3</b>	<b>Bioaccumulation potential</b>	Bioaccumulation- Oncorhynchus mykiss (rainbow trout) – 72 d – 1.27µg/l (cadmium) Bioconcentration factor (BCF): 55
<b>12.4</b>	<b>Mobility in Soil</b>	No data available
<b>12.5</b>	<b>Other adverse effects</b>	Very toxic to aquatic life with long lasting effects

## SECTION 13: Disposal Considerations

<b>13.1</b>	<b>Waste treatment methods</b>	Dispose of product with a licensed disposal company.
	<b>Contaminated Packaging</b>	Dispose of as unused product

## SECTION 14: Transport Information

<b>14.1</b>	<b>US DOT</b>	UN Number: 3288 Class: 6.1 Packing group II
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**14.2**        **IMDG**

Reportable Quantity: 10 lbs.

Poison Inhalation Hazard: No

UN Number: 3288 Class: 6.1 Packing group II

Proper shipping name: Toxic Solid, Inorganic, N.O.S  
(cadmium)

Marine Pollutant: yes

**14.3**        **IATA**

UN Number: 3288 Class: 6.1 Packing group II

Proper shipping name: Toxic Solid, Inorganic, n.o.s  
(cadmium)

## **SECTION 15: Regulatory Information**

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313: Cadmium Cas no: 7440-43-9

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Reportable Quantity**

D006 lbs.

## **SECTION 16: Other Information**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.

Revision date: 8-25-21