

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product form : Mixture  
Product name : Blue Tsunami  
Product code : 80610

**1.2. Relevant identified uses of the substance or mixture and uses advised against****1.3. Details of the supplier of the safety data sheet**

West Central Inc.  
2700 Trott Avenue SW  
PO Box 897  
Willmar, MN 56201  
T 1-320-235-8518 - F 1-320-235-7929  
[www.westcentralinc.com](http://www.westcentralinc.com)

**1.4. Emergency telephone number**

Emergency number : 1-800-424-9300  
ChemTrec

**SECTION 2: Hazards identification****2.1. Classification of the substance or mixture****GHS-US classification**

Acute Tox. 4 (Oral) H302  
Aquatic Acute 2 H401

Full text of H-statements: see section 16

**2.2. Label elements****GHS-US labelling**

Hazard pictograms (GHS-US) :



GHS07

Signal word (GHS-US) : Warning  
Hazard statements (GHS-US) : H302 - Harmful if swallowed  
H401 - Toxic to aquatic life  
Precautionary statements (GHS-US) : P264 - Wash hands, forearms and face thoroughly after handling  
P270 - Do not eat, drink or smoke when using this product  
P273 - Avoid release to the environment  
P301+P312 - If swallowed: Call a doctor or poison control center if ingested or eye contact has occurred if you feel unwell  
P330 - Rinse mouth  
P501 - Dispose of contents/container to Dispose of at a licensed hazardous waste facility in accordance with state and local regulations

**2.3. Other hazards**

No additional information available

**2.4. Unknown acute toxicity (GHS-US)**

Not applicable

**SECTION 3: Composition/information on ingredients****3.1. Substance**

Not applicable

**3.2. Mixture**

# Blue Tsunami

## Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Name	Product identifier	%	GHS-US classification
ammonia, liquefied, under pressure	(CAS No) 7664-41-7	5 - 25	Acute Tox. 3 (Inhalation:gas), H331 Skin Corr. 1A, H314 Aquatic Acute 2, H401

Full text of H-statements: see section 16

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Allow breathing of fresh air. Allow the victim to rest.
- First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. Wash skin with plenty of water.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persist. Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a poison center or a doctor if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/injuries : Not expected to present a significant hazard under anticipated conditions of normal use.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Reactivity : The product is non-reactive under normal conditions of use, storage and transport.

#### 5.3. Advice for firefighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection. For further information refer to section 8: "Exposure controls/personal protection".
- Emergency procedures : Ventilate area.

#### 6.2. Environmental precautions

Avoid release to the environment. Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.
- Other information : Dispose of materials or solid residues at an authorized site.

#### 6.4. Reference to other sections

See Heading 8. Exposure controls and personal protection. For further information refer to section 13.

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### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Ensure good ventilation of the work station. Wear personal protective equipment. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour.
- Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Keep only in original container in a cool well ventilated area. Keep container closed when not in use. Store in a well-ventilated place. Keep cool.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight.
- Storage temperature : 25 (5 - 42) °C

#### 7.3. Specific end use(s)

No additional information available

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

Blue Tsunami		
ACGIH	Not applicable	
OSHA	Not applicable	
ammonia, liquefied, under pressure (7664-41-7)		
ACGIH	ACGIH TWA (ppm)	25 ppm (Ammonia; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	35 ppm (Ammonia; USA; Short time value; TLV - Adopted Value)
OSHA	Not applicable	

#### 8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Personal protective equipment : Avoid all unnecessary exposure.
- Hand protection : Wear protective gloves.
- Eye protection : Chemical goggles or safety glasses. Safety glasses.
- Skin and body protection : Wear suitable protective clothing.
- Respiratory protection : Wear appropriate mask.
- Environmental exposure controls : Avoid release to the environment.
- Other information : Do not eat, drink or smoke during use.

### SECTION 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

- Physical state : Liquid
- Colour : Blue
- Odour : Characteristic odour
- Odour threshold : No data available
- pH : 7.2 - 9
- Melting point : Not applicable
- Freezing point : <= 0 °C
- Boiling point : >= 100 °C
- Flash point : None
- Relative evaporation rate (butylacetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosive limits : No data available
- Explosive properties : No data available

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Oxidising properties	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Relative vapour density at 20 °C	: No data available
Density	: 1.191 g/ml
Solubility	: Soluble in water. Water: Solubility in water of component(s) of the mixture : • zinc oxide: 0.00029 g/100ml • edetic acid: 0.05 g/100ml • ammonia, liquefied, under pressure: 34 g/100ml
Log Pow	: No data available
Log Kow	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: >= 360 cP
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

VOC content : <= 10 g/l

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

The product is non-reactive under normal conditions of use, storage and transport.

### 10.2. Chemical stability

Not established.

### 10.3. Possibility of hazardous reactions

Not established.

### 10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

### 10.5. Incompatible materials

Strong acids. Strong bases.

### 10.6. Hazardous decomposition products

fume. Carbon monoxide. Carbon dioxide.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Oral: Harmful if swallowed.

Blue Tsunami	
ATE US (oral)	500.000 mg/kg bodyweight
<b>ammonia, liquefied, under pressure (7664-41-7)</b>	
LC50 inhalation rat (mg/l)	1.4 mg/l/4h (Rat; Literature)
LC50 inhalation rat (ppm)	2000 ppm/4h (Rat; Literature)
ATE US (gases)	2000.000 ppmv/4h
ATE US (vapours)	1.400 mg/l/4h
ATE US (dust,mist)	1.400 mg/l/4h

Skin corrosion/irritation	: Not classified pH: 7.2 - 9
Serious eye damage/irritation	: Not classified pH: 7.2 - 9
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

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Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Potential adverse human health effects and symptoms	: Based on available data, the classification criteria are not met.

### SECTION 12: Ecological information

#### 12.1. Toxicity

Ecology - general : Toxic to aquatic life.

##### ammonia, liquefied, under pressure (7664-41-7)

LC50 fish 1	0.16 - 1.1 mg/l (LC50; 96 h; Oncorhynchus mykiss)
EC50 Daphnia 1	2.08 - 4.94 mg/l (EC50; 48 h; Daphnia magna)
EC50 other aquatic organisms 1	2.5 - 2.8 mg/l (Plankton)
Threshold limit algae 1	2700 mg/l (ErC50; 18 days; Chlorella vulgaris; Static system)

#### 12.2. Persistence and degradability

##### Blue Tsunami

Persistence and degradability : Not established.

##### ammonia, liquefied, under pressure (7664-41-7)

Persistence and degradability : Readily biodegradable in water. Forming sediments in water. Biodegradability in soil: no data available. Adsorption to soil is possible. Ozonation in the air.

#### 12.3. Bioaccumulative potential

##### Blue Tsunami

Bioaccumulative potential : Not established.

##### ammonia, liquefied, under pressure (7664-41-7)

Log Pow : 0.23 (Calculated; 20 °C)  
Bioaccumulative potential : Low potential for bioaccumulation (Log Kow < 4).

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

Other information : Avoid release to the environment.

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.  
Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.  
Ecology - waste materials : Avoid release to the environment.

### SECTION 14: Transport information

#### Department of Transportation (DOT)

In accordance with DOT  
Not regulated for transport

#### Additional information

Other information : No supplementary information available.

#### ADR

No additional information available

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### Transport by sea

No additional information available

### Air transport

No additional information available

## SECTION 15: Regulatory information

### 15.1. US Federal regulations

No additional information available

### 15.2. International regulations

#### CANADA

No additional information available

#### EU-Regulations

No additional information available

#### Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

#### Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

#### National regulations

No additional information available

### 15.3. US State regulations

No additional information available

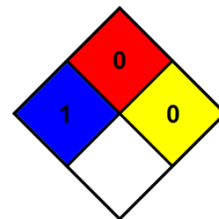
## SECTION 16: Other information

Other information : None.

Full text of H-statements:

Acute Tox. 3 (Inhalation:gas)	Acute toxicity (inhalation:gas) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 2	Hazardous to the aquatic environment — Acute Hazard, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H331	Toxic if inhaled
H401	Toxic to aquatic life

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.  
NFPA fire hazard : 0 - Materials that will not burn.  
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.  
NFPA specific hazard : None



### HMIS III Rating

Health : 1 Slight Hazard - Irritation or minor reversible injury possible  
Flammability : 0 Minimal Hazard - Materials that will not burn  
Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.  
Personal Protection : B  
B - Safety glasses, Gloves

SDS US (GHS HazCom 2012)

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product*