1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product Identifiers

Product Name: Vitastim Nitrifiers
Synonyms: Nitrafix
Product Form: Liquid

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

Identified uses: Promotes nitrification in wastewater treatment plants

1.3 Details of the supplier of the safety data sheet

Company: Aquafix Inc.
2310 Daniels St.
Madison WI 53718
USA

Telephone: +1 888-757-9577
Monday-Friday
7:30am-4:00pm CST

1.4 Emergency telephone number

Emergency Phone#: Chemtrec +1 800-424-9300

2. HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Eye damage/irritation (Category 2B)
Skin corrosion/irritation (Category 3)
Acute Toxicity: Oral (Category 5)

2.2 GHS Label elements, including precautionary statements

Pictogram: N/A
Signal Word: Warning
Hazard Statement(s): May cause mild skin and eye irritation
May be harmful if swallowed
Precautionary Statement(s): Wear protective gloves/protective clothing/eye protection/face protection. Wash thoroughly after handling. Do not eat, drink, or smoke while handling.

2.3 Hazards not otherwise classified (HNOC) or not covered by GHS
3. COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances
Hazardous Components

<table>
<thead>
<tr>
<th>Component</th>
<th>Cas-No.</th>
<th>Concentration %</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>nitrosonomas, nitrospora, nitrosospora, and nitrobacter</td>
<td>N/A</td>
<td>≤5%</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

Ingredients not precisely identified are proprietary or non-hazardous. Product formulation consists of listed materials, non-hazardous ingredients, and naturally occurring microorganisms.

4. FIRST AID MEASURES

4.1 Description of first aid measures
General advice
This product is considered non-toxic, if concerned consult a physician.

In case of skin contact
Wash exposed area with soap and water.

In case of eye contact
Immediately rinse eyes with plenty of water.

If Inhaled
Remove to fresh air.

If Ingested
May cause nausea or diarrhea, drink plenty of water.

4.2 Most important symptoms and effects both acute and delayed
Possible irritation upon contact.

4.3 Indication of any immediate medical attention and special treatment needed
None. If any symptoms persist, seek medical attention.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media
Suitable extinguishing media
Use water, water spray, foam, carbon dioxide (CO2), or dry powder.

Unsuitable extinguishing media
None

5.2 Special hazards arising from the substance or mixture
None

5.3 Special protective equipment for firefighters
No special protective equipment required.

5.4 Further Information
Flash Point (°C) : No data available
Autoignition temperature (°C) : No data available
6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions
No special precautions required. Wear adequate personal protective equipment.

6.3 Method and materials for clean up
Maintain good housekeeping practices. Can be washed away with water. No special disposal method required, except that it be in accordance with current local, state/provincial and federal regulations.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling
Wear personal protection equipment.

7.2 Conditions for safe storage
Risks
Not at risk for corrosion, fire, explosion, or chemical reaction.
Place of storage
Best when refrigerated in a cool, dry space between 41-60 degrees F. Keep out of direct sunlight and do not store with strong oxidizing agents.

7.3 Specific end use
None

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters
Components with work place parameters
None

8.2 Exposure controls
Engineering controls
Handle in accordance with good industrial hygiene and safety practice.

Personal Protective Equipment
Eye/face protection : Protective glasses are recommended
Skin : Hand: Gloves are recommended
      Other: Wear appropriate clothing for work
Respiratory protection : Protective mask is recommended
Thermal protection : None
Environmental exposure : None

9. PHYSICAL & CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties
**Appearance**: Pale yellow liquid

**Odor**: Earthy smell

**Solubility**: Soluble in water

**Boiling point**: No data available

**pH**: 7.0

**Vapor density**: No data available

**Melting point**: No data available

**Vapor pressure**: No data available

**Specific Gravity**: 1.12 gr/cc

**Other information**: None

### 10. STABILITY AND REACTIVITY

10.1 **Reactivity**: None

10.2 **Chemical Stability**: Stable

10.3 **Possibility of hazardous reactions**: None

10.4 **Conditions to avoid**: Strong acids or bases

10.5 **Incompatible materials**: Strong acids or bases. Acids or alkalis may break down biochemical catalysts and inactivate bacterial cultures.

10.6 **Hazardous decomposition products**: None

### 11. TOXICOLOGICAL INFORMATION

11.1 **Information on toxicological effects**

- **Acute toxicity**: May be harmful if swallowed
- **Skin corrosion/irritation**: May cause mild skin irritation
- **Eye damage/irritation**: No known effects
- **Respiratory/skin sensitization**: No known effects, possible allergic sensitization

**CMR** (Carcinogenicity, Mutagenicity, Reproductive toxicity): No known effects

### 12. ECOLOGICAL INFORMATION

<table>
<thead>
<tr>
<th>Test Species</th>
<th>Toxicity Value Type</th>
<th>Toxicity Value</th>
<th>Toxicity Value Units</th>
<th>Exposure</th>
</tr>
</thead>
<tbody>
<tr>
<td><em>Ceriodaphnia dubia</em></td>
<td>LC50</td>
<td>148651</td>
<td>mg/L</td>
<td>48 hours</td>
</tr>
<tr>
<td><em>Pimephales promelas</em></td>
<td>LC50</td>
<td>27728</td>
<td>mg/L</td>
<td>96 hours</td>
</tr>
</tbody>
</table>

12.1 **Toxicity**: No known information is available

12.2 **Persistence and degradability**: No known information is available

12.3 **Bioaccumulative potential**: No known information is available

12.4 **Mobility in soil**: No known information is available
12.5 Results of PBT and vPvB assessment: No known ecological information is available

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods
Product and packaging can be disposed of in regular trash. No special disposal method required. Follow all applicable local laws for recycling, bagging, and disposal of trash.

14. TRANSPORTATION INFORMATION

14.1 UN NUMBER : Not relevant
14.2 UN proper shipping name : Not relevant
14.3 Transportation hazard class : Not classified as dangerous
14.4 Packing group : Not relevant
14.5 Environmental hazards : None
14.6 Special precautions : None
14.7 Further Information : None

15. REGULATORY INFORMATION

Sara/Title III – CERCLA LIST of Hazardous Substances and Reportable Quantities (40 CFR 304.4): This product does not contain an ingredient(s) listed as a hazardous ingredient for Emergency Release Notification under section 304.

Sara/Title III – List of Extremely Hazardous Substances for Emergency Planning and Notification (40 CFR 300 & 305): This product does not contain an ingredient(s) listed as an extremely hazardous substances (EHS) for Emergency Planning under sections 301-303 and for Emergency Release Notification under section 304.

Sara/Title III – List of Toxic Chemicals subject to Release Reporting (Community Right to Know) (40 CFR 372): This product does not contain an ingredient(s) listed as a toxic chemical for Annual Release Reporting Requirements under section 313.

16. OTHER INFORMATION

The information in this SDS was obtained from sources which we believe to be reliable. However, the information is provided without any warranty expressed or implied regarding its correctness. Some information presented and conclusions drawn herein are from sources other than direct test data on the substance itself.

This SDS was prepared and is to be used only for this product. No representation, warranty, or guarantee of any kind, express or implied, is made as to its accuracy, reliability or completeness. We assume no responsibility for any loss, damage or expense direct or consequential arising out of use. It is the user’s
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