

### SECTION 1 Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : LIQUID LINASE NP  
Product code : 523

#### 1.2. Other means of identification

No additional information available

#### 1.3. Recommended use of the chemical and restrictions on use

Use of the substance/mixture : Enzyme detergent  
Restrictions on use : For professional use only

#### 1.4. Supplier's details

Christeyns North America, LLC  
311 Staton Road  
Greenville, NC 27834  
USA  
T 252-756-8616 / 800.869.6171  
[info@christeyns.us](mailto:info@christeyns.us) - [www.christeyns.com](http://www.christeyns.com)

#### 1.5. Emergency phone number

Emergency number : VELOCITY EHS (800) 255-3924 (24 HOURS)  
(For use only in the event of emergencies involving a spill, leak, fire, exposure, or accident involving chemicals)

### SECTION 2 Hazard Identification

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

##### GHS US classification

|                                               |      |                                                      |
|-----------------------------------------------|------|------------------------------------------------------|
| Serious eye damage/eye irritation, Category 1 | H318 | Causes serious eye damage.                           |
| Reproductive toxicity, Category 2             | H361 | Suspected of damaging fertility or the unborn child. |

Full text of H statements : see section 16

#### 2.2. Label elements

##### GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) : Danger  
Hazard statements (GHS US) : H318 - Causes serious eye damage  
H361 - Suspected of damaging fertility or the unborn child  
Precautionary statements (GHS US) : P202 - Do not handle until all safety precautions have been read and understood.  
P280 - Wear protective gloves, protective clothing, and eye protection.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

# LIQUID LINASE NP

## Safety Data Sheet

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

P308+P313 - If exposed or concerned: Get medical advice/attention.

P310 - Immediately call a poison center or doctor.

P501 - Dispose of contents and/or container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulations.

### SECTION 3 Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

| Name                          | Product identifier  | %         |
|-------------------------------|---------------------|-----------|
| Alcohols, C10-16, ethoxylated | CAS-No.: 68002-97-1 | 10 - 30   |
| Boric acid                    | CAS-No.: 10043-35-3 | 0.5 - 1.5 |

Full text of hazard classes and H-statements : see section 16

### SECTION 4 First aid measures

#### 4.1. Description of necessary first-aid measures

|                                       |                                                                                                                                                                                                      |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| First-aid measures after inhalation   | : Remove person to fresh air and keep comfortable for breathing. Treat symptomatically. Get medical attention if symptoms occur.                                                                     |
| First-aid measures after skin contact | : Rinse skin with plenty of water or shower. If irritation persists, get medical attention.                                                                                                          |
| First-aid measures after eye contact  | : Rinse immediately with water for 15 minutes, occasionally lifting upper and lower eyelids. Remove contact lenses, if present, and easy to do. Continue rinsing. Get medical attention immediately. |
| First-aid measures after ingestion    | : Rinse mouth with water if the person is conscious. Do not induce vomiting unless directed by medical personnel. Get medical attention if you feel unwell.                                          |

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

|                                     |                                                                                           |
|-------------------------------------|-------------------------------------------------------------------------------------------|
| Symptoms/injuries after eye contact | : Liquid and vapor corrosive to eyes; will cause permanent damage if not rinsed promptly. |
|-------------------------------------|-------------------------------------------------------------------------------------------|

#### 4.3. Indication of immediate medical attention and special treatment needed, if necessary

No additional information available

### SECTION 5: Fire-fighting measures

#### 5.1. Suitable (and unsuitable) extinguishing media

|                              |                                                                                                         |
|------------------------------|---------------------------------------------------------------------------------------------------------|
| Suitable extinguishing media | : Do not use a water jet as this can spread the fire and may cause the splattering of corrosive liquid. |
|------------------------------|---------------------------------------------------------------------------------------------------------|

#### 5.2. Specific hazards arising from the chemical

|             |                                                     |
|-------------|-----------------------------------------------------|
| Fire hazard | : Decomposition products may include carbon oxides. |
|-------------|-----------------------------------------------------|

#### 5.3. Special protective equipment and precautions for fire-fighters

|                           |                                                                                                                                                                                                                             |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Firefighting instructions | : Use water spray or fog for cooling exposed containers. In case of fire, do not breathe fumes. Move containers from the fire area if you can do so without risk. Prevent firefighting water from entering the environment. |
|---------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

# LIQUID LINASE NP

## Safety Data Sheet

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

Protection during firefighting : Wear a self-contained breathing apparatus. Do not attempt to take action without suitable protective equipment.

## SECTION 6 Accidental release measures

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

#### For non-emergency personnel

Protective equipment : For spills or leaks, contact a supervisor and/or emergency responder. Avoid contact with spilled material and keep unnecessary personnel away.

#### For emergency responders

Protective equipment : See Section 8 for recommended personal protective equipment. Ventilate the area and restrict access to the spill or leak zone. Have emergency procedures in place for treating exposures or incidents. Only trained and authorized personnel equipped with proper protective equipment should perform cleanup.

Environmental precautions : Avoid release onto the ground, into storm sewers, or bodies of water.

### 6.2. Methods and materials for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so. Contain spillage, soak up with non-combustible absorbent material (e.g. sand, earth, diatomaceous earth, vermiculite) and collect all waste in suitable, labeled, and closed containers. Dispose according to local legislation (See Section 13).

## SECTION 7 Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Handle in accordance with good industrial hygiene and safety practices. Use only with adequate ventilation. Avoid contact with skin, eyes, and clothing. Use appropriate personal protection equipment (PPE). Wash thoroughly after handling.

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

Storage conditions : Store upright in a tightly closed, suitably labeled container. Store in a dry, cool, well-ventilated area with appropriate designated containment measures. Keep out of reach of children. Have readily available spill kits with appropriate absorbent materials. Protect from sunlight. Store in original labeled containers.

Incompatible products : Keep away from strong acids, strong bases, flammables/combustibles, oxidizers, and reactive metals (aluminum, zinc, magnesium, iron filings).

## SECTION 8 Exposure controls/personal protection

### 8.1. Control parameters

#### Boric acid (10043-35-3)

##### USA - ACGIH® - Threshold Limit Values

|                  |                                                                             |
|------------------|-----------------------------------------------------------------------------|
| Local name       | Boric acid                                                                  |
| ACGIH® TLV® TWA  | 2 mg/m³ (I - Inhalable particulate matter)                                  |
| ACGIH® TLV® STEL | 6 mg/m³ (I - Inhalable particulate matter)                                  |
| Remark (ACGIH®)  | TLV® Basis: URT irr. Notations: A4 (Not classifiable as a Human Carcinogen) |

# LIQUID LINASE NP

## Safety Data Sheet

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

### Boric acid (10043-35-3)

|                      |            |
|----------------------|------------|
| Regulatory reference | ACGIH 2025 |
|----------------------|------------|

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable guidelines, use only with adequate ventilation. Eye wash facilities and emergency showers must be available when handling this product.

### 8.3. Individual protection measures, such as personal protective equipment

#### Materials for protective clothing:

Wear suitable protective clothing. Long sleeved protective clothing.

#### Hand protection:

Chemical resistant PVC gloves

#### Eye protection:

Safety glasses with side shields.

## SECTION 9 Physical and chemical properties

### 9.1. Basic physical and chemical properties

|                                |                     |
|--------------------------------|---------------------|
| Physical state                 | : Liquid            |
| Color                          | : Amber             |
| Odor                           | : Odorless          |
| Odor threshold                 | : No data available |
| pH                             | : 6.5 – 7.5         |
| Melting point                  | : No data available |
| Freezing point                 | : No data available |
| Boiling point                  | : No data available |
| Flash point                    | : No data available |
| Flammability (solid, gas)      | : No data available |
| Vapor pressure                 | : No data available |
| Relative vapor density at 20°C | : No data available |
| Relative density               | : 8.387 lb/gal      |
| Solubility                     | : No data available |
| Log Pow                        | : No data available |
| Autoignition temperature       | : No data available |
| Decomposition temperature      | : No data available |
| Viscosity, kinematic           | : No data available |
| Explosion limits               | : No data available |
| Particle characteristics       | : No data available |

### Alcohols, C10-16, ethoxylated

|                          |                   |
|--------------------------|-------------------|
| Particle characteristics | No data available |
|--------------------------|-------------------|

### Boric acid

|                          |                   |
|--------------------------|-------------------|
| Particle characteristics | No data available |
|--------------------------|-------------------|

### 9.2. Data relevant with regard to physical hazard classes (supplemental)

No additional information available

# LIQUID LINASE NP

## Safety Data Sheet

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

### SECTION 10 Stability and reactivity

#### 10.1. Reactivity

Not reactive under normal conditions of use, storage, and transport.

#### 10.2. Chemical stability

Stable under recommended handling and storage conditions. Decomposes when overheated or exposed to strong oxidizers or acids/bases.

#### 10.3. Possibility of hazardous reactions

No hazardous polymerization expected. Contact with incompatible materials (strong acids, alkalis, oxidizers) may cause degradation with release of vapors or mild exothermic reactions.

#### 10.4. Conditions to avoid

Avoid excessive heat, open flames, and prolonged exposure to direct sunlight.

#### 10.5. Incompatible materials

Incompatible with strong oxidizing agents, strong acids, and strong bases.

#### 10.6. Hazardous decomposition products

Thermal decomposition may produce carbon oxides (CO, CO<sub>2</sub>) and minor irritating vapors.

### SECTION 11 Toxicological information

#### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Not classified

| Boric acid (10043-35-3) |                                                                                                           |
|-------------------------|-----------------------------------------------------------------------------------------------------------|
| LD50 oral rat           | 2660 mg/kg                                                                                                |
| LD50 dermal rabbit      | > 2000 mg/kg                                                                                              |
| LC50 Inhalation - Rat   | > 2.12 mg/l air Animal: rat, Guideline: OECD Guideline 403 (Acute Inhalation Toxicity), Guideline: other: |

Skin corrosion/irritation : Not classified  
pH: 6.5 – 7.5

Serious eye damage/irritation : Causes serious eye damage.  
pH: 6.5 – 7.5

Respiratory or skin sensitization : Not classified  
Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Suspected of damaging fertility or the unborn child.  
STOT-single exposure : Not classified  
STOT-repeated exposure : Not classified  
Aspiration hazard : Not classified

# LIQUID LINASE NP

## Safety Data Sheet

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

| LIQUID LINASE NP                                                                                                              |                   |
|-------------------------------------------------------------------------------------------------------------------------------|-------------------|
| Viscosity, kinematic                                                                                                          | No data available |
| Alcohols, C10-16, ethoxylated (68002-97-1)                                                                                    |                   |
| Viscosity, kinematic                                                                                                          | No data available |
| Boric acid (10043-35-3)                                                                                                       |                   |
| Viscosity, kinematic                                                                                                          | No data available |
| Symptoms/injuries after eye contact : Liquid and vapor corrosive to eyes; will cause permanent damage if not rinsed promptly. |                   |

## SECTION 12 Ecological information

### 12.1. Ecotoxicity

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

| Alcohols, C10-16, ethoxylated (68002-97-1) |                                                                                                    |
|--------------------------------------------|----------------------------------------------------------------------------------------------------|
| LC50 - Fish [1]                            | 63.704 mg/l Source: ECOSAR                                                                         |
| Boric acid (10043-35-3)                    |                                                                                                    |
| LC50 - Fish [1]                            | 600 mg/l                                                                                           |
| LC50 - Fish [2]                            | 74 mg/l Test organisms (species): Limanda limanda                                                  |
| EC50 72h - Algae [1]                       | 66 mg/l Test organisms (species): Phaeodactylum tricornutum                                        |
| EC50 72h - Algae [2]                       | 54 mg/l Test organisms (species): Phaeodactylum tricornutum                                        |
| NOEC chronic fish                          | 6.4 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio) Duration: '34 d' |

### 12.2. Persistence and degradability

| LIQUID LINASE NP                           |                        |
|--------------------------------------------|------------------------|
| Persistence and degradability              | Not rapidly degradable |
| Alcohols, C10-16, ethoxylated (68002-97-1) |                        |
| Persistence and degradability              | Not rapidly degradable |
| Boric acid (10043-35-3)                    |                        |
| Persistence and degradability              | Not rapidly degradable |

### 12.3. Bioaccumulative potential

| Boric acid (10043-35-3) |      |
|-------------------------|------|
| Log Pow                 | 0.18 |

### 12.4. Mobility in soil

No additional information available

# LIQUID LINASE NP

## Safety Data Sheet

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

### 12.5. Other adverse effects

No additional information available

## SECTION 13 Disposal considerations

- Regional legislation (waste) : Avoid unauthorized disposal. Do not dump into any body of water. Comply with federal, state/provincial and local laws/regulations. Do not reuse empty containers.
- Waste treatment methods : Do not allow the product to contaminate any body of water. Refer to Section 8 for personal protection equipment.

## SECTION 14 Transport information

In accordance with DOT

| DOT                                     |               |
|-----------------------------------------|---------------|
| <b>14.1. UN number</b>                  |               |
| Not regulated for transport             |               |
| <b>14.2. Proper Shipping Name</b>       |               |
|                                         | Not regulated |
| <b>14.3. Transport hazard class(es)</b> |               |
|                                         | Not regulated |
| <b>14.4. Packing group</b>              |               |
|                                         | Not regulated |
| <b>14.5. Environmental hazards</b>      |               |
|                                         | Not regulated |
| No supplementary information available  |               |

### 14.6. Transport in bulk

Not applicable

### 14.7. Special precautions for user

**DOT**

Not regulated

## SECTION 15 Regulatory information

### 15.1. Federal regulations

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

This product or mixture is not known to contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

# LIQUID LINASE NP

## Safety Data Sheet

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

### Alcohols, C10-16, ethoxylated (68002-97-1)

SARA Section 311/312 Hazard Classes

Health hazard - Acute toxicity (any route of exposure)  
Health hazard - Serious eye damage or eye irritation

### 15.2. International regulations

No additional information available

### 15.3. State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer, developmental and/or reproductive harm

## SECTION 16 Other information

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

Issue date : 6/26/2026

### Full text of hazard classes and H-statements

|      |                                                     |
|------|-----------------------------------------------------|
| H318 | Causes serious eye damage                           |
| H361 | Suspected of damaging fertility or the unborn child |

Safety Data Sheet (SDS), USA ML

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.