

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product Identifiers**

Product Name: LIN-28A Antibody [Janelia Fluor® 525]  
Catalog Number: NBP1-77383JF525  
Components: Standard (contains Sodium Borate < 2.0%)

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

Identified Uses: For Research Use Only

**1.3 Details of the supplier of the safety data sheet**

|          |   |                |  |
|----------|---|----------------|--|
| Company: | Novus Biologicals a Bio-Techne Brand<br>10730 E. Briarwood Avenue, Building IV<br>Centennial, CO 80112, USA | Telephone:     | 1-888-506-6887   |
|          |   | Fax:           | 1-303-730-1966   |
|          |   | Internet:      | <a href="http://www.novusbio.com">www.novusbio.com</a>     |
|          |   | Email address: | <a href="mailto:novus@novusbio.com">novus@novusbio.com</a> |

|         |  |                |  |
|---------|--|----------------|--|
| Canada: | 21 Canmotor Ave<br>Toronto, ON M8Z 4E6 | Telephone:     | 1-855-668-8722   |
|         |  | Fax:           | 902-827-6402   |
|         |  | Email address: | <a href="mailto:Canada.inquiries@bio-techne.com">Canada.inquiries@bio-techne.com</a> |

|                 |   |                |  |
|-----------------|---|----------------|--|
| United Kingdom: | 19 Barton Lane<br>Abingdon Science Park<br>Abingdon, OX14 3NB | Telephone:     | 44 (0)1235 529449  |
|                 |   | Fax:           | 44 (0)1235 533420  |
|                 |   | Email address: | <a href="mailto:info.emea@bio-techne.com">info.emea@bio-techne.com</a> |

|        |   |                |  |
|--------|---|----------------|--|
| China: | 1193 Changning Road<br>Unit 1901, Raffles Changning Office<br>Shanghai, China | Telephone:     | 86-400-821-3475  |
|        |   | Fax:           | 76 (021)52371001   |
|        |   | Email address: | <a href="mailto:techsupport.cn@bio-techne.com">techsupport.cn@bio-techne.com</a> |

**1.4 Emergency Telephone Number**

Emergency Tel: US: 303-730-1950 or 888-506-6887 / Europe: +44(0)1235-529449 / China 86-400-821-3475

**2. HAZARDS IDENTIFICATION**

See additional safety data sheets.

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**1.4 Emergency Telephone Number**

For chemical emergency, spill, leak, fire, exposure, or accident call CHEMTREC day or night:  
Within U.S. 1-800-262-8200. Worldwide 1-703-741-5500. Bio-Techne Tel: US: 612-379-2956 or 800-343-7475 / Europe: +44(0)1235-529449 / China 86-400-821-3475

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

Classification according to Regulation (EC) No 1272/2008 [GHS/CLP] or 29 CFR 1910.1200 [OSHA]

Reproductive Toxicity - Category 2

**2.2 Label Elements**

Labeling according to Regulation (EC) No 1272/2008 [GHS/CLP]

Pictogram(s):



Signal Word: Warning

Hazard Statement(s):

H361 Suspected of damaging fertility or the unborn child.

Precautionary Statement(s):

|          |  |
|----------|--|
| P201     | Obtain special instructions before use.                                    |
| P202     | Do not handle until all safety precautions have been read and understood.  |
| P280     | Wear protective gloves/protective clothing/eye protection/face protection. |
| P308+313 | IF exposed or concerned: Get medical advice/ attention.                    |
| P405     | Store locked up.   |
| P501     | Dispose of contents / container to an approved waste disposal plant.       |

**2.3 Other Hazards - None**

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**

Not applicable.

**3.2 Mixtures**

| Component            | CAS No.   | EC No.    | Index No.    | Classification | Conc. |
|----------------------|-----------|-----------|--------------|----------------|-------|
| Sodium Borate < 2.0% | 1303-96-4 | 215-540-4 | 005-011-01-1 | H361           | < 2 % |

**4. FIRST AID MEASURES**

#### 4.1 Description of first aid measures

##### General Advice

If exposed or concerned: Get medical advice/attention

##### If Inhaled

Move person into fresh air. Consult a physician.

##### In Case of Skin Contact

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

##### In Case of Eye Contact

Rinse thoroughly with plenty of water for 15 minutes. Remove contact lenses if easy to do so. Consult a physician.

##### If Swallowed

Rinse mouth with water. Consult a physician.

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

Inhalation: Causes cough or sore throat. Skin: May be absorbed through injured skin. Causes redness. Eyes: Causes eye redness or pain. Ingestion: Causes abdominal pain, convulsions, diarrhea, nausea, vomiting, skin rash.

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

No data available.

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### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing Media

##### Suitable extinguishing media

Use extinguishing media suitable for the surrounding area.

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

Not combustible. Gives off irritating or toxic fumes or gases in a fire.

#### 5.3 Precautions for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

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### 6. ACCIDENTAL RELEASE MEASURES

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

Wear respiratory protection. Ensure adequate ventilation. Wear protective gloves and safety glasses. Do not eat, drink, or smoke in laboratory areas.

#### 6.2 Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let enter drains.

#### 6.3 Methods and materials for containment and cleaning up

Contain spillage, and then collect with non-combustible absorbent material (eg. sand, diatomaceous earth, vermiculite). Place in a container for disposal according to local regulations.

#### 6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

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### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Obtain special instructions before use. Do not eat, drink, or smoke in laboratory areas.

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

Store locked up.

#### 7.3 Specific end uses

Not applicable.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Components with workplace control parameters

Boric Acid. ACGIH - TLV: TWA, 2mg/m<sup>3</sup>; STEL, 6 mg/m<sup>3</sup>. Not classifiable as a Human Carcinogen.

#### 8.2 Exposure controls

##### Appropriate Engineering Controls

Prevent dispersion of dust. Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

##### Personal Protective Equipment

##### Eye / Face Protection

Wear approved safety goggles.

##### Skin Protection

Handle with gloves, plastic or rubber. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

##### Body Protection

Wear suitable protective clothing according to the concentration and amount of the substance at the workplace.

### Respiratory Protection

In case of inadequate ventilation, use a suitable respirator. If the respirator is the sole means of protection, use a full-face supplied air respirator.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

|   |  |                                  |                    |
|---|--|----------------------------------|--------------------|
| <b>Appearance</b>                                     | Lyophilized white powder or clear liquid | <b>Vapor Pressure</b>            | No data available. |
| <b>Odor</b>   | No data available.                       | <b>Vapor Density</b>             | No data available. |
| <b>Odor Threshold</b>                                 | No data available.                       | <b>Relative Density</b>          | No data available. |
| <b>pH</b>   | No data available.                       | <b>Solubility(ies)</b>           | No data available. |
| <b>Melting / Freezing Point</b>                       | No data available.                       | <b>Partition Coefficient</b>     | No data available. |
| <b>Boiling Point / Range</b>                          | No data available.                       | <b>Autoignition Temperature</b>  | No data available. |
| <b>Flash Point</b>                                    | No data available.                       | <b>Decomposition Temperature</b> | No data available. |
| <b>Evaporation Rate</b>                               | No data available.                       | <b>Viscosity</b>                 | No data available. |
| <b>Flammability (Solid, Gas)</b>                      | No data available.                       | <b>Explosive Properties</b>      | No data available. |
| <b>Upper / Lower Flammability or Explosive Limits</b> | No data available.                       | <b>Oxidizing Properties</b>      | No data available. |

### 9.2 Other safety information

No data available.

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4 Conditions to avoid

Heat, moisture.

### 10.5 Incompatible materials

Strong acids/alkalis, strong oxidizing/reducing agents.

### 10.6 Hazardous decomposition products

Strong acids/alkalis, strong oxidizing/reducing agents.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

LD50 Oral - rat - 4,500 - 5,000 mg / kg

#### Skin Corrosion / Irritation

Classified based on available data

#### Serious Eye Damage / Irritation

Classified based on available data

#### Respiratory or Skin Sensitization

Classified based on available data

#### Germ Cell Mutagenicity

Classified based on available data

#### Carcinogenicity

Classified based on available data

#### Reproductive Toxicity

Classified based on available data

#### Specific Target Organ Toxicity - Single Exposure

Classified based on available data

#### Specific Target Organ Toxicity - Repeated Exposure

Classified based on available data

#### Aspiration Hazard

Classified based on available data

#### Symptoms / Routes of Exposure

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest.

Ingestion: There may be irritation of the throat.

Skin: There may be mild irritation at the site of contact.  
Eyes: There may be irritation and redness.  
Delayed / Immediate Effects: No known symptoms.

**Additional Information**

Classified based on available data

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**12. ECOLOGICAL INFORMATION**

**12.1 Toxicity**

No data available.

**12.2 Persistence and degradability**

No data available.

**12.3 Bioaccumulative potential**

No data available.

**12.4 Mobility in soil**

No data available.

**12.5 Results of PBT and vPvB assessment**

No data available.

**12.6 Other adverse effects**

No data available.

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**13. DISPOSAL CONSIDERATIONS**

**13.1 Waste treatment methods**

**Product**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with national, regional, or local legislation.

**Contaminated Packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with national, regional, or local legislation.

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**14. TRANSPORT INFORMATION**

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID, DOT and IATA.

**14.1 UN-Number**

Does not meet the criteria for classification as hazardous for transport.

**14.2 UN proper shipping name**

Does not meet the criteria for classification as hazardous for transport.

**14.3 Transport hazard class(es)**

Does not meet the criteria for classification as hazardous for transport.

**14.4 Packaging group**

Does not meet the criteria for classification as hazardous for transport.

**14.5 Environmental hazards**

Does not meet the criteria for classification as hazardous for transport.

**14.6 Special precautions for users**

Does not meet the criteria for classification as hazardous for transport.

**Additional Transport Information**

Does not meet the criteria for classification as hazardous for transport.

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**15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

**TSCA (Toxic Substances Control Act):** Sodium Borate is listed.

**SARA 313:** None of the components are listed.

**SARA 311/312:** None of the components are listed.

**CERCLA Reportable Quantity:** Not applicable.

**California Proposition 65:** Not applicable.

**15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been made for this product.

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**16. OTHER INFORMATION**

**Further Information**

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This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet