SECTION 1: Identification

1.1. Identification
Product form: Mixtures
Product name: TISAB II
Product code: LC26130

1.2. Recommended use and restrictions on use
Use of the substance/mixture: For laboratory and manufacturing use only.
Recommended use: Laboratory chemicals
Restrictions on use: Not for food, drug or household use

1.3. Supplier
LabChem, Inc.
Jackson's Pointe Commerce Park Building 1000, 1010 Jackson's Pointe Court
Zelienople, PA 16063 - USA
T 412-826-5230 - F 724-473-0647
info@labchem.com - www.labchem.com

1.4. Emergency telephone number
Emergency number: CHEMTREC: 1-800-424-9300 or +1-703-741-5970

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture
GHS US classification
Skin corrosion/irritation Category 2 H315 - Causes skin irritation
Serious eye damage/eye irritation Category 2A H319 - Causes serious eye irritation
Full text of H statements: see section 16

2.2. GHS Label elements, including precautionary statements
GHS US labeling
Hazard pictograms (GHS US):

Signal word (GHS US): Warning
Hazard statements (GHS US):
H315 - Causes skin irritation
H319 - Causes serious eye irritation

Precautionary statements (GHS US):
P264 - Wash exposed skin thoroughly after handling.
P280 - Wear eye protection, protective gloves.
P302+P352 - IF ON SKIN: Wash with plenty of soap and water.
P305+P351+P338 - IF in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P321 - Specific treatment (see supplemental first aid instruction on this label)
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.

2.3. Other hazards which do not result in classification
Other hazards not contributing to the classification: None.

2.4. Unknown acute toxicity (GHS US)
Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances
Not applicable

3.2. Mixtures
Not applicable
### TISAB II Safety Data Sheet

**Name** | **Product identifier** | **%** | **GHS US classification**  
--- | --- | --- | ---  
Water | (CAS-No.) 7732-18-5 | 83.7 | Not classified  
Sodium Chloride | (CAS-No.) 7647-14-5 | 5.8 | Not classified  
Acetic Acid | (CAS-No.) 64-19-7 | 5.7 | Flam. Liq. 3, H226  
 |  |  | Acute Tox. 4 (Inhalation:vapour), H332  
 |  |  | Skin Corr. 1B, H314  
 |  |  | Eye Dam. 1, H318  
 |  |  | Aquatic Acute 3, H402  
Sodium Hydroxide | (CAS-No.) 1310-73-2 | 4.4 | Skin Corr. 1A, H314  
 |  |  | Eye Dam. 1, H318  
 |  |  | Aquatic Acute 3, H402  
CDTA | (CAS-No.) 125572-95-4 | 0.4 | Skin Irrit. 2, H315  
 |  |  | Eye Irrit. 2A, H319  
 |  |  | STOT SE 3, H335  

Full text of hazard classes and 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**

Allow affected person to breathe fresh air. Allow the victim to rest.

**First-aid measures after skin contact**

Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

**First-aid measures after eye contact**

Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.

**First-aid measures after ingestion**

Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

#### 4.2. Most important symptoms and effects (acute and delayed)

**Potential Adverse human health effects and symptoms**

Based on available data, the classification criteria are not met.

**Symptoms/effects after skin contact**

Causes skin irritation.

**Symptoms/effects after eye contact**

Causes serious eye irritation.

**SECTION 5: Fire-fighting measures**

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

**Suitable extinguishing media**


**Unsuitable extinguishing media**

Do not use a heavy water stream.

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

**Fire hazard**

Not flammable.

**Explosion hazard**

Not applicable.

**Reactivity in case of fire**

None.

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

**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.

**SECTION 6: Accidental release measures**

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

**General measures**

None.

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

**Protective equipment**

Safety glasses. Gloves.

**Emergency procedures**

Evacuate unnecessary personnel.

##### 6.1.2. For emergency responders

**Protective equipment**

Equip cleanup crew with proper protection.

**Emergency procedures**

Ventilate area.
6.2 Environmental precautions
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
For containment: Take up liquid spill into inert absorbent material.
Methods for cleaning up: Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

6.4 Reference to other sections
See Heading 8. Exposure controls and personal protection.

SECTION 7: Handling and storage
7.1 Precautions for safe handling
Precautions for safe handling: 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 vapor.
Hygiene measures: Wash exposed skin thoroughly after handling.

7.2 Conditions for safe storage, including any incompatibilities
Storage conditions: Keep only in the original container in a cool, well ventilated place away from: incompatible materials. Keep container closed when not in use.
Incompatible products: Strong oxidizers.
Incompatible materials: Sources of ignition. Direct sunlight.

SECTION 8: Exposure controls/personal protection
8.1 Control parameters

<table>
<thead>
<tr>
<th>Substance</th>
<th>ACGIH TWA (ppm)</th>
<th>ACGIH STEL (ppm)</th>
<th>NIOSH REL (TWA) (mg/m³)</th>
<th>NIOSH REL (TWA) (ppm)</th>
<th>NIOSH REL (STEL) (mg/m³)</th>
<th>NIOSH REL (STEL) (ppm)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid (64-19-7)</td>
<td>10 ppm</td>
<td></td>
<td>25 mg/m³</td>
<td>10 ppm</td>
<td>37 mg/m³</td>
<td>15 ppm</td>
</tr>
<tr>
<td>CDTA (125572-95-4)</td>
<td>Not applicable</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide (1310-73-2)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride (7647-14-5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

8.2 Appropriate engineering controls
Appropriate engineering controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure.

8.3 Individual protection measures/Personal protective equipment
Personal protective equipment:
Gloves. Safety glasses.
Hand protection:
Wear protective gloves.
Eye protection:
Chemical goggles or safety glasses

**Skin and body protection:**
Wear suitable protective clothing

**Respiratory protection:**
Respiratory protection not required in normal conditions

**Personal protective equipment symbol(s):**

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Appearance</td>
<td>Clear, colorless liquid.</td>
</tr>
<tr>
<td>Color</td>
<td>Colorless</td>
</tr>
<tr>
<td>Odor</td>
<td>None</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>5.3 - 5.5</td>
</tr>
<tr>
<td>Melting point</td>
<td>No data available</td>
</tr>
<tr>
<td>Freezing point</td>
<td>No data available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>No data available</td>
</tr>
<tr>
<td>Flash point</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative evaporation rate (butyl acetate=1)</td>
<td>No data available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Non flammable</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative vapor density at 20 °C</td>
<td>No data available</td>
</tr>
<tr>
<td>Relative density</td>
<td>No data available</td>
</tr>
<tr>
<td>Specific gravity / density</td>
<td>1.07 g/ml</td>
</tr>
<tr>
<td>Solubility</td>
<td>Soluble in water</td>
</tr>
<tr>
<td>Log Pow</td>
<td>No data available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, kinematic</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>No data available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>None</td>
</tr>
</tbody>
</table>

#### 9.2. Other information

No additional information available

### SECTION 10: Stability and reactivity

#### 10.1. Reactivity

None.

#### 10.2. Chemical stability

Stable under normal conditions.

#### 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 oxidizers.

10.6. Hazardous decomposition products
Carbon monoxide. Carbon dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Acute toxicity (oral)</th>
<th>Not classified</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity (dermal)</td>
<td>Not classified</td>
</tr>
<tr>
<td>Acute toxicity (inhalation)</td>
<td>Not classified</td>
</tr>
</tbody>
</table>

**Acetic Acid (64-19-7)**

| LD50 oral rat | 3310 mg/kg body weight (Rat, Male / female, Experimental value, Oral) |
| LC50 inhalation rat (mg/l) | 11.4 mg/l (Equivalent or similar to OECD 403, 4 h, Rat, Female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 3310 mg/kg body weight |
| ATE US (vapors) | 11.4 mg/l/4h |
| ATE US (dust, mist) | 11.4 mg/l/4h |

**Sodium Chloride (7647-14-5)**

| LD50 oral rat | 3000 mg/kg |
| LD50 dermal rat | 10000 mg/kg |
| ATE US (dust, mist) | 10500 mg/l/4h |

**Water (7732-18-5)**

| LD50 oral rat | ≥ 90000 mg/kg |
| ATE US (oral) | 90000 mg/kg body weight |

Skin corrosion/irritation : Causes skin irritation.
pH: 5.3 - 5.5

Serious eye damage/irritation : Causes serious eye irritation.
pH: 5.3 - 5.5

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

Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified

**CDTA (125572-95-4)**

Specific target organ toxicity – single exposure : May cause respiratory irritation.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Likely routes of exposure : Skin and eye contact.
Potential Adverse human health effects and symptoms : Based on available data, the classification criteria are not met.
Symptoms/effects after skin contact : Causes skin irritation.
Symptoms/effects after eye contact : Causes serious eye irritation.
# SECTION 12: Ecological information

## 12.1. Toxicity

<table>
<thead>
<tr>
<th>Substance</th>
<th>LC50 fish 1</th>
<th>EC50 Daphnia 1</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TISAB II</strong></td>
<td>1303 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Acetic Acid (64-19-7)</td>
<td>&gt; 1000 mg/l (Equivalent or similar to OECD 203, 96 h, Oncorhynchus mykiss, Semi-static system, Fresh water, Experimental value)</td>
<td>&gt; 1000 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>Sodium Hydroxide (1310-73-2)</td>
<td>45.4 mg/l (96 h, Salmo gairdneri, Static system, Fresh water, Experimental value, Solution &gt;=50%)</td>
<td>40.4 mg/l (48 h, Ceriodaphnia sp., Experimental value, Nominal concentration)</td>
</tr>
<tr>
<td>Sodium Chloride (7647-14-5)</td>
<td>7650 mg/l</td>
<td>1000 mg/l</td>
</tr>
</tbody>
</table>

## 12.2. Persistence and degradability

<table>
<thead>
<tr>
<th>Substance</th>
<th>Persistence and degradability</th>
<th>Biochemical oxygen demand (BOD)</th>
<th>Chemical oxygen demand (COD)</th>
<th>ThOD</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TISAB II</strong></td>
<td>Not established.</td>
<td>0.6 - 0.74 g O₂/g substance</td>
<td>1.03 g O₂/g substance</td>
<td>1.07 g O₂/g substance</td>
</tr>
<tr>
<td>Acetic Acid (64-19-7)</td>
<td>Readily biodegradable in the soil. Readily biodegradable in water.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Hydroxide (1310-73-2)</td>
<td>Biodegradability: not applicable.</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Sodium Chloride (7647-14-5)</td>
<td>Not applicable (inorganic)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Not established.</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

## 12.3. Bioaccumulative potential

<table>
<thead>
<tr>
<th>Substance</th>
<th>Bioaccumulative potential</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TISAB II</strong></td>
<td>Not established.</td>
</tr>
<tr>
<td>Acetic Acid (64-19-7)</td>
<td>3.16 (Pisces, Fresh water, QSAR)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>-0.17 (Experimental value, 25 °C)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Not bioaccumulative.</td>
</tr>
<tr>
<td>Sodium Hydroxide (1310-73-2)</td>
<td>Not bioaccumulative.</td>
</tr>
<tr>
<td>Sodium Chloride (7647-14-5)</td>
<td>Not established.</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Not established.</td>
</tr>
</tbody>
</table>

## 12.4. Mobility in soil

<table>
<thead>
<tr>
<th>Substance</th>
<th>Surface tension</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid (64-19-7)</td>
<td>26.3 mN/m (30 °C)</td>
</tr>
</tbody>
</table>
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<table>
<thead>
<tr>
<th>Acetic Acid (64-19-7)</th>
<th>Ecology - soil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Highly mobile in soil. May be harmful to plant growth, blooming and fruit formation.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Sodium Hydroxide (1310-73-2)</th>
<th>Ecology - soil</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>No (test)data on mobility of the substance available.</td>
</tr>
</tbody>
</table>

12.5. Other adverse effects

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

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

Transportation of Dangerous Goods
Not regulated

Transport by sea
Not regulated

Air transport
Not regulated

SECTION 15: Regulatory information

15.1. US Federal regulations

TISAB II
Listed on the United States TSCA (Toxic Substances Control Act) inventory

<table>
<thead>
<tr>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Health hazard  - Skin corrosion or Irritation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Health hazard  - Serious eye damage or eye irritation</td>
<td></td>
</tr>
</tbody>
</table>

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory except for:

| CDTA | CAS-No. 125572-95-4 | 0.4% |

Acetic Acid (64-19-7)

RQ (Reportable quantity, section 304 of EPA’s List of Lists): 5000 lb

<table>
<thead>
<tr>
<th>SARA Section 311/312 Hazard Classes</th>
<th>Physical hazard  - Flammable (gases, aerosols, liquids, or solids)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Health hazard  - Skin corrosion or Irritation</td>
</tr>
<tr>
<td></td>
<td>Health hazard  - Serious eye damage or eye irritation</td>
</tr>
</tbody>
</table>

Sodium Hydroxide (1310-73-2)

RQ (Reportable quantity, section 304 of EPA’s List of Lists): 1000 lb

| SARA Section 311/312 Hazard Classes | Immediate (acute) health hazard |

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**TISAB II**

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### 15.2. International regulations

#### CANADA

<table>
<thead>
<tr>
<th>Substance</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acetic Acid (64-19-7)</td>
<td>Listed on the Canadian DSL</td>
</tr>
<tr>
<td>Sodium Hydroxide (1310-73-2)</td>
<td>Listed on the Canadian DSL</td>
</tr>
<tr>
<td>Sodium Chloride (7647-14-5)</td>
<td>Listed on the Canadian DSL</td>
</tr>
<tr>
<td>Water (7732-18-5)</td>
<td>Listed on the Canadian DSL</td>
</tr>
</tbody>
</table>

#### EU-Regulations

No additional information available

#### National regulations

No additional information available

### 15.3. US 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

Revision date : 08/07/2019

Other information : None.

Full text of H-phrases: see section 16:

<table>
<thead>
<tr>
<th>H226</th>
<th>Flammable liquid and vapour</th>
</tr>
</thead>
<tbody>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H318</td>
<td>Causes serious eye damage</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H402</td>
<td>Harmful to aquatic life</td>
</tr>
</tbody>
</table>

NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.

NFPA fire hazard : 0 - Materials that will not burn under typical fire conditions, including intrinsically noncombustible materials such as concrete, stone, and sand.

NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.

Hazard 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

- Safety glasses, Gloves
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SDS US LabChem

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