SECTION 1: Identification

1.1. Identification

Product form : Mixture
Trade name : ALBERDINGK ® U 3251

1.2. Recommended use and restrictions on use

Use of the substance/mixture : binding agent

1.3. Supplier

Importer
ALBERDINGK BOLEY INC
6008 West Gate City Boulevard
Greensboro, NC 27407 - USA
T +1-866-220-4750 - F 336-454-5007
Info@Alberdingkusa.com - www.alberdingkusa.com

1.4. Emergency telephone number

Emergency number : Emergency Contact (24-Hour Number): Chemtrec 1-800-424-9300 or 1-703-527-3887

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification
Not classified

2.2. GHS Label elements, including precautionary statements

GHS US labelling
No labeling applicable

2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : Not classified as PBT or vPvB.

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

<table>
<thead>
<tr>
<th>Name</th>
<th>Product identifier</th>
<th>%</th>
<th>GHS US classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>triethylamine</td>
<td>(CAS-No.) 121-44-8</td>
<td>1 - 1.5</td>
<td>Flam. Liq. 2, H225</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Oral), H302</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Dermal), H311</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 3 (Inhalation), H331</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Acute Tox. 4 (Inhalation:dust,mist), H332</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Skin Corr. 1A, H314</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>STOT SE 3, H35</td>
</tr>
</tbody>
</table>

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 victim to breathe 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.

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: Not expected to present a significant hazard under anticipated conditions of normal use.

4.3. **Immediate medical attention and special treatment, if necessary**

No additional information available

**SECTION 5: Fire-fighting measures**

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


Unsuitable extinguishing media: Do not use a heavy water stream.

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

Reactivity: No data available.

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**

6.1.1. **For non-emergency personnel**

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**

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.

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

Storage conditions: Keep container closed when not in use.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Sources of ignition.

Maximum storage period: 6 months

Storage temperature: 10 - 30 °C

**SECTION 8: Exposure controls/personal protection**

8.1. **Control parameters**

<table>
<thead>
<tr>
<th>Triethylamine (121-44-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>ACGIH</td>
</tr>
</tbody>
</table>
8.2. **Appropriate engineering controls**

No additional information available

8.3. **Individual protection measures/Personal protective equipment**

**Personal protective equipment:**

Avoid all unnecessary exposure.

**Hand protection:**

Wear protective gloves.

**Eye protection:**

Chemical goggles or safety glasses

**Respiratory protection:**

Wear appropriate mask

**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
- **Appearance:** Liquid.
- **Color:** White
- **Odor:** characteristic
- **Odor threshold:** No data available
- **pH:** 7 - 8
- **Melting point:** No data available
- **Freezing point:** No data available
- **Boiling point:** No data available
- **Flash point:** No data available
- **Relative evaporation rate (butyl acetate=1):** No data available
- **Flammability (solid, gas):** Non flammable.
- **Vapor pressure:** No data available
- **Relative vapor density at 20 °C:** No data available
- **Relative density:** No data available
- **Specific gravity / density:** 1.0 - 1.1 g/cm³
- **Solubility:** Miscible with water.
- **Log Pow:** No data available
- **Auto-ignition temperature:** No data available
- **Decomposition temperature:** No data available
- **Viscosity, kinematic:** No data available
- **Viscosity, dynamic:** 20 - 200 mPa·s
ALBERDINGK ® U 3251
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

9.2. Other information
Percent Solids : 39 - 41 %

SECTION 10: Stability and reactivity

10.1. Reactivity
No data available.

10.2. Chemical stability
Not established.

10.3. Possibility of hazardous reactions
Not established.

10.4. Conditions to avoid
Extremely high or low temperatures.

10.5. Incompatible materials
Strong acids. Strong bases.

10.6. Hazardous decomposition products
No additional information.

SECTION 11: Toxicological information

11.1. Information on toxicological effects
Acute toxicity : Not classified

<table>
<thead>
<tr>
<th>triethylamine (121-44-8)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</td>
</tr>
<tr>
<td>LC50 inhalation rat (mg/l)</td>
</tr>
<tr>
<td>ATE US (oral)</td>
</tr>
<tr>
<td>ATE US (dermal)</td>
</tr>
<tr>
<td>ATE US (gases)</td>
</tr>
<tr>
<td>ATE US (vapors)</td>
</tr>
<tr>
<td>ATE US (dust, mist)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation : Not classified
pH: 7 - 8

Serious eye damage/irritation : Not classified
pH: 7 - 8

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

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.

Symptoms/effects : Not expected to present a significant hazard under anticipated conditions of normal use.
SECTION 12: Ecological information

12.1. Toxicity

**triethylamine (121-44-8)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>LC50 fish 1</td>
<td>24 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oryzias latipes, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>ErC50 (algae)</td>
<td>8 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Fresh water, Experimental value)</td>
</tr>
</tbody>
</table>

12.2. Persistence and degradability

**ALBERDINGK ® U 3251**

Persistence and degradability: Not established.

**triethylamine (121-44-8)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Persistence and degradability</td>
<td>Readily biodegradable in water.</td>
</tr>
<tr>
<td>Biochemical oxygen demand (BOD)</td>
<td>&lt; 0.001 g O₂/g substance</td>
</tr>
<tr>
<td>Chemical oxygen demand (COD)</td>
<td>1.02 g O₂/g substance</td>
</tr>
</tbody>
</table>

12.3. Bioaccumulative potential

**ALBERDINGK ® U 3251**

Bioaccumulative potential: Not established.

**triethylamine (121-44-8)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>BCF fish 1</td>
<td>&lt; 0.5 (OECD 305: Bioconcentration: Flow-Through Fish Test, 42 day(s), Cyprinus carpio, Fresh water, Experimental value)</td>
</tr>
<tr>
<td>Log Pow</td>
<td>1.45 (Experimental value, Other)</td>
</tr>
<tr>
<td>Bioaccumulative potential</td>
<td>Low potential for bioaccumulation (BCF &lt; 500).</td>
</tr>
</tbody>
</table>

12.4. Mobility in soil

**triethylamine (121-44-8)**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Surface tension</td>
<td>0.021 N/m (20 °C)</td>
</tr>
<tr>
<td>Log Koc</td>
<td>2.56 (log Koc, Other, Calculated value)</td>
</tr>
<tr>
<td>Ecology - soil</td>
<td>Low potential for adsorption in soil.</td>
</tr>
</tbody>
</table>

12.5. Other adverse effects

Other information: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Disposal methods

Product/Packaging 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 applicable

Transportation of Dangerous Goods

Not applicable

Transport by sea

Not applicable

Air transport

Not applicable
SECTION 15: Regulatory information

15.1. US Federal regulations

*triethylamine (121-44-8)*
- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- Subject to reporting requirements of United States SARA Section 313
- Listed on EPA Hazardous Air Pollutant (HAPS)
- CERCLA RQ 5000 lb

15.2. International regulations

**CANADA**

ALBERDINGK ® U 3251
- Listed on the Canadian DSL (Domestic Substances List)

**triethylamine (121-44-8)**
- Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**
- No additional information available

**National regulations**

ALBERDINGK ® U 3251
- Listed on the United States TSCA (Toxic Substances Control Act) inventory
- Simplified Notification (SN) on the Chinese IECSC (Inventory of Existing Chemical Substances)
- Polymer of Low Concern Exemption on the Korean ECL (Existing Chemicals List)

**triethylamine (121-44-8)**
- Listed on EPA Hazardous Air Pollutant (HAPS)

15.3. US State regulations

**triethylamine (121-44-8)**
- U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

Other information : None.

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H225</th>
<th>Highly flammable liquid and vapour</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin</td>
</tr>
<tr>
<td>H314</td>
<td>Causes severe skin burns and eye damage</td>
</tr>
<tr>
<td>H331</td>
<td>Toxic if inhaled</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
</tbody>
</table>

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.