1. Product and Company Identification

Product Code: 441-LTB
Product Name: 441 Water Based Urethane - Light Tint Base (Matte) Part A
Trade Name: 441 Water Based Urethane - Light Tint Base (Matte) Part A

Manufacturer Information

Company Name: Epoxy Systems, Inc.
20774 W Pennsylvania Ave
Dunnellon, FL 34431

Phone Number: +1 (352) 489-1666
Emergency Contact: PERS (USA) (800)633-8253
Alternate Emergency Contact: PERS (International) +1 (801) 629-0667

Intended Use: Industrial floor coatings.

2. Hazards Identification

GHS Classification

<table>
<thead>
<tr>
<th>Health</th>
<th>Flammability</th>
<th>Physical</th>
<th>PPE</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>1</td>
<td>0</td>
<td>X</td>
</tr>
</tbody>
</table>

GHS Hazard Phrases

H320 - Causes eye irritation.
H316 - Causes mild skin irritation.
H335 - May cause respiratory irritation.
H303 - May be harmful if swallowed.

GHS Precaution Phrases

P103 - Read label before use. P281 - Use personal protective equipment as required.
P262 - Do not get in eyes, on skin, or on clothing. P261 - Avoid breathing mist/vapors/spray.

GHS Response Phrases

P305+351+338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313 - If eye irritation persists, get medical advice/attention.
P302+352 - IF ON SKIN: Wash with plenty of soap and water. P332+313 - If skin irritation occurs, get medical advice/attention.
P304+340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P314 - Get medical attention/advice if you feel unwell.

GHS Storage and Disposal Phrases

P404 - Store in a closed container.
P402 - Store in a dry place.
P401 - Store at 45-80 degrees Fahrenheit.

Potential Health Effects (Acute and Chronic)

May cause eye irritation. May cause skin irritation. May cause respiratory irritation.
Inhalation
May cause respiratory irritation.

Skin Contact
May cause skin irritation.

Eye Contact
May cause eye irritation.

Ingestion
May be harmful if swallowed.

Medical Conditions Generally Aggravated By Exposure
Skin disorders, Respiratory disorders, Eye disorders, Skin Allergies.

OSHA Regulatory Status:
This material is classified as hazardous under OSHA regulations.

3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Titanium dioxide</td>
<td>13463-67-7</td>
<td>20 - 35 %</td>
</tr>
<tr>
<td>2. Triethanolamine</td>
<td>102-71-6</td>
<td>1.0 - 5.0 %</td>
</tr>
<tr>
<td>3. 2-Propanol, 1-Butoxy-</td>
<td>5131-66-8</td>
<td>1.0 - 5.0 %</td>
</tr>
<tr>
<td>4. Wetting Agent</td>
<td>NA</td>
<td>1.0 - 5.0 %</td>
</tr>
<tr>
<td>5. N-Methyl-2-pyrrolidone</td>
<td>872-50-4</td>
<td>&lt;2.0 %</td>
</tr>
</tbody>
</table>

4. First Aid Measures

Emergency and First Aid Procedures

In Case of Inhalation
If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If experiencing respiratory symptoms: Get medical attention immediately.

In Case of Skin Contact
In case of contact, immediately wash skin with soap and copious amounts of water. Remove contaminated clothing and shoes. Get medical attention if irritation develops or persists.

In Case of Eye Contact
In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

In Case of Ingestion
If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately. For further assistance, contact your local Poison Control Center.

Signs and Symptoms Of Exposure
Mild irritation effect.

5. Fire Fighting Measures

Flash Pt: NA  Method Used: Not Applicable
Explosive Limits: LEL: NE  UEL: NE
Autoignition Pt: No data available.

Fire Fighting Instructions
Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes. Use water spray to cool unopened containers.

Flammable Properties and Hazards
Product will not support combustion as supplied. Product is not considered a fire hazard. Closed containers may rupture (due to build up in pressure) when exposed to extreme heat.
Hazardous Combustion Products
In a fire, product may produce the following: Carbon monoxide, Carbon dioxide.

Suitable Extinguishing Media
Will not support combustion.

Unsuitable Extinguishing Media
Will not support combustion.

6. Accidental Release Measures

Steps To Be Taken In Case Material Is Released Or Spilled
PROCEDURE TO BE FOLLOWED IN CASE OF LEAK OR SPILL.
Evacuate area. Absorb with sand or vermiculite and place in closed containers for disposal. Ventilate the area.

Protective Precautions, Protective Equipment and Emergency Procedures
Wear respirator, chemical safety goggles, rubber boots, and heavy rubber gloves.

Environmental Precautions
Prevent entry into waterways, sewers, basements or confined areas.

7. Handling and Storage

Hazard Label Information:
Avoid contact with skin and eyes. Do not get on skin and clothing. Keep from freezing. Store in a closed container.

Precautions To Be Taken in Handling
Provide adequate ventilation. Do not breathe vapor. Do not get in eyes, on skin or on clothing.

Precautions To Be Taken in Storing
Keep from freezing. Keep container closed when not in use.

Other Precautions
Wash thoroughly after handling.

8. Exposure Controls/Personal Protection

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>OSHA PEL</th>
<th>ACGIH TLV</th>
<th>Other Limits</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Titanium dioxide</td>
<td>13463-67-7</td>
<td>15 (dust) mg/m3</td>
<td>10 mg/m3</td>
<td>No data.</td>
</tr>
<tr>
<td>2. Triethanolamine</td>
<td>102-71-6</td>
<td>No data.</td>
<td>5 mg/m3</td>
<td>No data.</td>
</tr>
<tr>
<td>3. 2-Propanol, 1-Butoxy-</td>
<td>5131-66-8</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
<tr>
<td>4. Wetting Agent</td>
<td>NA</td>
<td>No data.</td>
<td>No data.</td>
<td>No data.</td>
</tr>
</tbody>
</table>

Protective Equipment Summary - Hazard Label Information:
Neoprene gloves   Safety glasses, or goggles. Impervious clothing.

Respiratory Equipment (Specify Type)
Normally when good engineering controls are used, no respiratory protection is needed. However, if cured product is abraded by sanding or grinding use a NIOSH approved air-purifying respirator. Where risk assessment shows air-purifying respirators are appropriate use a dust mask type N95 (US) or type P1 (EN 143) respirator. A NIOSH/MSHA approved air purifying respirator with an organic vapor cartridge or canister may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Protection provided by air purifying respirators is limited. Use a positive pressure air supplied respirator if there is any potential for an uncontrolled release, exposure levels are not known, or any other circumstances where air purifying respirators may not provide adequate protection.

Eye Protection
Safety glasses, or goggles.

Protective Gloves
Nitrile rubber and Neoprene are recommended.
Other Protective Clothing
Where splashing is possible, full chemically resistant protective clothing, safety glasses or face shield and boots are required.

Engineering Controls (Ventilation etc.)
Good general ventilation should be sufficient to control airborne levels. Safety shower and eye bath.

Work/Hygienic/Maintenance Practices
Wash contaminated clothing before reuse. Discard contaminated shoes. Wash thoroughly after handling.

Environmental Exposure Controls
Avoid release to the environment. Avoid runoff into storm sewers and ditches which lead to waterways.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical States</td>
<td>Liquid</td>
</tr>
<tr>
<td>Melting Point</td>
<td>No data.</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>212.00 F</td>
</tr>
<tr>
<td>Autoignition Pt</td>
<td>No data.</td>
</tr>
<tr>
<td>Flash Pt</td>
<td>NA Method Used: Not Applicable</td>
</tr>
<tr>
<td>Explosive Limits</td>
<td>LEL: NE UEL: NE</td>
</tr>
<tr>
<td>Specific Gravity (Water = 1)</td>
<td>1.03</td>
</tr>
<tr>
<td>Density</td>
<td>~ 8.6</td>
</tr>
<tr>
<td>Vapor Pressure (vs. Air or mm Hg)</td>
<td>NE</td>
</tr>
<tr>
<td>Vapor Density (vs. Air = 1)</td>
<td>NE</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>NE</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Soluble</td>
</tr>
<tr>
<td>Solubility Notes</td>
<td>Water soluble.</td>
</tr>
<tr>
<td>Percent Volatile</td>
<td>&gt;= 70.0 % by volume.</td>
</tr>
<tr>
<td>HAP / Volume</td>
<td>NP</td>
</tr>
<tr>
<td>Saturated Vapor Concentration</td>
<td>NE</td>
</tr>
</tbody>
</table>

**Appearance and Odor**
White. Faint.

### 10. Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Stability</td>
<td>Unstable [ ] Stable [ X ]</td>
</tr>
<tr>
<td>Reactivity</td>
<td>None known.</td>
</tr>
<tr>
<td>Conditions To Avoid - Instability</td>
<td>None known.</td>
</tr>
<tr>
<td>Incompatibility - Materials To Avoid</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous Decomposition Or Byproducts</td>
<td>None known.</td>
</tr>
<tr>
<td>Possibility of Hazardous Polymerization</td>
<td>Will occur [ ] Will not occur [ X ]</td>
</tr>
</tbody>
</table>

**Conditions To Avoid - Hazardous Reactions**
None known.
11. Toxicological Information

**Toxicological Information**
Product not considered to be a toxic mixture.

**Chronic Toxicological Effects**
No data available.

**Irritation or Corrosion**
No data available.

**Symptoms related to Toxicological Characteristics**
No data available.

### Hazardous Components (Chemical Name)

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>NTP</th>
<th>IARC</th>
<th>ACGIH</th>
<th>OSHA</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Titanium dioxide</td>
<td>13463-67-7</td>
<td>n.a.</td>
<td>2B</td>
<td>A4</td>
<td>n.a.</td>
</tr>
<tr>
<td>2. Triethanolamine</td>
<td>102-71-6</td>
<td>n.a.</td>
<td>3</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>3. 2-Propanol, 1-Butoxy-</td>
<td>5131-66-8</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
<tr>
<td>4. Wetting Agent</td>
<td>NA</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
<td>n.a.</td>
</tr>
</tbody>
</table>

12. Ecological Information

**General Ecological Information**
Do not empty into drains. Avoid release to the environment.

**Results of PBT and vPvB assessment**
No data available.

**Persistence and Degradability**
No data available.

**Bioaccumulative Potential**
not reported, unknown.

**Mobility in Soil**
not reported, unknown.

13. Disposal Considerations

**Waste Disposal Method**
Incinerate or dispose of unused material, residues and containers in a licensed facility in accordance with all applicable local, state and federal regulations. Do not discharge substance/product into sewage system.

14. Transport Information

**LAND TRANSPORT (US DOT)**

- **DOT Proper Shipping Name**: Not Regulated.
- **Precautionary Label**: May cause skin, eye, and respiratory irritation. Always read Safety Material Data Sheet before use.

**AIR TRANSPORT (ICAO/IATA)**

- **ICAO/IATA Shipping Name**: Not Regulated.

**MARINE TRANSPORT (IMDG/IMO)**

- **IMDG/IMO Shipping Name**: Not Regulated.

15. Regulatory Information

**US EPA SARA Title III**

<table>
<thead>
<tr>
<th>Hazardous Components (Chemical Name)</th>
<th>CAS #</th>
<th>Sec.302 (EHS)</th>
<th>Sec.304 RQ</th>
<th>Sec.313 (TRI)</th>
<th>Sec.110</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Titanium dioxide</td>
<td>13463-67-7</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>
SAFETY DATA SHEET
441 Water Based Urethane - Light Tint Base
(Matte) Part A

Hazardous Components (Chemical Name) | CAS # | Sec.302 (EHS) | Sec.304 RQ | Sec.313 (TRI) | Sec.110
--- | --- | --- | --- | --- | ---
2. Triethanolamine | 102-71-6 | No | No | No | No
3. 2-Propanol, 1-Butoxy- | 5131-66-8 | No | No | No | No
4. Wetting Agent | NA | No | No | No | No
5. N-Methyl-2-pyrrolidone | 872-50-4 | No | Yes | No | No

Regulatory Information

SARA Section 311/312: Acute Health Hazard.

16. Other Information

CA=CIRCA  NA=NOT AVAILABLE  NE=NOT ESTABLISHED  NR=NOT REGULATED  NP= NOT APPLICABLE  PR=PROPRIETARY  TS=TRADE SECRET  ?=UNKNOWN.

Company Policy or Disclaimer

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