# SECTION 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

<table>
<thead>
<tr>
<th>Attribute</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product form</td>
<td>Mixture</td>
</tr>
<tr>
<td>Product name</td>
<td>RAPID SYSTEM 4:1 PRIMER HARDENER (RAPIDPH-US)</td>
</tr>
<tr>
<td>Product group</td>
<td>2K Hardener</td>
</tr>
<tr>
<td>Other means of identification</td>
<td>UP6401, UP6425</td>
</tr>
</tbody>
</table>

Component of: UP6315

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

## 1.3. Details of the supplier of the safety data sheet

**Supplier**

U-POL US Inc  
108 Commerce Way  
Stockertown PA 18083 - USA  
T 1-800-940-7824 - F 1-800-787-5150  
technical.department@u-pol.com - www.u-pol.com

## 1.4. Emergency telephone number

**Emergency number**: CHEMTREC - 1-800-424-9300

# SECTION 2: Hazards identification

## 2.1. Classification of the substance or mixture

**GHS-US classification**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>H26</td>
<td>H34</td>
<td>H37</td>
<td>H336</td>
</tr>
</tbody>
</table>

## 2.2. Label elements

**GHS-US labeling**

**Hazard pictograms (GHS-US)**

<table>
<thead>
<tr>
<th>Pictogram</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>GHS02</td>
<td>Flammable</td>
</tr>
<tr>
<td>GHS07</td>
<td>Health</td>
</tr>
<tr>
<td>GHS08</td>
<td>Other risks</td>
</tr>
</tbody>
</table>

**Signal word (GHS-US)**

Danger

**Hazard statements (GHS-US)**

- H226 - Flammable liquid and vapor
- H317 - May cause an allergic skin reaction
- H334 - May cause an allergy or asthma symptoms or breathing difficulties if inhaled
- H336 - May cause drowsiness or dizziness

**Precautionary statements (GHS-US)**

- P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
- P261 - Avoid breathing vapors, spray, fume.
- P280 - Wear face protection, protective gloves, protective clothing.
- P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
- P312 - Call a POISON CENTER if you feel unwell
- P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

## 2.3. Other hazards

No additional information available
### 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>n-butyl acetate</td>
<td>(CAS-No.) 123-86-4</td>
<td>43 - 63</td>
<td>Flam. Liq. 3, H226 STOT SE 3, H336</td>
</tr>
<tr>
<td>Aliphatic Polyisocyanate</td>
<td>(CAS-No.) 28182-81-2</td>
<td>5 - 23</td>
<td>Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335</td>
</tr>
<tr>
<td>Hexamethylene-1,6-diisocyanate</td>
<td>(CAS-No.) 822-06-0</td>
<td>&lt; 5</td>
<td>Acute Tox. 4 (Oral), H302 Acute Tox. 1 (Inhalation), H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335</td>
</tr>
</tbody>
</table>

Full text of H-phrases: see section 16

---

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

**First-aid measures general**: Call a poison center/doctor/physician if you feel unwell.

**First-aid measures after inhalation**: Remove person to fresh air and keep comfortable for breathing. Call a poison center/doctor/physician if you feel unwell.

**First-aid measures after skin contact**: Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash occurs: Get medical advice/attention.

**First-aid measures after eye contact**: Rinse eyes with water as a precaution.

**First-aid measures after ingestion**: Call a poison center/doctor/physician if you feel unwell.

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

**Symptoms/effects**: May cause drowsiness or dizziness.

**Symptoms/effects after inhalation**: May cause an allergy or asthma symptoms or breathing difficulties if inhaled.

**Symptoms/effects after skin contact**: May cause an allergic skin reaction.

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

Treat symptomatically.

---

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

**Suitable extinguishing media**: Water spray. Dry powder. Foam. Carbon dioxide.

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

**Fire hazard**: Flammable liquid and vapor.

**Reactivity**: Flammable liquid and vapor.

#### 5.3. Advice for firefighters

**Protection during firefighting**: Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

---

### SECTION 6: Accidental release measures

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

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

**Emergency procedures**: Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing vapors, fume. Avoid contact with skin and eyes.

##### 6.1.2. For emergency responders

**Protective equipment**: Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

#### 6.2. Environmental precautions

Avoid release to the environment.
6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.

Other information: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing vapors, fume. Avoid contact with skin and eyes.

Hygiene measures: Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures: Ground/bond container and receiving equipment.

Storage conditions: Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

<table>
<thead>
<tr>
<th>RAPID SYSTEM 4:1 PRIMER HARDENER (RAPIDPH-US)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
</tr>
<tr>
<td>OSHA</td>
</tr>
</tbody>
</table>

n-butyl acetate (123-86-4)

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>ACGIH TWA (ppm)</th>
<th>150 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACGIH</td>
<td>ACGIH STEL (ppm)</td>
<td>200 ppm</td>
</tr>
<tr>
<td>ACGIH</td>
<td>Remark (ACGIH)</td>
<td>Eye &amp; URT irr</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>710 mg/m³</td>
</tr>
<tr>
<td>OSHA</td>
<td>OSHA PEL (TWA) (ppm)</td>
<td>150 ppm</td>
</tr>
</tbody>
</table>

Hexamethylene-1,6-diisocyanate (822-06-0)

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Aliphatic Polyisocyanate (28182-81-2)

<table>
<thead>
<tr>
<th>ACGIH</th>
<th>Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>OSHA</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Appropriate engineering controls: Ensure good ventilation of the work station.

Hand protection: Protective gloves.

Eye protection: Safety glasses.

Skin and body protection: Wear suitable protective clothing.

Respiratory protection: Wear respiratory protection.

Environmental exposure controls: Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state: Liquid
### Appearance
- Viscous.

### Color
- Colorless.

### Odor
- Characteristic.

### Odor threshold
- No data available.

### pH
- No data available.

### Relative evaporation rate (butyl acetate=1)
- No data available.

### Melting point
- Not applicable.

### Freezing point
- No data available.

### Boiling point
- No data available.

### Flash point
- 22 °C.

### Auto-ignition temperature
- No data available.

### Decomposition temperature
- 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
- 1.9725.

### Solubility
- No data available.

### Log Pow
- No data available.

### Log Kow
- No data available.

### Viscosity, kinematic
- No data available.

### Viscosity, dynamic
- No data available.

### Explosive properties
- No data available.

### Oxidizing properties
- No data available.

### Explosion limits
- No data available.

### VOC content - Actual
- 279 g/l.

### VOC content - Regulatory
- 279 g/l.

### Section 10: Stability and reactivity

10.1. **Reactivity**
- Flammable liquid and vapor.

10.2. **Chemical stability**
- Stable under normal conditions.

10.3. **Possibility of hazardous reactions**
- No dangerous reactions known under normal conditions of use.

10.4. **Conditions to avoid**

10.5. **Incompatible materials**
- No additional information available

10.6. **Hazardous decomposition products**
- Under normal conditions of storage and use, hazardous decomposition products should not be produced.

### Section 11: Toxicological information

11.1. **Information on toxicological effects**

**Acute toxicity**
- Not classified

<table>
<thead>
<tr>
<th>Compound</th>
<th>Effect</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>n-butyl acetate (123-86-4)</strong></td>
<td>LD50 oral rat</td>
<td>&gt; 21 mg/kg</td>
</tr>
<tr>
<td><strong>Hexamethylene-1,6-diisocyanate (822-06-0)</strong></td>
<td>ATE US (oral)</td>
<td>500 mg/kg body weight</td>
</tr>
<tr>
<td></td>
<td>ATE US (gases)</td>
<td>10 ppmV/4h</td>
</tr>
<tr>
<td></td>
<td>ATE US (vapors)</td>
<td>0.05 mg/l/4h</td>
</tr>
</tbody>
</table>

| Hexamethylene-1,6-diisocyanate (822-06-0) |  
|----------------------------------------|------------------|
| ATE US (dust, mist)                    | 0.005 mg/l/4h    |

<table>
<thead>
<tr>
<th>Aliphatic Polyisocyanate (28182-81-2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 oral rat</td>
</tr>
<tr>
<td>LD50 dermal rat</td>
</tr>
<tr>
<td>LD50 dermal rabbit</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
- **Serious eye damage/irritation**: Not classified
- **Respiratory or skin sensitization**: May cause an allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
- **Germ cell mutagenicity**: Not classified
- **Carcinogenicity**: Not classified
- **Reproductive toxicity**: Not classified
- **Specific target organ toxicity – single exposure**: May cause drowsiness or dizziness.
- **Specific target organ toxicity – repeated exposure**: Not classified
- **Aspiration hazard**: Not classified
- **Symptoms/effects after inhalation**: May cause an allergy or asthma symptoms or breathing difficulties if inhaled.
- **Symptoms/effects after skin contact**: May cause an allergic skin reaction.

**SECTION 12: Ecological information**

**12.1. Toxicity**

Ecology - general: The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

**12.2. Persistence and degradability**

No additional information available

**12.3. Bioaccumulative potential**

No additional information available

**12.4. Mobility in soil**

No additional information available

**12.5. Other adverse effects**

Effect on the ozone layer: No additional information available

**SECTION 13: Disposal considerations**

**13.1. Waste treatment methods**

Waste treatment methods: Dispose of contents/container in accordance with licensed collector’s sorting instructions.

Additional information: Flammable vapors may accumulate in the container.

**SECTION 14: Transport information**

In accordance with DOT

- **Transport document description**: UN1263 Paint related material, 3, III
- **UN-No. (DOT)**: UN1263
- **Proper Shipping Name (DOT)**: Paint related material
- **Class (DOT)**: 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
RAPID SYSTEM 4:1 PRIMER HARDENER (RAPIDPH-US)
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Hazard labels (DOT) : 3 - Flammable liquid

Packing group (DOT) : III - Minor Danger
DOT Special Provisions (49 CFR 172.102) : B1 - If the material has a flash point at or above 38 C (100 F) and below 93 C (200 F), then the bulk packaging requirements of 173.241 of this subchapter are applicable. If the material has a flash point of less than 38 C (100 F), then the bulk packaging requirements of 173.242 of this subchapter are applicable.
B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672).
T2 - 1.5 178.274(d)(2) Normal............. 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP29 - A portable tank having a minimum test pressure of 1.5 bar (150.0 kPa) may be used provided the calculated test pressure is 1.5 bar or less based on the MAWP of the hazardous materials, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.

DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Packaging Non Bulk (49 CFR 173.xxx) : 173
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 60 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 220 L
DOT Vessel Stowage Location : A - The material may be stowed “on deck” or “under deck” on a cargo vessel and on a passenger vessel.

Additional information
Emergency Response Guide (ERG) Number : 128
Other information : No supplementary information available.

ADR
Transport document description : UN 1263 PAINT or PAINT RELATED MATERIAL, 3, III, (D/E)
Packing group (ADR) : III
Class (ADR) : 3 - Flammable liquid
Hazard identification number (Kemler No.) : 30
Classification code (ADR) : F1
Hazard labels (ADR) : 3 - Flammable liquids

Orange plates : 30 1263
Tunnel restriction code (ADR) : D/E
LQ : 5l
Excepted quantities (ADR) : E1
SECTION 15: Regulatory information

15.1. US Federal regulations

**n-butyl acetate (123-86-4)**

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Not subject to reporting requirements of the United States SARA Section 313

| CERCLA RQ  | 5000 lb |

15.2. International regulations

**CANADA**

**n-butyl acetate (123-86-4)**

Listed on the Canadian DSL (Domestic Substances List)

**EU-Regulations**

No additional information available

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

| Flam. Liq. 3 | H226  |
| Skin Sens. 1 | H317  |
| STOT SE 3 | H336  |

Full text of H statements : see section 16

**Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]**

15.2.2. National regulations

15.3. US State regulations

SECTION 16: Other information

Revision date : 11/27/2017

Full text of H-phrases:

<table>
<thead>
<tr>
<th>H226</th>
<th>Flammable liquid and vapor</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed</td>
</tr>
<tr>
<td>H315</td>
<td>Causes skin irritation</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction</td>
</tr>
<tr>
<td>H319</td>
<td>Causes serious eye irritation</td>
</tr>
<tr>
<td>H330</td>
<td>Fatal if inhaled</td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled</td>
</tr>
<tr>
<td>H334</td>
<td>May cause an allergy or asthma symptoms or breathing difficulties if inhaled</td>
</tr>
<tr>
<td>H335</td>
<td>May cause respiratory irritation</td>
</tr>
<tr>
<td>H336</td>
<td>May cause drowsiness or dizziness</td>
</tr>
</tbody>
</table>

SDS US UPOL

11/27/2017 EN (English US) SDS ID: RAPIDPH-US 7/8
RAPID SYSTEM 4:1 PRIMER HARDENER (RAPIDPH-US)
Safety Data Sheet
according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

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