

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

#### 1.1. Product identifier

**Product name:** UP2321, UP2322, UP2324, UP2325 SYSTEM 20 STANDARD HARDENER

**Product code:** S2032

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

**Use of substance / mixture:** HARDENER CONTAINS ISOCYANATE, XYLENE, MIXTURE OF SOLVENTS

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

**Company name:** U-POL US Inc.  
630 Selvaggio Drive  
Suite 300  
Nazareth  
PA 18064  
USA

**Tel:** 1-800-340-7824

**Fax:** 1-800-787-5150

**Email:** technical:u-pol.com

#### 1.4. Emergency telephone number

**Emergency tel:** 1-800-424-9300 (CHEMTREC)

### Section 2: Hazards identification

#### 2.1. Classification of the substance or mixture

**Classification under CHIP:** -: R10; Xn: R20/21; Xi: R38; Sens.: R43

**Most important adverse effects:** Flammable. Harmful by inhalation and in contact with skin. Irritating to skin. May cause sensitisation by skin contact.

**Classification under CLP:** This product has no classification under CLP.

#### 2.2. Label elements

**Label elements under CHIP:**

**Hazard symbols:** Harmful.



**Risk phrases:** R10: Flammable.  
R20/21: Harmful by inhalation and in contact with skin.  
R38: Irritating to skin.  
R43: May cause sensitisation by skin contact.

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**Safety phrases:** S23: Do not breathe vapour/spray  
S24: Avoid contact with skin.  
S36/37: Wear suitable protective clothing and gloves.  
S42: During fumigation / spraying wear suitable respiratory equipment.

**Precautionary phrases:** Contains isocyanates. See information supplied by the manufacturer.

## 2.3. Other hazards

**Other hazards:** May cause sensitisation by skin contact.

**PBT:** This substance is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

#### Hazardous ingredients:

##### N-BUTYL ACETATE

EINECS	CAS	CHIP Classification	CLP Classification	Percent
204-658-1	123-86-4	-: R10; -: R66; -: R67	Flam. Liq. 3: H226; STOT SE 3: H336; -: EUH066	10-30%

##### XYLENE

215-535-7	1330-20-7	-: R10; Xn: R20/21; Xi: R38	Flam. Liq. 3: H226; Acute Tox. 4: H332; Acute Tox. 4: H312; Skin Irrit. 2: H315	10-30%
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##### 2-METHOXY-1-METHYLETHYL ACETATE

203-603-9	108-65-6	-: R10	Flam. Liq. 3: H226	10-30%
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##### HEXAMETHYLENE DIISOCYANATE OLIGOMERS

500-060-2	28182-81-2	Xn: R20; Xi: R37; Sens.: R43	-	30-50%
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## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Wash immediately with plenty of soap and water. Remove all contaminated clothes and footwear immediately unless stuck to skin.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

**Ingestion:** Do not induce vomiting. Wash out mouth with water. Consult a doctor.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a doctor.

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

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be soreness and redness of the mouth and throat.

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

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

[cont...]

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

**Immediate / special treatment:** Not applicable.

## Section 5: Fire-fighting measures

### 5.1. Extinguishing media

**Extinguishing media:** Carbon dioxide. Dry chemical powder. Alcohol or polymer foam. Do not use water.

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

**Exposure hazards:** Flammable. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

### 5.3. Advice for fire-fighters

**Advice for fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

## Section 6: Accidental release measures

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

**Personal precautions:** Refer to section 8 of SDS for personal protection details.

### 6.2. Environmental precautions

**Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.

### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Absorb into dry earth or sand. Wash the spillage site with large amounts of water.

### 6.4. Reference to other sections

**Reference to other sections:** Refer to section 8 of SDS.

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Ensure there is sufficient ventilation of the area. Smoking is forbidden.

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

**Storage conditions:** Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed.

**Suitable packaging:** Must only be kept in original packaging.

### 7.3. Specific end use(s)

**Specific end use(s):** No data available.

## Section 8: Exposure controls/personal protection

### 8.1. Control parameters

[cont...]

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## Workplace exposure limits:

## Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	0.02 mg/m3	0.07 mg/m3	-	-

## Hazardous ingredients:

### N-BUTYL ACETATE

## Workplace exposure limits:

## Respirable dust

State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	724 mg/m3	966 mg/m3	-	-

### XYLENE

UK	220 mg/m3	441 mg/m3	-	-
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### 2-METHOXY-1-METHYLETHYL ACETATE

UK	274 mg/m3	548 mg/m3	-	-
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### HEXAMETHYLENE DIISOCYANATE OLIGOMERS

UK	0.02 - 0.07 mg/m3	-	-	-
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## 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.

**Respiratory protection:** Compressed airline breathing apparatus (EN139).

**Hand protection:** Nitrile gloves.

**Eye protection:** Face-shield.

**Skin protection:** Protective clothing with elasticated cuffs and closed neck.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Liquid

**Colour:** Colourless

**Odour:** Aromatic

**Evaporation rate:** Moderate

**Solubility in water:** Insoluble

**Also soluble in:** Most organic solvents.

**Viscosity:** Non-viscous

**Kinematic viscosity:** 100 cps

**Flammability limits %:** lower: 1.0

**upper:** 6.6

**Flash point°C:** 24

**Autoflammability°C:** 490

**Relative density:** 1.0

**VOC g/l:** 585 (4.92 lbs/gal)

[cont...]

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## 9.2. Other information

**Other information:** Not applicable.

## Section 10: Stability and reactivity

### 10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

### 10.2. Chemical stability

**Chemical stability:** Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

**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

**Conditions to avoid:** Heat. Sources of ignition. Flames.

### 10.5. Incompatible materials

**Materials to avoid:** Acids. Bases. Oxidising agents. Amines.

### 10.6. Hazardous decomposition products

**Haz. decomp. products:** In combustion emits toxic fumes of carbon dioxide / carbon monoxide.

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant effects for mixture:

Effect	Route	Basis
Acute toxicity (harmful)	INH DRM	Hazardous: calculated
Irritation	DRM	Hazardous: calculated
Sensitisation	DRM	Hazardous: calculated

### Symptoms / routes of exposure

**Skin contact:** There may be irritation and redness at the site of contact.

**Eye contact:** There may be irritation and redness.

**Ingestion:** There may be soreness and redness of the mouth and throat.

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

**Delayed / immediate effects:** Immediate effects can be expected after short-term exposure.

## Section 12: Ecological information

### 12.1. Toxicity

**Ecotoxicity values:** Not applicable.

[cont...]

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## 12.2. Persistence and degradability

**Persistence and degradability:** Not biodegradable.

## 12.3. Bioaccumulative potential

**Bioaccumulative potential:** No data available.

## 12.4. Mobility in soil

**Mobility:** Insoluble in water.

## 12.5. Results of PBT and vPvB assessment

**PBT identification:** This substance is not identified as a PBT substance.

## 12.6. Other adverse effects

**Other adverse effects:** Very toxic to aquatic organisms.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

**Disposal operations:** Incineration on land.

**Recovery operations:** Use principally as a fuel or other means to generate energy.

**Disposal of packaging:** Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

## Section 14: Transport information

### 14.1. UN number

**UN number:** UN1263

### 14.2. UN proper shipping name

**Shipping name:** PAINT RELATED MATERIAL

### 14.3. Transport hazard class(es)

**Transport class:** 3

### 14.4. Packing group

**Packing group:** III

### 14.5. Environmental hazards

**Environmentally hazardous:** No

**Marine pollutant:** No

### 14.6. Special precautions for user

**Special precautions:** No special precautions.

**Tunnel code:** D/E

**Transport category:** 3

[cont...]

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## Section 15: Regulatory information

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

### 15.2. Chemical Safety Assessment

**Chemical safety assessment:** A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.

## Section 16: Other information

### Other information

**Other information:** This safety data sheet is prepared in accordance with Commission Regulation (EU) No 453/2010.

FOR PROFESSIONAL USE ONLY. Read full instructions before use.

IMPORTANT: This product contains hazardous materials and therefore appropriate personal protective equipment should always be used.

Please refer to the label and consult the material safety data sheet for full handling instructions and personal protection information. These are available via your local stockist or via the U-POL website at [WWW.U-POL.COM](http://WWW.U-POL.COM).

U-POL disclaim any liability where the user does not wear the recommended personal protective equipment.

**Phrases used in s.2 and 3:** EUH066: Repeated exposure may cause skin dryness or cracking.

H226: Flammable liquid and vapour.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H332: Harmful if inhaled.

H336: May cause drowsiness or dizziness.

R10: Flammable.

R20/21: Harmful by inhalation and in contact with skin.

R20: Harmful by inhalation.

R37: Irritating to respiratory system.

R38: Irritating to skin.

R43: May cause sensitisation by skin contact.

R66: Repeated exposure may cause skin dryness or cracking.

R67: Vapours may cause drowsiness and dizziness.

**Legal disclaimer:** The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. Addition of reducers, hardeners and other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. Since conditions of use are outside our control, this company shall not be held liable for any damage resulting from handling or from contact with the above product.