

# U-POL™

## SAFETY DATA SHEET

S20 SLOW HARDENER

Page 1

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Revision No: 3

### 1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND OF THE COMPANY / UNDERTAKING

**Product name:** S20 SLOW HARDENER

**Product code:** S2033

**Use of substance / preparation:** HARDENER CONTAINS ISOCYANATE, XYLENE, MIXTURE OF SOLVENTS FOR PROFESSIONAL USE ONLY

**Company name:** U-Pol Products  
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### 2. HAZARDS IDENTIFICATION

**Main hazards:** Flammable. Harmful by inhalation. May cause sensitisation by inhalation and skin contact. Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

**Hazardous ingredients:** N-BUTYL ACETATE 1-10%  
EINECS: 204-658-1 CAS: 123-86-4  
[-] R10; [-] R66; [-] R67

- LOW BOILING POINT NAPHTHA - UNSPECIFIED - SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. 30-50%  
EINECS: 265-199-0 CAS: 64742-95-6  
[-] R10; [Xi] R37; [N] R51/53; [Xn] R65

[cont...]

**SAFETY DATA SHEET**

S20 SLOW HARDENER

- 2-METHOXY-1-METHYLETHYL ACETATE 10-30%  
EINECS: 203-603-9 CAS: 108-65-6  
[-] R10; [Xi] R36
- HEXAMETHYLENE DIISOCYANATE OLIGOMERS 30-50%  
EINECS: 500-060-2 CAS: 28182-81-2  
[Sens.] R43

**4. FIRST AID MEASURES (SYMPTOMS)**

- 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.

**4. FIRST AID MEASURES (ACTION)**

- 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.

**5. FIRE-FIGHTING MEASURES**

- Extinguishing media:** Carbon dioxide. Dry chemical powder. Alcohol or polymer foam. Do not use water.
- Exposure hazards:** Flammable. In combustion emits toxic fumes of carbon dioxide / carbon monoxide.
- Protection of fire-fighters:** Wear self-contained breathing apparatus. Wear protective clothing to prevent contact with skin and eyes.

**6. ACCIDENTAL RELEASE MEASURES**

- Personal precautions:** Refer to section 8 of SDS for personal protection details. Remove all incompatible materials as outlined in section 10 of SDS.
- Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.
- Clean-up procedures:** Spillages should be contained and collected using non-combustible absorbent materials e.g. sand, earth, vermiculate, etc., and placed in a suitable container. The contaminated area should be cleaned up immediately with a suitable decontaminant. A typical non-flammable decontaminant comprises of: Sodium Carbonate (5%) in Water (95%). Add the solution to any residues and allow to stand for several days in a non-sealed container until no further reaction occurs. Avoid all incompatible materials in clean-up procedure - see section 10 of SDS.

**7. HANDLING AND STORAGE**

- Handling requirements:** Ensure there is sufficient ventilation of the area. Smoking is forbidden. Persons with a history of asthma, allergies or chronic or recurrent respiratory diseases should only be employed in

**SAFETY DATA SHEET**

S20 SLOW HARDENER

processes in which this product is used under appropriate medical supervision. Based on the properties of the isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitisation of the respiratory system, resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.

**Storage conditions:** Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Store separately from oxidising agents, strongly alkaline and strongly acidic materials, amines, alcohols and water.

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

**8. EXPOSURE CONTROLS / PERSONAL PROTECTION****Workplace exposure limits**

**WEL (8 hr exposure limit):** 0.02 mg/m<sup>3</sup>

**WEL (15 min exposure limit):** 0.07 mg/m<sup>3</sup>

**Hazardous ingredients:** N-BUTYL ACETATE

WEL (8 hr exposure limit): 724 mg/m<sup>3</sup> WEL (15 min exposure limit): 966 mg/m<sup>3</sup>

- 2-METHOXY-1-METHYLETHYL ACETATE

WEL (8 hr exposure limit): 274 mg/m<sup>3</sup> WEL (15 min exposure limit): 822 mg/m<sup>3</sup>

- HEXAMETHYLENE DIISOCYANATE OLIGOMERS

WEL (8 hr exposure limit): 0.02 - 0.07 mg/m<sup>3</sup>

**Engineering measures:** Provide adequate ventilation. Where reasonably practicable, local exhaust ventilation and good general ventilation should be installed. Suitable respiratory protective equipment should also be worn. Ensure lighting and electrical equipment are not a source of ignition.

**Respiratory protection:** Compressed airline breathing apparatus (EN139). Air-fed respiratory protective equipment should be worn when this product is sprayed if the exposure of the sprayer or other people nearby cannot be controlled to below the OEL and engineering controls and methods cannot reasonably be improved. Under dry, cool conditions it is possible for the isocyanate to remain unreacted in the paint film for up to 30 hours after application. If dry flatting is unavoidable, air-fed respiratory protective equipment should be used.

**Hand protection:** Nitrile gloves.

**Eye protection:** Face-shield.

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

**9. PHYSICAL AND CHEMICAL PROPERTIES**

**State:** Liquid

**Colour:** Colourless

**Odour:** Aromatic

**Evaporation rate:** Moderate

**SAFETY DATA SHEET**

S20 SLOW HARDENER

**Solubility in water:** Insoluble**Also soluble in:** Most organic solvents.**Viscosity:** Non-viscous**Viscosity value:** 100 cps**Flammability limits %: lower:** 1.7**upper:** 7.6**Flash point°C:** 27**Autoflammability°C:** 370**Relative density:** 1.0**VOC g/l:** 618**10. STABILITY AND REACTIVITY****Stability:** Stable under normal conditions.**Conditions to avoid:** Heat. Sources of ignition. Flames.**Materials to avoid:** Keep away from oxidising agents and strongly alkaline and strongly acidic materials.

Uncontrolled exothermic reactions occur with amines and alcohols. The product reacts slowly with water resulting in the evolution of carbon dioxide. In closed containers, pressure build up could result in distortion and in extreme cases bursting of the container.

**Haz. decomp. products:** In a fire, hazardous decomposition products such as smoke, carbon monoxide, carbon dioxide, oxides of nitrogen, hydrogen cyanide, amines and alcohols may be produced.**11. TOXICOLOGICAL INFORMATION****Hazardous ingredients:** N-BUTYL ACETATE

ORL MUS LD50 6 gm/kg

ORL RAT LD50 10768 mg/kg

- LOW BOILING POINT NAPHTHA - UNSPECIFIED - SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM.

ORL RAT LD50 8400 mg/kg

- 2-METHOXY-1-METHYLETHYL ACETATE

IPR MUS LD50 750 mg/kg

ORL RAT LD50 8532 mg/kg

**Chronic toxicity:** May cause sensitisation by skin contact. Based on the properties of the isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitisation of the respiratory system, resulting in asthmatic symptoms, wheezing and a tightness of the chest. Sensitised persons may subsequently show asthmatic symptoms when exposed to airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.**Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms.

**SAFETY DATA SHEET**

S20 SLOW HARDENER

**12. ECOLOGICAL INFORMATION****Mobility:** Insoluble in water.**Persistence and degradability:** Not biodegradable.**Bioaccumulative potential:** No data available.**Other adverse effects:** Very toxic to aquatic organisms.**13. DISPOSAL CONSIDERATIONS****Disposal operations:** D10 Incineration on land.

R1 Solvent reclamation/regeneration.

**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.**14. TRANSPORT INFORMATION****ADR / RID****UN no:** 1263**ADR Class:** 3**Packing group:** III**Classification code:** F1**Shipping name:** PAINT RELATED MATERIAL**Labelling:** 3**Hazard ID no:** 30**IMDG / IMO****UN no:** 1263**Class:** 3**Packing group:** III**EmS:** F-E,S-E**Marine pollutant:** .**Labelling:** 3**IATA / ICAO****UN no:** 1263**Class:** 3**Packing group:** III**Packing instructions:** 309(P&CA); 310(CAO)**Labelling:** 3**15. REGULATORY INFORMATION****Hazard symbols:** Dangerous for the environment.  
Harmful.

**SAFETY DATA SHEET**

S20 SLOW HARDENER



**Risk phrases:** R10: Flammable.  
R20: Harmful by inhalation.  
R42/43: May cause sensitisation by inhalation and skin contact.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety phrases:** S23: Do not breathe vapour/spray  
S24: Avoid contact with skin.  
S37: Wear suitable gloves.  
S42: During fumigation / spraying wear suitable respiratory equipment.

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

**Water hazard class:** 1

**Note:** The regulatory information given above only indicates the principal regulations specifically applicable to the product described in the safety data sheet. The user's attention is drawn to the possible existence of additional provisions which complete these regulations. Refer to all applicable national, international and local regulations or provisions.

**16. OTHER INFORMATION**

**Other information:** This safety data sheet is prepared in accordance with EC Directive 2001/58/EC. Breathe Freely, INDG 172; Respiratory Sensitisers and COSHH - a guide for employers. INGD95; Isocyanates - health hazards and precautionary methods

Based on the properties of the isocyanate content of this product, respiratory exposure may cause acute irritation and/or sensitisation of the respiratory system, resulting in asthmatic symptoms, wheezing and a tightness of the chest.

Sensitised persons may subsequently show asthmatic symptoms when exposed to airborne concentrations of isocyanates well below the occupational exposure limit. Repeated exposure may lead to permanent respiratory disability.

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.

## SAFETY DATA SHEET

S20 SLOW HARDENER

**Risk phrases used in s.3:** R10: Flammable.  
R66: Repeated exposure may cause skin dryness or cracking.  
R67: Vapours may cause drowsiness and dizziness.  
R37: Irritating to respiratory system.  
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R65: Harmful: may cause lung damage if swallowed.  
R36: Irritating to eyes.  
R43: May cause sensitisation by skin contact.

**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.