

U-POL™

SAFETY DATA SHEET

UP2391, UP2392, UP2393 2K SYSTEM 20 VOC COMPLIANT STANDARD HARDENER

Page 1

Issued: 01/12/2008

Revision No: 6

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

Product name: UP2391, UP2392, UP2393 2K SYSTEM 20 VOC COMPLIANT STANDARD HARDENER

Product code: S2039

Use of substance / preparation: HARDENER CONTAINING ISOCYANATE, MIXTURE OF SOLVENTS

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

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

Email: technical@u-pol.com

2. HAZARDS IDENTIFICATION

Main hazards: Highly flammable. Irritating to eyes, respiratory system and skin. May cause sensitisation by skin contact. Harmful to aquatic organisms. Repeated exposure may cause skin dryness or cracking. Vapours may cause drowsiness and dizziness.

Other hazards: May cause sensitisation by skin contact.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients: METHYL ACETATE 30-50%

EINECS: 201-185-2 CAS: 79-20-9

[F] R11; [Xi] R36; [-] R66; [-] R67

- 4-CHLORO BENZOTRIFLUORIDE 10-30%

EINECS: 202-681-1 CAS: 98-56-6

[-] R10; [Xi] R36/37/38; [-] R52

- LOW BOILING POINT NAPHTHA - UNSPECIFIED - SOLVENT NAPHTHA (PETROLEUM), LIGHT AROM. 1-10%

EINECS: 265-199-0 CAS: 64742-95-6

[-] R10; [Xi] R37; [N] R51/53; [Xn] R65

[cont...]

SAFETY DATA SHEET

UP2391, UP2392, UP2393 2K SYSTEM 20 VOC COMPLIANT STANDARD HARDENER

- HEXAMETHYLENE DIISOCYANATE OLIGOMERS 30-50%
EINECS: 500-060-2 CAS: 28182-81-2
[Sens.] R43
- N-BUTYL ACETATE 1-10%
EINECS: 204-658-1 CAS: 123-86-4
[-] R10; [-] R66; [-] R67

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.
- Environmental precautions:** Do not discharge into drains or rivers. Contain the spillage using bunding.
- Clean-up procedures:** Absorb into dry earth or sand. Wash the spillage site with large amounts of water. 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.
- 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Workplace exposure limits****WEL (8 hr TWA):** 0.02 mg/m³

WEL (15 min STEL): 0.07 mg/m³

Hazardous ingredients: METHYL ACETATE

WEL (8 hr TWA): 616 mg/m³ WEL (15 min STEL): 770 mg/m³

- 4-CHLORO BENZOTRIFLUORIDE

WEL (8 hr TWA): 25 ppm

- HEXAMETHYLENE DIISOCYANATE OLIGOMERS

WEL (8 hr TWA): 0.02 - 0.07 mg/m³

- N-BUTYL ACETATE

WEL (8 hr TWA): 724 mg/m³ WEL (15 min STEL): 966 mg/m³

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.

9. 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

Viscosity value: 100 cps

Boiling point/range°C: 40

Flammability limits %: lower: 3.1

upper: 16.0

Flash point°C: -9

Autoflammability°C: 490

Relative density: 1.0

VOC g/l: 113 less water and exempt compounds, 46 Total

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions.

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

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

11. TOXICOLOGICAL INFORMATION**Hazardous ingredients:** METHYL ACETATE

ORL RAT LD50 >5 gm/kg

SCU RAT LDLO 8 gm/kg

- 4-CHLORO BENZOTRIFLUORIDE

IHL MUS LC50 20 mg/l

IHL RAT LC50 33 mg/l/4hrs

ORL MUS LD50 11500 mg/kg

ORL RAT LD50 13000 mg/kg

SKN RBT LD50 >2000 mg/kg

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

ORL RAT LD50 8400 mg/kg

- N-BUTYL ACETATE

ORL MUS LD50 6 gm/kg

ORL RAT LD50 10768 mg/kg

Chronic toxicity: May cause sensitisation by skin contact.**Routes of exposure:** Refer to section 4 of SDS for routes of exposure and corresponding symptoms.**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:** II**Classification code:** F1**Shipping name:** PAINT RELATED MATERIAL**Labelling:** 3**Hazard ID no:** 33

SAFETY DATA SHEET

UP2391, UP2392, UP2393 2K SYSTEM 20 VOC COMPLIANT STANDARD HARDENER



IMDG / IMO

UN no: 1263 **Class:** 3
Packing group: II **EmS:** F-E,S-E
Marine pollutant: .
Labelling: 3

IATA / ICAO

UN no: 1263 **Class:** 3
Packing group: II
Packing instructions: 305(P&CA); 307(CAO)
Labelling: 3

15. REGULATORY INFORMATION

Hazard symbols: Highly flammable.
 Irritant.



Risk phrases: R11: Highly flammable.
 R36/37/38: Irritating to eyes, respiratory system and skin.
 R43: May cause sensitisation by skin contact.
 R52: Harmful to aquatic organisms.
 R66: Repeated exposure may cause skin dryness or cracking.
 R67: Vapours may cause drowsiness and dizziness.

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.
 METHYL ACETATE; 4-CHLORO BENZOTRIFLUORIDE; HEXAMETHYLENE
 DIISOCYANATE OLIGOMERS

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.

US VOC CONVERSION FACTOR 250 g/l = 2.1 lb/gal

16. OTHER INFORMATION

Other information: This safety data sheet is prepared in accordance with Regulation (EC) No 1907/2006.
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.
U-POL disclaim any liability where the user does not wear the recommended personal protective equipment.

Risk phrases used in s.3: R11: Highly flammable.
R36: Irritating to eyes.
R66: Repeated exposure may cause skin dryness or cracking.
R67: Vapours may cause drowsiness and dizziness.
R10: Flammable.
R36/37/38: Irritating to eyes, respiratory system and skin.
R52: Harmful to aquatic organisms.
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.
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.