

# U-POL™

## SAFETY DATA SHEET REFACE HARDENER

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

**Product name:** REFACE HARDENER

**Product code:** HAR/SF

**Use of substance / preparation:** HARDENER CONTAINING CYCLOHEXANONE PEROXIDE IN A MIXTURE OF SOLVENTS

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

**Main hazards:** May cause fire. Highly flammable. Harmful if swallowed. Causes burns.

**Other hazards:** May cause fire. Harmful if swallowed.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

- Hazardous ingredients:** CYCLOHEXANONE, PEROXIDE 10-30%  
EINECS: 235-527-7 CAS: 12262-58-7  
[E] R2; [Xn] R22; [C] R34
- ETHYL ACETATE 30-50%  
EINECS: 205-500-4 CAS: 141-78-6  
[F] R11; [Xi] R36; [-] R66; [-] R67
  - 4-HYDROXY-4-METHYLPENTAN-2-ONE 10-30%  
EINECS: 204-626-7 CAS: 123-42-2  
[Xi] R36

[cont...]

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

- Skin contact:** Irritation or pain may occur at the site of contact. Blistering may occur.
- Eye contact:** Corneal burns may occur. May cause permanent damage.
- Ingestion:** Corrosive burns may appear around the lips. Nausea and stomach pain may occur.
- Inhalation:** There may be a feeling of tightness in the chest with shortness of breath.

**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. Transfer to hospital for specialist examination.
- Ingestion:** Do not induce vomiting. Wash out mouth with water. Transfer to hospital as soon as possible.
- Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious, check for breathing and apply artificial respiration if necessary. Transfer to hospital as soon as possible.

**5. FIRE-FIGHTING MEASURES**

- Extinguishing media:** Carbon dioxide. Dry chemical powder. Alcohol or polymer foam. Do not use water.
- Exposure hazards:** Highly flammable. In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Vapour may travel considerable distance to source of ignition and flash back.
- 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. Alert the neighbourhood to the presence of fumes or gas.
- Clean-up procedures:** Absorb into dry earth or sand. Wash the spillage site with large amounts of water. Do not use equipment in clean-up procedure which may produce sparks.

**7. HANDLING AND STORAGE**

- Handling requirements:** Ensure there is sufficient ventilation of the area. Smoking is forbidden. Earth any equipment used in handling. Use non-sparking tools.
- Storage conditions:** Store in cool, well ventilated area. Keep away from sources of ignition. Keep container tightly closed. Keep away from direct sunlight.
- Suitable packaging:** Must only be kept in original packaging.

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

- WEL (8 hr exposure limit):** 200 ppm
- WEL (15 min exposure limit):** 400 ppm

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**Hazardous ingredients:** ETHYL ACETATE

WEL (8 hr exposure limit): 200 ppm WEL (15 min exposure limit): 400 ppm

- 4-HYDROXY-4-METHYLPENTAN-2-ONE

WEL (8 hr exposure limit): 241 mg/m<sup>3</sup> WEL (15 min exposure limit): 362 mg/m<sup>3</sup>**Engineering measures:** Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition.**Respiratory protection:** Gas/vapour filter, type A: organic vapours (EN141).**Hand protection:** Neoprene gloves.**Eye protection:** Face-shield. Ensure eye bath is to hand.**Skin protection:** Protective clothing with elasticated cuffs and closed neck.**9. PHYSICAL AND CHEMICAL PROPERTIES****State:** Liquid**Colour:** Colourless**Odour:** Barely perceptible odour**Evaporation rate:** Moderate**Oxidising:** Non-oxidising (by EC criteria)**Solubility in water:** Slightly soluble**Also soluble in:** Most organic solvents.**Viscosity:** Non-viscous**Viscosity value:** 3 mPa.s**Melting point/range°C:** - 10**Flash point°C:** 6**Vapour pressure:** 4 kPa**VOC g/l:** 683**10. STABILITY AND REACTIVITY****Stability:** Stable under normal conditions.**Conditions to avoid:** Heat. Sources of ignition. Flames. Direct sunlight. Shock.**Materials to avoid:** Acids. Alkalis. Copper. Iron. Metals. Reducing agents.**Haz. decomp. products:** In combustion emits toxic fumes.**11. TOXICOLOGICAL INFORMATION****Hazardous ingredients:** ETHYL ACETATE

ORL MUS LD50 4100 mg/kg

ORL RAT LD50 5620 mg/kg

SCU RAT LDLO 5 gm/kg

- 4-HYDROXY-4-METHYLPENTAN-2-ONE

IVN RAT LDLO 3024 mg/kg

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ORL MUS LD50 3950 mg/kg

ORL RAT LD50 2520 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. Vapour is heavier than air.**Persistence and degradability:** Rapidly biodegradable.**Bioaccumulative potential:** No data available.**Other adverse effects:** Very toxic to aquatic organisms.**13. DISPOSAL CONSIDERATIONS****Disposal operations:** D10 Incineration on land.**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:** 3105**ADR Class:** 5.2**Classification code:** P1**Shipping name:** ORGANIC PEROXIDE, TYPE D, LIQUID**Labelling:** 5.2**IMDG / IMO****UN no:** 3105**Class:** 5.2**EmS:** F-J,S-R**Marine pollutant:** NO**Labelling:** 5.2**IATA / ICAO****UN no:** 3105**Class:** 5.2**Packing instructions:** 500(P&CA); 502(CAO)**Labelling:** 5.2**15. REGULATORY INFORMATION****Hazard symbols:** Highly flammable.

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Oxidising.

Corrosive.



**Risk phrases:** R7: May cause fire.  
 R11: Highly flammable.  
 R22: Harmful if swallowed.  
 R34: Causes burns.

**Safety phrases:** S3/9/49: Keep only in the original container in a cool, well-ventilated place.  
 S16: Keep away from sources of ignition - No smoking.  
 S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
 S62: If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

**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 EC Directive 2001/58/EC.  
 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.

**Risk phrases used in s.3:** R2: Risk of explosion by shock, friction, fire or other sources of ignition.  
 R22: Harmful if swallowed.  
 R34: Causes burns.  
 R11: Highly flammable.  
 R36: Irritating to eyes.

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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.