



RAPTOR HARDENER (RLH-AU)

Safety Data Sheet

according to the Model Work Health and Safety Regulations

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Version:

DRIVING SURFACE PERFECTION

SECTION 1: Identification : Product identifier and chemical identity

Product name : RAPTOR HARDENER (RLH-AU)
Other means of identification : RLH/1, RLH/250, RLH/5

Company identification : U-POL AUSTRALIA PTY LIMITED
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SECTION 2: Hazards identification

2.1. Classification of the hazardous chemical

Classification (GHS-AU)

Flam. Liq. 3 H226
Acute Tox. 4 (Inhalation:vapour) H332
Skin Irrit. 2 H315
Skin Sens. 1 H317
STOT SE 3 H335
STOT RE 2 H373

2.2. Label elements

Hazard pictograms (GHS-AU) :



Flame

Exclamation mark

Health hazard

Signal word (GHS-AU) : Warning
Contains : ethylbenzene; xylene; hexamethylene-di-isocyanate; Solvent naphtha (petroleum), light arom.; HEXAMETHYLENE DIISOCYANATE OLIGOMERS
Hazard statements (GHS-AU) : H226 - Flammable liquid and vapour
H315 - Causes skin irritation
H317 - May cause an allergic skin reaction
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H373 - May cause damage to organs (hearing organs) through prolonged or repeated exposure (if inhaled)
Precautionary statements (GHS-AU) : P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking
P260 - Do not breathe spray, vapours
P264 - Wash hands thoroughly after handling
P280 - Wear face protection, protective clothing, protective gloves
P303+P361+P353 - IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower
P312 - Call a POISON CENTER or doctor/physician if you feel unwell
Additional hazard statements (GHS-AU) : AUH066 - Repeated exposure may cause skin dryness or cracking

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

Name	CAS No	Compound type	%
xylene	1330-20-7		43 - 63
HEXAMETHYLENE DIISOCYANATE OLIGOMERS	28182-81-2		23-43
ethylbenzene	100-41-4		5 - 23
n-butyl acetate	123-86-4		< 5

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Name	CAS No	Compound type	%
Solvent naphtha (petroleum), light arom.,			< 5
hexamethylene-di-isocyanate	822-06-0		< 5

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).
- First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.
- First-aid measures after skin contact : Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician. Wash with plenty of soap and water. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention. Get medical advice/attention. If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse immediately with plenty of water. Obtain medical attention if pain, blinking or redness persists.
- First-aid measures after ingestion : Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention.

4.2. Symptoms caused by exposure

- Symptoms/injuries : Causes damage to organs (hearing organs) (Inhalation).
- Symptoms/injuries after inhalation : May cause an allergic skin reaction. May cause respiratory irritation.
- Symptoms/injuries after skin contact : Repeated exposure to this material can result in absorption through skin causing significant health hazard. Harmful in contact with skin. Causes skin irritation.

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

No additional information available

SECTION 5: Fire-fighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Foam. Dry powder. Carbon dioxide. Water spray. Sand.
- Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour.
- Explosion hazard : May form flammable/explosive vapour-air mixture.
- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

5.3. Special protective equipment and precautions for fire-fighters

- Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire fighting water from entering the environment.
- Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
- Hazchemcode : 3YE

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Remove ignition sources. Use special care to avoid static electric charges. No open flames. No smoking.

6.1.1. For non-emergency personnel

- Protective equipment : Safety glasses. Protective clothing. Gloves.
- Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

- Protective equipment : Equip cleanup crew with proper protection.
- Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Contain released substance, pump into suitable containers. Collect spillage.
- Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect spillage. Store away from other materials.

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SECTION 7: Handling and storage, including how the chemical may be safely used

7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapour. No open flames. No smoking. Take precautionary measures against static discharge. Use only non-sparking tools. Avoid breathing spray, vapours. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Wash hands thoroughly after handling. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed. Ground/bond container and receiving equipment. Use explosion-proof electrical, Lighting equipment equipment.
- Storage conditions : Keep only in the original container in a cool, well ventilated place away from : Ignition sources, Heat sources, Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed.
- Incompatible products : Strong bases. Strong acids.
- Incompatible materials : Sources of ignition. Direct sunlight. Heat sources.
- Storage temperature : < 25 °C
- Storage area : Store in a well-ventilated place.
- Special rules on packaging : Keep only in original container.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters - exposure standards

ethylbenzene (100-41-4)		
Australia	Local name	Ethyl benzene
Australia	TWA (mg/m ³)	434 mg/m ³
Australia	TWA (ppm)	100 ppm
Australia	STEL (mg/m ³)	543 mg/m ³
Australia	STEL (ppm)	125 ppm

hexamethylene-di-isocyanate (822-06-0)		
Australia	Local name	Hexamethylene diisocyanate
Australia	TWA (mg/m ³)	0.02 mg/m ³
Australia	STEL (mg/m ³)	0.07 mg/m ³

n-butyl acetate (123-86-4)		
Australia	Local name	n-Butyl acetate
Australia	TWA (mg/m ³)	713 mg/m ³
Australia	TWA (ppm)	150 ppm
Australia	STEL (mg/m ³)	950 mg/m ³
Australia	STEL (ppm)	200 ppm

Exposure limit values for the other components

8.2. Monitoring

No additional information available

8.3. Appropriate engineering controls

No additional information available

8.4. Personal protective equipment

Personal protective equipment : Avoid all unnecessary exposure. Gas mask. Gloves. Protective clothing. Safety glasses.

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Materials for protective clothing	: Impermeable clothing
Hand protection	: Wear protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear appropriate mask. Air-fed respiratory protective equipment should be worn when this product is sprayed



Other information : Do not eat, drink or smoke during use.

9.1. SECTION 9: Physical and chemical properties

Physical state	: Liquid
Appearance	: Liquid.
Colour	: Colourless.
Odour	: aromatic.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point / Freezing point	: No data available
Boiling point	: No data available
Flash point	: 27 °C
Auto-ignition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative density	: No data available
Density	: Density : 0.96 - 0.98
Solubility	: insoluble in water. soluble in most organic solvents.
Log Pow	: No data available
Viscosity	: No data available
Explosive properties	: No data available
Explosive limits	: No data available
Minimum ignition energy	: No data available
VOC content - Regulatory	: No data available

10.1. SECTION 10: Stability and reactivity

Chemical stability	: Flammable liquid and vapour. May form flammable/explosive vapour-air mixture.
Possibility of hazardous reactions	: Not established.
Conditions to avoid	: Direct sunlight. Extremely high or low temperatures. Open flame. Overheating. Heat. Sparks.
Incompatible materials	: Strong acids. Strong bases.
Hazardous decomposition products	: fume. Carbon monoxide. Carbon dioxide. May release flammable gases.

11.1. SECTION 11: Toxicological information

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Inhalation:vapour: Harmful if inhaled.

ATE AU (vapours)	13.543 mg/l/4h
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Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitisation	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified

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Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: May cause respiratory irritation.
STOT-repeated exposure	: May cause damage to organs (hearing organs) through prolonged or repeated exposure (if inhaled).
Aspiration hazard	: Not classified

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Density	0.96 - 0.98
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Potential adverse human health effects and symptoms : Harmful in contact with skin. Based on available data, the classification criteria are not met

SECTION 12: Ecological information

According to the National Code of Practice for the Preparation of Material Safety Data Sheets , Environmental classification information is not mandatory . Information relevant for GHS classification is available on request

12.1. Ecotoxicity

Acute aquatic toxicity	: Not classified
Chronic aquatic toxicity	: Not classified
Other information	: Avoid release to the environment.

12.2. Persistence and degradability

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Persistence and degradability	Not established.
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Solvent naphtha (petroleum), light arom.,

Persistence and degradability	May cause long-term adverse effects in the environment.
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12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established.
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Solvent naphtha (petroleum), light arom.,

Bioaccumulative potential	Not established.
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Ozone	: Not classified
Other adverse effects	: No additional information available

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Fluorinated greenhouse gases	False
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ethylbenzene (100-41-4)

Fluorinated greenhouse gases	False
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xylene (1330-20-7)

Fluorinated greenhouse gases	False
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hexamethylene-di-isocyanate (822-06-0)

Fluorinated greenhouse gases	False
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n-butyl acetate (123-86-4)

Fluorinated greenhouse gases	False
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Solvent naphtha (petroleum), light arom.,

Fluorinated greenhouse gases	False
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HEXAMETHYLENE DIISOCYANATE OLIGOMERS (28182-81-2)

Fluorinated greenhouse gases	False
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SECTION 13: Disposal considerations

Regional legislation (waste)	:	Disposal must be done according to official regulations.
Waste treatment methods	:	Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	:	Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to Remove waste in accordance with local and/or national regulations.
Additional information	:	Handle empty containers with care because residual vapours are flammable.
Ecology - waste materials	:	Avoid release to the environment.

SECTION 14: Transport information

14.1. UN number

UN-No. (ADG)	:	1263
UN-No. (IMDG)	:	1263
UN-No. (IATA)	:	1263

14.2. Proper Shipping Name - Addition

Proper Shipping Name (ADG)	:	PAINT RELATED MATERIAL
Proper Shipping Name (IMDG)	:	PAINT RELATED MATERIAL
Proper Shipping Name (IATA)	:	Paint

14.3. Transport hazard class(es)

ADG

Transport hazard class(es) (ADG)	:	3
Danger labels (ADG)	:	3



IMDG

Transport hazard class(es) (IMDG)	:	3
Danger labels (IMDG)	:	3



IATA

Transport hazard class(es) (IATA)	:	3
Hazard labels (IATA)	:	3



14.4. Packing group

Packing group (ADG)	:	III
Packing group (IMDG)	:	III
Packing group (IATA)	:	III

14.5. Environmental hazards

Marine pollutant	:	No
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14.6. Special precautions for user

Specific storage requirement	:	No data available
Shock sensitivity	:	No data available

14.7. Additional information

Other information	:	No supplementary information available
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Transport by road and rail

UN-No. (ADG)	: 1263
Special provision (ADG)	: 163, 223
Limited quantities (ADG)	: 5I
Packing instructions (ADG)	: P001, IBC03, LP01
Special packing provisions (ADG)	: PP1
Portable tank and bulk container instructions (ADG)	: T2
Portable tank and bulk container special provisions (ADG)	: TP1, TP29

Transport by sea

UN-No. (IMDG)	: 1263
Special provisions (IMDG)	: 163, 223, 955
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T2
Tank special provisions (IMDG)	: TP1, TP29
EmS-No. (Fire)	: F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS
EmS-No. (Spillage)	: S-E - SPILLAGE SCHEDULE Echo - FLAMMABLE LIQUIDS, FLOATING ON WATER
Stowage category (IMDG)	: A
Properties and observations (IMDG)	: Miscibility with water depends upon the composition.

Air transport

UN-No. (IATA)	: 1263
PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y344
PCA limited quantity max net quantity (IATA)	: 10L
PCA packing instructions (IATA)	: 355
PCA max net quantity (IATA)	: 60L
CAO packing instructions (IATA)	: 366
CAO max net quantity (IATA)	: 220L
Special provisions (IATA)	: A3, A72, A192
ERG code (IATA)	: 3L

14.8. Hazchem or Emergency Action Code

Hazchemcode	: 3YE
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SECTION 15: Regulatory information

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

Listed on the AICS (Australian Inventory of Chemical Substances)	: Listed on the AICS (Australian Inventory of Chemical Substances)
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15.2. International agreements

No additional information available

SECTION 16: Any other relevant information

Other information : None.

Classification:

Flam. Liq. 3	H226
Acute Tox. 4 (Inhalation:vapour)	H332
Skin Irrit. 2	H315
Skin Sens. 1	H317
STOT SE 3	H335
STOT RE 2	H373

Full text of H-statements:

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Acute Tox. 3 (Inhalation)	Acute toxicity (inhal.), Category 3
Acute Tox. 4 (Dermal)	Acute toxicity (dermal), Category 4
Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Resp. Sens. 1	Sensitisation — Respiratory, Category 1
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, Category 1
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Narcosis
H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H312	Harmful in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H331	Toxic if inhaled
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects

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