



RAPTOR ETCH PRIMER (RAAEP-R-US)

Safety Data Sheet RAAEP-R-US

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Date of issue: 07/07/2017

Revision date: 11/29/2017

Version: 1.1

DRIVING SURFACE PERFECTION

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture
Product name : RAPTOR ETCH PRIMER (RAAEP-R-US)
Product group : Aerosol
Other means of identification : UP5023, component of UP5026 and UP5039

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

1.3. Details of the supplier of the safety data sheet

Supplier

U-POL US Inc
108 Commerce Way, Stockertown
PA 18083 - USA
T 1-800-340-7824 - F 1-800-787-5150
technical.department@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC - 1-800-424-9300 (UK +44 (0) 1933 230310 (07:30 - 17:00hrs UK time))

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Aerosol 1 H222
Skin Irrit. 2 H315
Eye Dam. 1 H318
Carc. 2 H351
STOT SE 3 H336
Aquatic Chronic 2 H411

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :



GHS02

GHS05

GHS07

GHS08

GHS09

Signal word (GHS-US) :

Danger

Hazard statements (GHS-US) :

H222 - Extremely flammable aerosol
H315 - Causes skin irritation
H318 - Causes serious eye damage
H336 - May cause drowsiness or dizziness
H351 - Suspected of causing cancer
H411 - Toxic to aquatic life with long lasting effects

Precautionary statements (GHS-US) :

P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, open flames, sparks. - No smoking.
P211 - Do not spray on an open flame or other ignition source.
P251 - Pressurized container: Do not pierce or burn, even after use.
P261 - Avoid breathing fume, spray, vapors.
P280 - Wear eye protection, protective clothing, protective gloves.
P302+P352 - If on skin: Wash with plenty of water
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P308+P313 - If exposed or concerned: Get medical advice/attention.
P410+P412 - Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

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P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS-US classification
methyl acetate	(CAS-No.) 79-20-9	5 - 23	Flam. Liq. 2, H225 Eye Irrit. 2A, H319 STOT SE 3, H336
butan-1-ol	(CAS-No.) 71-36-3	5 - 23	Flam. Liq. 3, H226 Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336
TITANIUM DIOXIDE	(CAS-No.) 13463-67-7	5 - 23	Carc. 2, H351
cyclohexane	(CAS-No.) 110-82-7	< 5	Flam. Liq. 2, H225 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
2-methylpropan-1-ol, iso-butanol	(CAS-No.) 78-83-1	< 5	Flam. Liq. 3, H226 Skin Irrit. 2, H315 Eye Dam. 1, H318 STOT SE 3, H335 STOT SE 3, H336
ethylbenzene	(CAS-No.) 100-41-4	< 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general	: IF exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation	: Remove person to fresh air and keep comfortable for breathing.
First-aid measures after skin contact	: Wash skin with plenty of water. Take off contaminated clothing. If skin irritation occurs: Get medical advice/attention.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.
First-aid measures after ingestion	: Call a poison center/doctor/physician if you feel unwell.

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

Symptoms/effects	: May cause drowsiness or dizziness.
Symptoms/effects after skin contact	: Irritation.
Symptoms/effects after eye contact	: Serious damage to eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Extremely flammable aerosol.
Explosion hazard	: Pressurized container: may burst if heated.

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Reactivity : Extremely flammable aerosol. Pressurized container: may burst if heated.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : Safety glasses. Protective clothing. Gloves.
Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Avoid breathing spray, vapors, fume. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

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 : Mechanically recover the product. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not spray on an open flame or other ignition source. Pressurized container: Do not pierce or burn, even after use. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing spray, vapors, fume. Avoid contact with skin and eyes.
Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Protect from sunlight. Do not expose to temperatures exceeding 50 °C/ 122 °F. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.
Storage temperature : < 25 °C
Special rules on packaging : Keep only in original container.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

RAPTOR ETCH PRIMER (RAAEP-R-US)		
ACGIH	Not applicable	
OSHA	Not applicable	
ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm
2-methylpropan-1-ol, iso-butanol (78-83-1)		
ACGIH	ACGIH TWA (ppm)	50 ppm

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2-methylpropan-1-ol, iso-butanol (78-83-1)		
ACGIH	Remark (ACGIH)	Skin & eye irr
OSHA	OSHA PEL (TWA) (mg/m ³)	300 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

butan-1-ol (71-36-3)		
ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	OSHA PEL (TWA) (mg/m ³)	300 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

TITANIUM DIOXIDE (13463-67-7)		
ACGIH	ACGIH TWA (mg/m ³)	1 mg/m ³
ACGIH	Remark (ACGIH)	LRT irr; A3
OSHA	OSHA PEL (TWA) (mg/m ³)	15 mg/m ³

cyclohexane (110-82-7)		
ACGIH	ACGIH TWA (ppm)	100 ppm
ACGIH	Remark (ACGIH)	CNS impair
OSHA	OSHA PEL (TWA) (mg/m ³)	1050 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	300 ppm

methyl acetate (79-20-9)		
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
ACGIH	Remark (ACGIH)	eye & URT irr
OSHA	OSHA PEL (TWA) (mg/m ³)	610 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Personal protective equipment : Gloves. Protective clothing. Safety glasses.



Materials for protective clothing : Impermeable clothing.
Hand protection : Protective gloves.
Eye protection : Safety glasses.
Skin and body protection : Wear suitable protective clothing.
Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid
Appearance : Aerosol.
Color : Light gray
Odor : Odourless.
Odor threshold : No data available
pH : No data available
Relative evaporation rate (butyl acetate=1) : No data available

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Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: -41 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapor pressure	: No data available
Relative vapor density at 20 °C	: No data available
Relative density	: No data available
Solubility	: insoluble in water. soluble in most organic solvents.
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Pressurized container: may burst if heated.
Oxidizing properties	: No data available
Explosion limits	: No data available

9.2. Other information

VOC content	: 721 g/l
MIR	: 1.55
Gas group	: Press. Gas (Ref. Liq.)

SECTION 10: Stability and reactivity

10.1. Reactivity

Extremely flammable aerosol. Pressurized container: may burst if heated.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

ethylbenzene (100-41-4)	
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

butan-1-ol (71-36-3)	
ATE US (oral)	500 mg/kg body weight

Skin corrosion/irritation	: Causes skin irritation.
Serious eye damage/irritation	: Causes serious eye damage.
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified

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Carcinogenicity : Suspected of causing cancer.

ethylbenzene (100-41-4)

IARC group	2B - Possibly carcinogenic to humans
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TITANIUM DIOXIDE (13463-67-7)

IARC group	2B - Possibly carcinogenic to humans
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Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after skin contact : Irritation.

Symptoms/effects after eye contact : Serious damage to eyes.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Toxic to aquatic life with long lasting effects.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the ozone layer : No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

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.

SECTION 14: Transport information

In accordance with DOT

Transport document description : UN1950 Aerosols (flammable, (each not exceeding 1 L capacity)), 2.1

UN-No.(DOT) : UN1950

Proper Shipping Name (DOT) : Aerosols
flammable, (each not exceeding 1 L capacity)

Class (DOT) : 2.1 - Class 2.1 - Flammable gas 49 CFR 173.115

Hazard labels (DOT) : 2.1 - Flammable gas



DOT Special Provisions (49 CFR 172.102) : N82 - See 173.306 of this subchapter for classification criteria for flammable aerosols.

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DOT Packaging Exceptions (49 CFR 173.xxx)	: 306
DOT Packaging Non Bulk (49 CFR 173.xxx)	: None
DOT Packaging Bulk (49 CFR 173.xxx)	: None
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 75 kg
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 150 kg
DOT Vessel Stowage Location	: A - The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel.
DOT Vessel Stowage Other	: 25 - Shade from radiant heat, 87 - Stow "separated from" Class 1 (explosives) except Division 14, 126 - Segregation same as for Class 9, miscellaneous hazardous materials

Additional information

Other information : No supplementary information available.

ADR

Transport document description	: UN 1950 AEROSOLS, 2.1, (D)
Class (ADR)	: 2 - Gases
Classification code (ADR)	: 5F
Hazard labels (ADR)	: 2.1 - Flammable gases



Tunnel restriction code (ADR)	: D
LQ	: 1I
Excepted quantities (ADR)	: E0

Transport by sea

UN-No. (IMDG)	: 1950
Proper Shipping Name (IMDG)	: AEROSOLS
Class (IMDG)	: 2 - Gases

Air transport

UN-No. (IATA)	: 1950
Proper Shipping Name (IATA)	: Aerosols, flammable
Class (IATA)	: 2

SECTION 15: Regulatory information

15.1. US Federal regulations

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

ethylbenzene	CAS-No. 100-41-4	< 5%
toluene	CAS-No. 108-88-3	< 5%
xylene	CAS-No. 1330-20-7	< 5%
phenol, carboic acid, monohydroxybenzene, phenylalcohol	CAS-No. 108-95-2	< 5%
butan-1-ol, n-butanol	CAS-No. 71-36-3	5 - 23%
cyclohexane	CAS-No. 110-82-7	< 5%

ethylbenzene (100-41-4)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	1000 lb
SARA Section 313 - Emission Reporting	0.1 %

2-methylpropan-1-ol, iso-butanol (78-83-1)

Listed on the United States TSCA (Toxic Substances Control Act) inventory
Not subject to reporting requirements of the United States SARA Section 313

CERCLA RQ	5000 lb
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butan-1-ol, n-butanol (71-36-3)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %
TITANIUM DIOXIDE (13463-67-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
cyclohexane (110-82-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	1000 lb
methyl acetate (79-20-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

15.2. International regulations

CANADA

ethylbenzene (100-41-4)	
Listed on the Canadian DSL (Domestic Substances List)	
butan-1-ol, n-butanol (71-36-3)	
Listed on the Canadian DSL (Domestic Substances List)	
TITANIUM DIOXIDE (13463-67-7)	
Listed on the Canadian DSL (Domestic Substances List)	
methyl acetate (79-20-9)	
Listed on the Canadian DSL (Domestic Substances List)	

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Aerosol 1 H222:H229
Skin Irrit. 2 H315
Eye Dam. 1 H318
STOT SE 3 H336
Aquatic Chronic 2 H411
Full text of H statements : see section 16

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

15.2.2. National regulations

ethylbenzene (100-41-4)	
Listed on IARC (International Agency for Research on Cancer) Listed on EPA Hazardous Air Pollutant (HAPS)	
TITANIUM DIOXIDE (13463-67-7)	
Listed on IARC (International Agency for Research on Cancer)	

15.3. US State regulations

RAPTOR ETCH PRIMER (RAAEP-R-US)(I)	
U.S. - California - Proposition 65 - Carcinogens List	Yes
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No

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ethylbenzene (100-41-4)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significant risk level (NSRL)
Yes	No	No	No	54 µg/day

SECTION 16: Other information

Revision date : 02/10/2017

Full text of H-phrases:

H225	Highly flammable liquid and vapour
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H332	Harmful if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects

NFPA health hazard

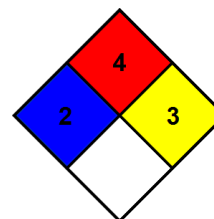
: 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

NFPA fire hazard

: 4 - Materials that rapidly or completely vaporize at atmospheric pressure and normal ambient temperature or that are readily dispersed in air and burn readily.

NFPA reactivity

: 3 - Materials that in themselves are capable of detonation or explosive decomposition or explosive reaction but that require a strong initiating source or must be heated under confinement before initiation.



SDS US UPOL

The information contained within this Safety Data Sheet (SDS) is believed to be correct as of the date issued however it is subject to change from time to time. It does not purport to be all inclusive or exhaustive and shall only be used as a guide. U-POL makes no warranties, expressed or implied, including but not limited to, any implied warranty of fitness for a given purpose or usage. It is the Buyers responsibility to ensure the suitability of the products for their own use and to check the information is up to date. U-POL cannot be held responsible for the suitability of use for any of its products, considering the wide range of factors such as application, substrates and handling methods. Since these conditions of use are outside of our control, the company shall not be held liable for any damage resulting from handling or from contact with the product detailed. Moreover, addition of reducers, hardeners or other additives over and above U-POL's recommendations for use, may substantially alter the composition and hazards of the product. U-POL data sheets are available via the U-POL website at WWW.U-POL.COM.