RAPTOR HARDENER 2.6 VOC

Safety Data Sheet RLHV-US-SDS

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

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SECTION 1: Identification

1.1. Identification

Product form : Mixture

Trade name : RAPTOR HARDENER 2.6 VOC

UP Number UP4824, UP4874

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Coatings and paints, thinners, paint removers

Recommended use : Hardener

Restrictions on use : Consumer uses: Private households (= general public = consumers)

1.3. Supplier

U-POL US Inc
108 Commerce Way
Easton, PA 18040 - United States
T 1-800-340-7824 - F 1-800-787-5150
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

Emergency number : CHEMTREC - 1-800-424-9300

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2	Highly flammable liquid and vapor
Serious eye damage/eye irritation Category 2	Causes serious eye irritation
Skin sensitization, Category 1	May cause an allergic skin reaction
Carcinogenicity Category 2	Suspected of causing cancer
Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation	May cause respiratory irritation
Specific target organ toxicity — Single exposure, Category 3, Narcosis	May cause drowsiness or dizziness
Specific target organ toxicity (repeated exposure) Category 2	May cause damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation)

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :

Signal word (GHS US) : Danger

Hazard statements (GHS US) : Highly flammable liquid and vapor
May cause an allergic skin reaction
Causes serious eye irritation
May cause respiratory irritation
May cause drowsiness or dizziness
Suspected of causing cancer
May cause damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation)

Precautionary statements (GHS US) : Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Keep container tightly closed.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe vapors, spray, fume.
Wash hands thoroughly after handling.

Use only outdoors or in a well-ventilated area.
Contaminated work clothing must not be allowed out of the workplace.
Wear eye protection, protective gloves, protective clothing.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
If exposed or concerned: Get medical advice/attention.
If skin irritation or rash occurs: Get medical advice/attention.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
In case of fire: Use dry sand, extinguishing powder, foam to extinguish.
Store in a well-ventilated place. Keep cool.
Store locked up.
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 which do not result in classification

2.4. Unknown acute toxicity (GHS US)

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	GHS US classification
hexamethylene diisocyanate oligomers	(CAS-No.) 28182-81-2	< 43	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
methyl acetate	(CAS-No.) 79-20-9	23 – 43	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
4-chlorobenzotrifluoride	(CAS-No.) 98-56-6	5 – 23	Flam. Liq. 3, H226 Skin Sens. 1, H317 Carc. 2, H351 Aquatic Chronic 2, H411
Xylene	(CAS-No.) 1330-20-7	5 – 23	Flam. Liq. 3, H226 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335 STOT RE 2, H373 Asp. Tox. 1, H304
n-butyl acetate	(CAS-No.) 123-86-4	< 5	Flam. Liq. 3, H226 STOT SE 3, H336
solvent naphtha (petroleum), light aromatic	(CAS-No.) 64742-95-6	< 5	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Ethylbenzene	(CAS-No.) 100-41-4	< 5	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation), H332 Acute Tox. 4 (Inhalation:vapour), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304

Full text of hazard classes and H-statements : 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. Call a poison center/doctor/physician if you feel unwell.

First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing. If skin irritation or rash 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. If eye irritation persists: Get medical advice/attention.

First-aid measures after ingestion : Call a poison center/doctor/physician if you feel unwell.

4.2. Most important symptoms and effects (acute and delayed)

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

Fire hazard : Highly flammable liquid and vapor.

Reactivity : Highly flammable liquid and vapor.

5.3. Special protective equipment and precautions for fire-fighters

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. Do not breathe vapors, fume, spray. 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 product, pump into suitable containers. Collect spillage.

Methods for cleaning up : Take up liquid spill into absorbent material. 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. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not breathe vapors, fume, spray. Use only outdoors or in a well-ventilated area. Avoid contact with skin and eyes.

Hygiene measures : Contaminated work clothing should not be allowed out of the workplace. 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

Technical measures	:	Ground/bond container and receiving equipment.
Storage conditions	:	Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.
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

methyl acetate (79-20-9)		
ACGIH	Local name	Methyl acetate
ACGIH	ACGIH OEL TWA [ppm]	200 ppm
ACGIH	ACGIH OEL STEL [ppm]	250 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina)
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	610 mg/m³
OSHA	OSHA PEL (TWA) [2]	200 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

4-chlorobenzotrifluoride (98-56-6)
Not applicable

n-butyl acetate (123-86-4)		
ACGIH	Local name	n-Butyl acetate
ACGIH	ACGIH OEL TWA [ppm]	50 ppm
ACGIH	ACGIH OEL STEL [ppm]	150 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: Eye & URT irr
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	710 mg/m³
OSHA	OSHA PEL (TWA) [2]	150 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

solvent naphtha (petroleum), light aromatic (64742-95-6)
Not applicable

hexamethylene diisocyanate oligomers (28182-81-2)
Not applicable

Xylene (1330-20-7)		
ACGIH	Local name	Xylene, mixed isomers (Dimethylbenzene)
ACGIH	ACGIH OEL TWA [ppm]	100 ppm
ACGIH	ACGIH OEL STEL [ppm]	150 ppm
ACGIH	Remark (ACGIH)	TLV® Basis: URT & eye irr; CNS impair. Notations: A4 (Not classifiable as a Human Carcinogen); BEI
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	435 mg/m³
OSHA	OSHA PEL (TWA) [2]	100 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

Ethylbenzene (100-41-4)		
ACGIH	Local name	Ethylbenzene
ACGIH	ACGIH OEL TWA [ppm]	20 ppm

Ethylbenzene (100-41-4)		
ACGIH	Remark (ACGIH)	TLV® Basis: URT irr; kidney dam (nephropathy); cochlear impair. Notations: A3 (Confirmed Animal Carcinogen with Unknown Relevance to Humans); BEI
ACGIH	Regulatory reference	ACGIH 2021
OSHA	OSHA PEL (TWA) [1]	435 mg/m³
OSHA	OSHA PEL (TWA) [2]	100 ppm
OSHA	Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

Appropriate engineering controls : Ensure good ventilation of the work station.

Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Materials for protective clothing:

Impermeable clothing

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Air-fed respiratory protective equipment should be worn when this product is sprayed

Personal protective equipment symbol(s):

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Appearance	:	Liquid.
Color	:	Colorless
Odor	:	aromatic
Odor threshold	:	No data available
pH	:	No data available
Melting point	:	No data available
Freezing point	:	No data available
Boiling point	:	> 35 °C
Flash point	:	< 0 °C
Relative evaporation rate (butyl acetate=1)	:	No data available
Flammability (solid, gas)	:	Not applicable.
Vapor pressure	:	No data available
Relative vapor density at 20 °C	:	No data available
Relative density	:	No data available
Density	:	1.05 (1.04 – 1.06) g/cm³
Solubility	:	insoluble in water. soluble in most organic solvents.

Partition coefficient n-octanol/water (Log Pow)	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
No data availableViscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available
Explosion limits	:	No data available
Explosive properties	:	No data available
Oxidizing properties	:	No data available

9.2. Other information

As Packaged Regulatory VOC	:	245 g/l (2.0 lb/gal)
As Packaged Actual VOC	:	118 g/l (1.0 lb/gal)
Water Content		0 wt%
Exempt Compounds by volume	:	51.7 vol %
Exempt Compounds by weight	:	50.0 wt%
Volatiles	:	61.3 wt%
% EPA HAPS	:	7.1 wt%
Percent Solids	:	38.7 wt%
Percent Solids	:	36.86 vol %

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

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 (oral)	:	Not classified
Acute toxicity (dermal)	:	Not classified
Acute toxicity (inhalation)	:	Not classified

methyl acetate (79-20-9)	
LD50 oral rat	6482 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rat	> 2000 mg/kg body weight Animal: rat, Guideline: EU Method B.3 (Acute Toxicity (Dermal)), Guideline: OECD Guideline 402 (Acute Dermal Toxicity)
LC50 Inhalation - Rat	49 mg/l
ATE US (oral)	6482 mg/kg body weight
ATE US (vapors)	49 mg/l/4h
ATE US (dust, mist)	49 mg/l/4h

4-chlorobenzotrifluoride (98-56-6)	
LD50 dermal rabbit	> 3300 mg/kg body weight Animal: rabbit

4-chlorobenzotrifluoride (98-56-6)	
LC50 Inhalation - Rat	> 32.03 mg/l air Animal: rat, Guideline: EU Method B.2 (Acute Toxicity (Inhalation)), Guideline: OECD Guideline 403 (Acute Inhalation Toxicity)

n-butyl acetate (123-86-4)	
LD50 oral rat	10760 – 12789 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral)
LD50 dermal rabbit	14112 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal)
LC50 Inhalation - Rat [ppm]	390 ppm/4h
ATE US (oral)	10760 mg/kg body weight
ATE US (dermal)	14112 mg/kg body weight
ATE US (gases)	390 ppmV/4h

solvent naphtha (petroleum), light aromatic (64742-95-6)	
LD50 oral rat	> 5000 mg/kg body weight Animal: rat, Guideline: OECD Guideline 401 (Acute Oral Toxicity)
LD50 dermal rabbit	> 3160 mg/kg (OECD Test Guideline 402)

hexamethylene diisocyanate oligomers (28182-81-2)	
LD50 oral rat	> 2500 mg/kg (OECD Test Guideline 423, rat, female)
LD50 dermal rat	> 2000 mg/kg (OECD Test Guideline 402, rat, male/female)
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	0.39 mg/l/4h

Xylene (1330-20-7)	
LD50 oral rat	3523 mg/kg body weight (Equivalent or similar to EU Method B.1: Acute Toxicity (Oral), Rat, Male, Experimental value, Oral, 14 day(s))
LD50 dermal rat	12126 mg/kg (Non-GLP, read-across from supporting substance, single dermal dose under occlusion followed by observation for 14 days)
LD50 dermal rabbit	12126 mg/kg body weight Animal: rabbit, Animal sex: male
LC50 Inhalation - Rat [ppm]	6700 ppm/4h (EU Method B.2 (Acute Toxicity (Inhalation)), 4h, rat, male)
ATE US (oral)	3523 mg/kg body weight
ATE US (dermal)	1100 mg/kg body weight
ATE US (gases)	6700 ppmV/4h
ATE US (vapors)	11 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	15432 mg/kg body weight (24 h, Rabbit, Male, Experimental value, Dermal)
LC50 Inhalation - Rat	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
ATE US (oral)	3500 mg/kg body weight
ATE US (dermal)	15432 mg/kg body weight
ATE US (gases)	4500 ppmV/4h
ATE US (vapors)	17.8 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

Skin corrosion/irritation : Not classified

Serious eye damage/irritation : Causes serious eye irritation.

Respiratory or skin sensitization : May cause an allergic skin reaction.

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

4-chlorobenzotrifluoride (98-56-6)	
IARC group	2B - Possibly carcinogenic to humans

Xylene (1330-20-7)	
IARC group	3 - Not classifiable

Ethylbenzene (100-41-4)	
IARC group	2B - Possibly carcinogenic to humans

Reproductive toxicity : Not classified

STOT-single exposure : May cause respiratory irritation. May cause drowsiness or dizziness.

methyl acetate (79-20-9)	
STOT-single exposure	May cause drowsiness or dizziness.

n-butyl acetate (123-86-4)	
STOT-single exposure	May cause drowsiness or dizziness.

solvent naphtha (petroleum), light aromatic (64742-95-6)	
STOT-single exposure	May cause drowsiness or dizziness. May cause respiratory irritation.

hexamethylene diisocyanate oligomers (28182-81-2)	
STOT-single exposure	May cause respiratory irritation.

Xylene (1330-20-7)	
STOT-single exposure	May cause respiratory irritation.

STOT-repeated exposure : May cause damage to organs (hearing organs) through prolonged or repeated exposure (Inhalation).

methyl acetate (79-20-9)	
LOAEC (inhalation,rat,vapor,90 days)	2000 mg/l
NOAEC (inhalation,rat,vapor,90 days)	1057 mg/m³

4-chlorobenzotrifluoride (98-56-6)	
LOAEL (oral,rat,90 days)	150 mg/kg body weight Animal: rat

Xylene (1330-20-7)	
LOAEL (oral,rat,90 days)	150 mg/kg body weight Animal: rat, Animal sex: male, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents), Guideline: EPA OPP 82-1 (90-Day Oral Toxicity)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Ethylbenzene (100-41-4)	
NOAEL (oral,rat,90 days)	75 mg/kg body weight Animal: rat, Guideline: OECD Guideline 408 (Repeated Dose 90-Day Oral Toxicity in Rodents)
STOT-repeated exposure	May cause damage to organs through prolonged or repeated exposure.

Aspiration hazard : Not classified

Viscosity, kinematic : No data available

Symptoms/effects : May cause drowsiness or dizziness.

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : May cause an allergic skin reaction.

Symptoms/effects after eye contact : Eye irritation.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

methyl acetate (79-20-9)	
LC50 - Fish [1]	250 – 350 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)
EC50 - Crustacea [1]	1026.7 mg/l Test organisms (species): Daphnia magna

4-chlorobenzotrifluoride (98-56-6)	
LC50 - Fish [1]	3 mg/l Test organisms (species): Danio rerio (previous name: Brachydanio rerio)

n-butyl acetate (123-86-4)	
LC50 - Fish [1]	18 mg/l Test organisms (species): Pimephales promelas
EC50 - Crustacea [1]	44 mg/l Test organisms (species): Daphnia sp.
LC50 - Fish [2]	62 mg/l (Leuciscus idus, static system)
NOEC (chronic)	23 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	23 mg/l

Xylene (1330-20-7)	
LC50 - Fish [1]	2.6 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri)
EC50 - Crustacea [1]	> 3.4 mg/l Test organisms (species): Ceriodaphnia dubia
ErC50 algae	4.36 mg/l (OECD 201: Alga, Growth Inhibition Test, 73 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, GLP)
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'

Ethylbenzene (100-41-4)	
LC50 - Fish [1]	5.1 mg/l Test organisms (species): Menidia menidia
EC50 - Crustacea [1]	1.8 – 2.4 mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

12.2. Persistence and degradability

methyl acetate (79-20-9)	
Persistence and degradability	Readily biodegradable in water.

4-chlorobenzotrifluoride (98-56-6)	
Persistence and degradability	Biodegradability in water: no data available.

n-butyl acetate (123-86-4)	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.21 g O_2/g substance
BOD (% of ThOD)	0.46

solvent naphtha (petroleum), light aromatic (64742-95-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.

Xylene (1330-20-7)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.

Ethylbenzene (100-41-4)	
Persistence and degradability	Biodegradable in the soil. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.44 g O_2/g substance
Chemical oxygen demand (COD)	2.1 g O_2/g substance
ThOD	3.17 g O_2/g substance

12.3. Bioaccumulative potential

methyl acetate (79-20-9)	
BCF - Fish [1]	< 1 (Pisces, Literature study)
Partition coefficient n-octanol/water (Log Pow)	0.18 (Experimental value, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

4-chlorobenzotrifluoride (98-56-6)	
Partition coefficient n-octanol/water (Log Pow)	3.6
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

n-butyl acetate (123-86-4)	
BCF - Fish [1]	15.3 (Calculated value)
Partition coefficient n-octanol/water (Log Pow)	2.3 (Test data, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

solvent naphtha (petroleum), light aromatic (64742-95-6)	
Partition coefficient n-octanol/water (Log Pow)	2.1 – 6
Bioaccumulative potential	Not established.

Xylene (1330-20-7)	
BCF - Fish [1]	7.2 – 25.9 (56 day(s), Oncorhynchus mykiss, Flow-through system, Fresh water, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

Ethylbenzene (100-41-4)	
BCF - Fish [1]	1 (6 week(s), Oncorhynchus kisutch, Flow-through system, Salt water, Experimental value)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

methyl acetate (79-20-9)	
Surface tension	24 mN/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	0.18 (log Koc, OECD 121: Estimation of the Adsorption Coefficient (Koc) on Soil and on Sewage Sludge using High Performance Liquid Chromatography (HPLC), Experimental value, GLP)
Ecology - soil	Highly mobile in soil.

n-butyl acetate (123-86-4)	
Surface tension	0.0163 N/m (20 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Ecology - soil	Low potential for adsorption in soil.

Xylene (1330-20-7)	
Surface tension	28.01 – 29.76 mN/m (25 °C)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.

Ethylbenzene (100-41-4)	
Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Organic Carbon Normalized Adsorption Coefficient (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.

12.5. Other adverse effects

SECTION 13: Disposal considerations

13.1. Disposal 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.

Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description (DOT) : UN1263 Paint related material (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) with not more than 20 per cent nitrocellulose by mass if the nitrogen content of the nitrocellulose is not more than 12.6 per cent by mass), 3, II

UN-No.(DOT) : UN1263

Proper Shipping Name (DOT) : Paint related material

including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) with not more than 20 per cent nitrocellulose by mass if the nitrogen content of the nitrocellulose is not more than 12.6 per cent by mass

Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT)	:	3 - Flammable liquid

DOT Packaging Non Bulk (49 CFR 173.xxx)	:	173
DOT Packaging Bulk (49 CFR 173.xxx)	:	242
DOT Special Provisions (49 CFR 172.102)	:	149 - When transported as a limited quantity or a consumer commodity, the maximum net capacity specified in 173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons). 367 - For the purposes of documentation and package marking: a. The proper shipping name “Paint related material” may be used for consignments of packages containing “Paint” and “Paint related material” in the same package; b. The proper shipping name “Paint related material, corrosive, flammable” may be used for consignments of packages containing “Paint, corrosive, flammable” and “Paint related material, corrosive, flammable” in the same package; c. The proper shipping name “Paint related material, flammable, corrosive” may be used for consignments of packages containing “Paint, flammable, corrosive” and “Paint related material, flammable, corrosive” in the same package; and d. The proper shipping name “Printing ink related material” may be used for consignments of packages containing “Printing ink” and “Printing ink related material” in the same package. 383 - Packages containing toy plastic or paper caps for toy pistols described as “UN0349, Articles, explosive, n.o.s. (Toy caps), 1.4S” or “NA0337, Toy caps, 1.4S” are not subject to the subpart E (labeling) requirements of this part when offered for transportation by motor vehicle, rail freight, cargo vessel, and cargo aircraft and, notwithstanding the packing method assigned in §173.62 of this subchapter, in conformance with the following conditions: B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks. B131 - When transported by highway, rail, or cargo vessel, waste Paint and Paint related material (UN1263; PG II and PG III), when in plastic or metal inner packagings of not more than 26.5 L (7 gallons), are excepted from the marking requirements in §172.301(a) and (c) and the labeling requirements in §172.400(a), when further packed in the following specification and non-specification bulk outer packagings and under the following conditions: a. Primary receptacles must conform to the general packaging requirements of subpart B of part 173 of this subchapter and may not leak. If they do leak, they must be overpacked in packagings conforming to the specification requirements of part 178 of this subchapter or in salvage packagings conforming to the requirements in §173.12 of this subchapter. b. Primary receptacles must be further packed in non-specification bulk outer packagings such as cubic yard boxes, plastic rigid-wall bulk containers, dump trailers, and roll-off containers. Bulk outer packagings must be liquid tight through design or by the use of lining materials. c. Primary receptacles may also be further packed in specification bulk outer packagings. Authorized specification bulk outer packagings are UN11G fiberboard intermediate bulk containers (IBC) and UN13H4 woven plastic, coated and with liner flexible intermediate bulk containers (FIBCs) meeting the Packing Group II performance level and lined with a plastic liner of at least 6 mil thickness. d. All inner packagings placed inside bulk outer packagings must be blocked and braced to prevent movement during transportation that could cause the container to open or fall over. Specification IBCs and FIBCs are to be secured to a pallet. IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = 97 / 1 + a (tr - tf) Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling. TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F). TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx)	:	150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	:	5 L

DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	:	60 L
DOT Vessel Stowage Location	:	B - (i) The material may be stowed ''on deck'' or ''under deck'' on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) ''On deck only'' on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
Emergency Response Guide (ERG) Number	:	128
Other information	:	No supplementary information available.

Transportation of Dangerous Goods

Transport document description (TDG)	:	UN1263 PAINT RELATED MATERIAL (including paint, lacquer, enamel, stain, shellac, varnish, polish, liquid filler and liquid lacquer base) with not more than 20 per cent nitrocellulose by mass if the nitrogen content of the nitrocellulose is not more than 12.6 per cent by mass), 3, II
UN-No. (TDG)	:	UN1263
Proper Shipping Name (TDG)	:	PAINT RELATED MATERIAL
TDG Primary Hazard Classes	:	3 - Class 3 - Flammable Liquids
Packing group (TDG)	:	II - Medium Danger
TDG Special Provisions	:	59 - Substances that are listed by name in Schedule 1 must not be transported under this shipping name. Substances transported under this shipping name may contain not more than 20% nitrocellulose if the nitrocellulose contains not more than 12.6% nitrogen (by dry mass),142 - The following shipping names may be used to meet the requirements of Part 3 (Documentation) and Part 4 (Dangerous Goods Safety Marks) when these dangerous goods are offered for transport in the same means of containment: (a) “PAINT RELATED MATERIAL” may be used for a means of containment containing both paint and paint related material; (b) “PAINT RELATED MATERIAL, CORROSIVE, FLAMMABLE” may be used for a means of containment containing both paint, corrosive, flammable, and paint related material, corrosive, flammable; (c) “PAINT RELATED MATERIAL, FLAMMABLE, CORROSIVE” may be used for a means of containment containing both paint, flammable, corrosive, and paint related material, flammable, corrosive; and (d) “PRINTING INK RELATED MATERIAL” may be used for a means of containment containing both printing ink and printing ink related material.
Explosive Limit and Limited Quantity Index	:	5 L
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index	:	5 L

Transport by sea

Transport document description (IMDG)	:	UN 1263 PAINT RELATED MATERIAL, 3, II
UN-No. (IMDG)	:	1263
Proper Shipping Name (IMDG)	:	PAINT RELATED MATERIAL
Class (IMDG)	:	3 - Flammable liquids
Packing group (IMDG)	:	II - substances presenting medium danger
Limited quantities (IMDG)	:	5 L

Air transport

Transport document description (IATA)	:	UN 1263 Paint, 3, II
UN-No. (IATA)	:	1263
Proper Shipping Name (IATA)	:	Paint
Class (IATA)	:	3 - Flammable Liquids
Packing group (IATA)	:	II - Medium Danger

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.

Xylene	CAS-No. 1330-20-7	5 – 23%
Ethylbenzene	CAS-No. 100-41-4	< 5%

methyl acetate (79-20-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

4-chlorobenzotrifluoride (98-56-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

n-butyl acetate (123-86-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
CERCLA RQ	5000 lb

solvent naphtha (petroleum), light aromatic (64742-95-6)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	

hexamethylene diisocyanate oligomers (28182-81-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
EPA TSCA Regulatory Flag	XU - XU - indicates a substance exempt from reporting under the Chemical Data Reporting Rule, (40 CFR 711).

Xylene (1330-20-7)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on EPA Hazardous Air Pollutant (HAPS)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	100 lb

Ethylbenzene (100-41-4)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on EPA Hazardous Air Pollutant (HAPS)	
Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	1000 lb

15.2. International regulations

CANADA

methyl acetate (79-20-9)
Listed on the Canadian DSL (Domestic Substances List)

4-chlorobenzotrifluoride (98-56-6)
Listed on the Canadian DSL (Domestic Substances List)

n-butyl acetate (123-86-4)
Listed on the Canadian DSL (Domestic Substances List)

solvent naphtha (petroleum), light aromatic (64742-95-6)
Listed on the Canadian DSL (Domestic Substances List)

hexamethylene diisocyanate oligomers (28182-81-2)
Listed on the Canadian DSL (Domestic Substances List)

Xylene (1330-20-7)
Listed on the Canadian DSL (Domestic Substances List)

Ethylbenzene (100-41-4)
Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

4-chlorobenzotrifluoride (98-56-6)
Listed on IARC (International Agency for Research on Cancer)

Ethylbenzene (100-41-4)
Listed on IARC (International Agency for Research on Cancer)

15.3. US State regulations

⚠ WARNING: This product can expose you to 4-chlorobenzotrifluoride, which is known to the State of California to cause cancer. For more information go to www.P65Warnings.ca.gov.

Component	Carcinogenicity	Developmental toxicity	Reproductive toxicity male	Reproductive toxicity female	No significant risk level (NSRL)	Maximum allowable dose level (MADL)
4-chlorobenzotrifluoride(98-56-6)	X					
Ethylbenzene(100-41-4)	X				54 µg/day (inhalation); 41 µg/day (oral)	

Component	State or local regulations
Xylene(1330-20-7)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
Ethylbenzene(100-41-4)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
n-butyl acetate(123-86-4)	U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities; U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List
methyl acetate(79-20-9)	U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations; U.S. - New Jersey - Right to Know Hazardous Substance List; U.S. – New York City – Right to Know Hazardous Substances List; U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

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

Revision date : 04/01/2020

Indication of changes:

Section	Changed item	Change	Comments
	Revision date	Modified	
	Supersedes	Modified	
9	Density	Modified	

SDS US GHS (GHS HazCom2012)

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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.