



RAPTOR HARDENER 2.6 VOC

Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

DRIVING SURFACE PERFECTION

Issue date: 08-07-2019

Revision date: 08-13-2019

Supersedes: 08-09-2019

Version: 2.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : RAPTOR HARDENER 2.6 VOC
Product code : RLHV/250, RLHV/1, RLHV/5, RLHV/25
UP Number : UP4821, UP4824, UP0827, UP4874
Product group : 2K Hardener
Other means of identification : Component of: UP0820V, UP0821V, UP4808

1.2. Recommended use and restrictions on use

Recommended use : Hardener

1.3. Supplier

U-POL CANADA LIMITED
P.O. Box P.O. BOX 48600
BC V7X 1T2 VANCOUVER - CANADA
T 1-800-424-9300
technicalsupport@u-pol.com - www.u-pol.com

1.4. Emergency telephone number

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

SECTION 2: Hazard identification

2.1. Classification of the substance or mixture

Classification (GHS CA)

Flammable liquids Category 2	H225
Serious eye damage/eye irritation Category 2	H319
Skin sensitization, Category 1	H317
Carcinogenicity Category 2	H351
Specific target organ toxicity (single exposure) Category 3	H335
Specific target organ toxicity (single exposure) Category 3	H336
Specific target organ toxicity (repeated exposure) Category 2	H373

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS CA labeling

Hazard pictograms (GHS CA) :



Signal word (GHS CA) : Danger

Hazard statements (GHS CA) : H225 - Highly flammable liquid and vapor
H317 - May cause an allergic skin reaction
H319 - Causes serious eye irritation
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

Precautionary statements (GHS CA) : P201 - Obtain special instructions before use.
P202 - Do not handle until all safety precautions have been read and understood.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P233 - Keep container tightly closed.
P242 - Use only non-sparking tools.
P243 - Take action to prevent static discharges.
P260 - Do not breathe vapors, spray, fume.
P264 - Wash hands thoroughly after handling.
P271 - Use only outdoors or in a well-ventilated area.
P272 - Contaminated work clothing should not be allowed out of the workplace.
P280 - Wear protective gloves, protective clothing, eye protection.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.

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P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.
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.
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 - If eye irritation persists: Get medical advice/attention.
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use foam, dry sand, extinguishing powder to extinguish.
P403+P235 - Store in a well-ventilated place. Keep cool
P405 - Store locked up.
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 CA)

No data available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
hexamethylene diisocyanate, oligomers		(CAS-No.) 28182-81-2	< 40	Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 STOT SE 3, H335
methyl acetate	methyl acetate acetate of methyl / acetic acid methyl ester / acetic acid, methyl ester / devoton / ethyl ester of monoacetyl acid / methyl acetate / methyl acetate, anhydrous / methyl acetic ester / methyl ester acetic acid / methyl ethanoate / tereton	(CAS-No.) 79-20-9	30 – 40	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
4-chlorobenzotrifluoride	(para-chlorophenyl)trifluoromethane / (p-chlorophenyl)trifluoromethane / 1-chloro-4(trifluoromethyl)benzene / 4-chloro-1-trifluoromethylbenzene / 4-chloro-alpha,alpha,alpha-trifluorotoluene / 4-chlorobenzotrifluoromethylbenzene / alpha,alpha,alpha-trifluoro-4-chlorotoluene / benzene, 1-chloro-4-(trifluoromethyl)- / p-(trifluoromethyl)chlorobenzene / para-(trifluoromethyl)chlorobenzene / para-chloro-alpha,alpha,alpha-trifluorotoluene / para-chlorobenzotrifluoride / para-chlorobenzylidynettrifluoride / para-chlorotrifluoromethylbenzene / para-trifluoromethylphenylchloride / PCBTF (=para-chlorobenzylidynettrifluoride) / p-chloro-alpha,alpha,alpha-trifluorotoluene / p-chlorobenzotrifluoride / p-chlorobenzylidynettrifluoride / p-chlorotrifluoromethylbenzene / p-trifluoromethylphenylchloride	(CAS-No.) 98-56-6	10 – 15	Flam. Liq. 3, H226 Skin Sens. 1, H317 Aquatic Chronic 2, H411
xylene	xylene AMSCO / benzene, dimethyl- / byk 310 / dimethylbenzene, mixture of isomers / dimethylbenzol, mixture of isomers / formula No 00651 / mebon thinner type 2 / methyltoluene, mixture of isomers / mixed xylenes / paint / solvent xylene / violet 3 / xylene / xylene, mixed isomers, pure / xylo / xylo, mixture of isomers	(CAS-No.) 1330-20-7	5 – 7	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

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Name	Chemical name / Synonyms	Product identifier	%	Classification (GHS CA)
n-butyl acetate	n-butyl acetate 1-acetoxybutane / 1-butyl acetate / acetate of butyl / acetic acid n-butyl ester / acetic acid normal-butyl ester / acetic acid, butyl ester / BUAC / BuAc (=butyl acetate) / butanolacetate / butyl acetate / butyl ethanoate / n-BuAc / n-butyl acetate / normal-butylacetate / normal-butylethanoate	(CAS-No.) 123-86-4	< 3	Flam. Liq. 3, H226 STOT SE 3, H336
solvent naphtha (petroleum), light aromatic	solvent naphtha (petroleum), light aromatic	(CAS-No.) 64742-95-6	< 3	Flam. Liq. 3, H226 STOT SE 3, H336 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
ethylbenzene	ethylbenzene benzene, ethyl- / ethylbenzene / ethylbenzene, anhydrous / phenylethane	(CAS-No.) 100-41-4	1.5 – 3	Flam. Liq. 2, H225 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 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.
First-aid measures general	: IF exposed or concerned: Get medical advice/attention.

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

Other medical advice or treatment	: Treat symptomatically.
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SECTION 5: Fire-fighting measures

5.1. Suitable extinguishing media

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

No additional information available

5.3. Specific hazards arising from the hazardous product

Fire hazard	: Highly flammable liquid and vapor.
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5.4. 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.
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SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

No additional information available

6.2. Methods and materials 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.

6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection"

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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, spray, fume. 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)		
Alberta	OEL STEL (mg/m ³)	757 mg/m ³
Alberta	OEL STEL (ppm)	250 ppm
Alberta	OEL TWA (mg/m ³)	606 mg/m ³
Alberta	OEL TWA (ppm)	200 ppm
Alberta	Regulatory reference	Alberta Regulation 87/2009 (Alberta Regulation 182/2019)
British Columbia	OEL STEL (ppm)	250 ppm
British Columbia	OEL TWA (ppm)	200 ppm
British Columbia	Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Manitoba	OEL STEL (ppm)	250 ppm
Manitoba	OEL TWA (ppm)	200 ppm
Manitoba	Notations and remarks	TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina)
Manitoba	Regulatory reference	ACGIH
New Brunswick	OEL STEL (ppm)	250 ppm
New Brunswick	OEL TWA (ppm)	200 ppm
New Brunswick	Notations and remarks	eye & URT irr
Newfoundland & Labrador	OEL STEL (ppm)	250 ppm
Newfoundland & Labrador	OEL TWA (ppm)	200 ppm
Newfoundland & Labrador	Notations and remarks	TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina)
Newfoundland & Labrador	Regulatory reference	ACGIH
Nova Scotia	OEL STEL (ppm)	250 ppm
Nova Scotia	OEL TWA (ppm)	200 ppm
Nova Scotia	Notations and remarks	TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina)
Nova Scotia	Regulatory reference	ACGIH
Nunavut	OEL STEL (ppm)	250 ppm
Nunavut	OEL TWA (ppm)	200 ppm
Nunavut	Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016
Northwest Territories	OEL STEL (ppm)	250 ppm
Northwest Territories	OEL TWA (ppm)	200 ppm

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methyl acetate (79-20-9)		
Northwest Territories	Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-124-2018)
Ontario	OEL STEL (ppm)	250 ppm
Ontario	OEL TWA (ppm)	200 ppm
Ontario	Regulatory reference	Ontario Occupational Exposure Limits under Regulation 833
Prince Edward Island	OEL STEL (ppm)	250 ppm
Prince Edward Island	OEL TWA (ppm)	200 ppm
Prince Edward Island	Notations and remarks	TLV® Basis: Headache; dizziness; nausea; eye dam (degeneration of ganglion cells in the retina)
Prince Edward Island	Regulatory reference	ACGIH
Saskatchewan	OEL STEL (ppm)	250 ppm
Saskatchewan	OEL TWA (ppm)	200 ppm
Saskatchewan	Regulatory reference	The Occupational Health and Safety Regulations, 1996. Chapter O-1.1 Reg 1
ethylbenzene (100-41-4)		
Ontario	OEL TWA (ppm)	20 ppm
Ontario	Regulatory reference	Ontario Occupational Exposure Limits under Regulation 833
Saskatchewan	OEL STEL (ppm)	125 ppm
Saskatchewan	OEL TWA (ppm)	100 ppm
Saskatchewan	Notations and remarks	Designated Chemical Substance
Saskatchewan	Regulatory reference	The Occupational Health and Safety Regulations, 1996. Chapter O-1.1 Reg 1
n-butyl acetate (123-86-4)		
Canada (Quebec)	VECD (mg/m ³)	950 mg/m ³
Canada (Quebec)	VECD (ppm)	200 ppm
Canada (Quebec)	VEMP (mg/m ³)	713 mg/m ³
Canada (Quebec)	VEMP (ppm)	150 ppm
Canada (Quebec)	Regulatory reference	S-2.1, r. 13 - Regulation respecting occupational health and safety
Alberta	OEL STEL (mg/m ³)	950 mg/m ³
Alberta	OEL STEL (ppm)	200 ppm
Alberta	OEL TWA (mg/m ³)	713 mg/m ³
Alberta	OEL TWA (ppm)	150 ppm
Alberta	Notations and remarks	Occupational exposure limit is based on irritation effects and its adjustment to compensate for unusual work schedules is not required.
Alberta	Regulatory reference	Alberta Regulation 87/2009 (Alberta Regulation 182/2019)
British Columbia	OEL TWA (ppm)	20 ppm
British Columbia	Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
Manitoba	OEL STEL (ppm)	150 ppm
Manitoba	OEL TWA (ppm)	50 ppm
Manitoba	Notations and remarks	TLV® Basis: Eye & URT irr
Manitoba	Regulatory reference	ACGIH
Newfoundland & Labrador	OEL STEL (ppm)	150 ppm
Newfoundland & Labrador	OEL TWA (ppm)	50 ppm
Newfoundland & Labrador	Notations and remarks	TLV® Basis: Eye & URT irr
Newfoundland & Labrador	Regulatory reference	ACGIH
Nova Scotia	OEL STEL (ppm)	150 ppm
Nova Scotia	OEL TWA (ppm)	50 ppm
Nova Scotia	Notations and remarks	TLV® Basis: Eye & URT irr

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n-butyl acetate (123-86-4)		
Nova Scotia	Regulatory reference	ACGIH
Nunavut	OEL STEL (ppm)	200 ppm
Nunavut	OEL TWA (ppm)	150 ppm
Nunavut	Regulatory reference	Occupational Health and Safety Regulations, Nu Reg 003-2016
Northwest Territories	OEL STEL (ppm)	200 ppm
Northwest Territories	OEL TWA (ppm)	150 ppm
Northwest Territories	Regulatory reference	Occupation Health and Safety Regulations R-039-2015 (R-124-2018)
Ontario	OEL STEL (ppm)	200 ppm
Ontario	OEL TWA (ppm)	150 ppm
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833
Prince Edward Island	OEL STEL (ppm)	150 ppm
Prince Edward Island	OEL TWA (ppm)	50 ppm
Prince Edward Island	Notations and remarks	TLV® Basis: Eye & URT irr
Prince Edward Island	Regulatory reference	ACGIH
Saskatchewan	OEL STEL (ppm)	200 ppm
Saskatchewan	OEL TWA (ppm)	150 ppm
Saskatchewan	Regulatory reference	The Occupational Health and Safety Regulations, 1996. Chapter O-1.1 Reg 1

xylene (1330-20-7)		
British Columbia	OEL STEL (ppm)	150 ppm
British Columbia	OEL TWA (ppm)	100 ppm
British Columbia	Regulatory reference	OHS Guidelines Part 5: Chemical Agents and Biological Agents (WorkSafe BC)
New Brunswick	OEL STEL (ppm)	150 ppm
New Brunswick	OEL TWA (ppm)	100 ppm
New Brunswick	Notations and remarks	URT & eye irr; CNS impair
Ontario	OEL STEL (ppm)	150 ppm
Ontario	OEL TWA (ppm)	100 ppm
Ontario	Regulatory reference	Ontario Occuational Exposure Limits under Regulation 833

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

Personal protective equipment:

Gas mask. 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:

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

Personal protective equipment symbol(s):

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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
Relative evaporation rate (butyl acetate=1)	: No data available
Relative evaporation rate (ether=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: > 35 °C
Flash point	: < 0 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapor pressure	: No data available
Vapor pressure at 50 °C	: No data available
Relative density	: No data available
Specific gravity / density	: ≈ 1.05 (1.04 – 1.06) g/cm ³
Solubility	: insoluble in water. soluble in most organic solvents.
Partition coefficient n-octanol/water (Log Pow)	: No data available
Explosion limits	: No data available

9.2. Other information

As Packaged Regulatory VOC	: 245 g/l (2.04 lb/gal)
As Packaged Actual VOC	: 118 g/l (0.98 lb/gal)
Water Content	: 0 wt%
Exempt Compounds by volume	: 51.7 vol %
Exempt Compounds by weight	: 50.0 wt%
Volatiles	: 61.3 wt%
% HAPS	: 7.1 wt%
Percent Solids	: 38.7 wt%
Percent Solids	: 36.86 vol %

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	: Highly flammable liquid and vapor.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: No dangerous reactions known under normal conditions of use.
Conditions to avoid	: Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.
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

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methyl acetate (79-20-9)	
LD50 oral rat	6482 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male, Experimental value, Oral)
LD50 dermal rat	> 2000 mg/kg body weight (OECD 402: Acute Dermal Toxicity, 24 h, Rat, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	49 mg/l
ATE CA (oral)	6482 mg/kg body weight
ATE CA (vapors)	49 mg/l/4h
ATE CA (dust,mist)	49 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 (mg/l)	17.8 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours))
ATE CA (oral)	3500 mg/kg body weight
ATE CA (Dermal)	15432 mg/kg body weight
ATE CA (vapors)	17.8 mg/l/4h
ATE CA (dust,mist)	17.8 mg/l/4h
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
LC50 inhalation rat (Vapors - mg/l/4h)	> 21 mg/l/4h (4 h, OECD Test Guideline 403, rat, vapours)
ATE CA (oral)	10760 mg/kg body weight
ATE CA (Dermal)	14112 mg/kg body weight
ATE CA (Gases)	390 ppmV/4h
solvent naphtha (petroleum), light aromatic (64742-95-6)	
LD50 oral rat	3592 mg/kg (OECD Test Guideline 401, rat)
LD50 dermal rabbit	> 3160 mg/kg (OECD Test Guideline 402)
LC50 inhalation rat (Vapors - mg/l/4h)	> 6.193 mg/l/4h (4 h, OECD Test Guideline 403, vapours)
ATE CA (oral)	3592 mg/kg body weight
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)
LC50 inhalation rat (Dust/Mist - mg/l/4h)	0.39 mg/l/4h (OECD Test Guideline 403, rat, female, inhalation, dust/mist)
ATE CA (Gases)	4500 ppmV/4h
ATE CA (vapors)	11 mg/l/4h
ATE CA (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 CA (oral)	3523 mg/kg body weight
ATE CA (Dermal)	1100 mg/kg body weight
ATE CA (Gases)	6700 ppmV/4h
ATE CA (vapors)	11 mg/l/4h
ATE CA (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.
Reproductive toxicity	: Not classified

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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.

: May cause damage to organs through prolonged or repeated exposure.

STOT-repeated exposure

methyl acetate (79-20-9)	
LOAEC (inhalation, rat, vapour, 90 days)	2000 mg/l
NOAEC (inhalation, rat, vapour, 90 days)	1057 mg/m ³
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.
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.

Aspiration hazard : Not classified

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.

Hazardous to the aquatic environment, short-term (acute) : Not classified

Hazardous to the aquatic environment, long-term (chronic) : Not classified

methyl acetate (79-20-9)	
LC50 fish 1	250 – 350 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Danio rerio, Static system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	1026.7 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, GLP)
EC50 72h algae [mg/l] 1	> 120 mg/l (OECD 201: Alga, Growth Inhibition Test, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, Growth rate)
BCF fish 1	< 1 (Pisces, Literature study)
Partition coefficient n-octanol/water (Log Pow)	0.18 (Experimental value, 20 °C)
Partition coefficient n-octanol/water (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)
4-chlorobenzotrifluoride (98-56-6)	
Partition coefficient n-octanol/water (Log Pow)	3.6

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ethylbenzene (100-41-4)	
LC50 fish 1	5.1 mg/l (ASTM, 96 h, Menidia menidia, Flow-through system, Salt water, Experimental value, Lethal)
EC50 Daphnia 1	2.1 (1.8 – 2.4) mg/l (US EPA, 48 h, Daphnia magna, Static system, Fresh water, Experimental value)
EC50 72h algae [mg/l] 1	5.4 mg/l (US EPA, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Cell numbers)
EC50 72h algae [mg/l] (2)	5.4 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
EC50 96h algae (1)	7.7 mg/l Test organisms (species): Skeletonema costatum
EC50 96h algae (2)	3.6 mg/l Test organisms (species): Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum)
NOEC (chronic)	0.96 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'
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)
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
LOEC (chronic)	1.7 mg/l Test organisms (species): Ceriodaphnia dubia Duration: '7 d'

n-butyl acetate (123-86-4)	
LC50 fish 1	18 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value)
LC50 fish 2	62 mg/l (Leuciscus idus, static system)
EC50 Daphnia 1	44 mg/l (48 h, Daphnia sp., Static system, Fresh water, Experimental value)
EC50 72h algae [mg/l] 1	674.7 mg/l (Desmodesmus subspicatus, Static system, Fresh water, Experimental value)
NOEC (chronic)	23 mg/l Test organisms (species): Daphnia magna Duration: '21 d'
NOEC chronic crustacea	23 mg/l
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)
Partition coefficient n-octanol/water (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)

solvent naphtha (petroleum), light aromatic (64742-95-6)	
Partition coefficient n-octanol/water (Log Pow)	2.1 – 6

xylene (1330-20-7)	
LC50 fish 1	2.6 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Static renewal, Fresh water, Read-across, Lethal)
EC50 Daphnia 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)
EC50 72h algae [mg/l] 1	2.2 mg/l
NOEC chronic fish	> 1.3 mg/l Test organisms (species): Oncorhynchus mykiss (previous name: Salmo gairdneri) Duration: '56 d'
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)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)

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.

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

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

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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.

12.3. Bioaccumulative potential

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

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

ethylbenzene (100-41-4)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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)
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)

n-butyl acetate (123-86-4)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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)
Partition coefficient n-octanol/water (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)

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

xylene (1330-20-7)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).
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)
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)

12.4. Mobility in soil

methyl acetate (79-20-9)	
Surface tension	24 mN/m (20 °C)
Ecology - soil	Highly mobile in soil.
Partition coefficient n-octanol/water (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)
Partition coefficient n-octanol/water (Log Pow)	0.18 (Experimental value, 20 °C)

4-chlorobenzotrifluoride (98-56-6)	
Partition coefficient n-octanol/water (Log Pow)	3.6

ethylbenzene (100-41-4)	
Surface tension	71.2 mN/m (23 °C, 0.058 g/l, EU Method A.5: Surface tension)
Ecology - soil	Low potential for adsorption in soil. Toxic to soil organisms.
Partition coefficient n-octanol/water (Log Koc)	2.71 (log Koc, PCKOCWIN v1.66, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.6 (Experimental value, EU Method A.8: Partition Coefficient, 20 °C)

n-butyl acetate (123-86-4)	
Surface tension	0.0163 N/m (20 °C)
Ecology - soil	Low potential for adsorption in soil.
Partition coefficient n-octanol/water (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, QSAR)
Partition coefficient n-octanol/water (Log Pow)	2.3 (Test data, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)

solvent naphtha (petroleum), light aromatic (64742-95-6)	
Partition coefficient n-octanol/water (Log Pow)	2.1 – 6

xylene (1330-20-7)	
Surface tension	28.01 – 29.76 mN/m (25 °C)

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xylene (1330-20-7)	
Ecology - soil	Low potential for adsorption in soil. May be harmful to plant growth, blooming and fruit formation.
Partition coefficient n-octanol/water (Log Koc)	2.73 (log Koc, Equivalent or similar to OECD 121, Read-across)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Read-across, 20 °C)

12.5. Other adverse effects

Ozone : Not classified

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

14.1. Basic shipping description

In accordance with TDG

Transportation of Dangerous Goods

UN-No. (TDG) : UN1263
Packing group : II - Medium Danger
TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids
Transport document description : UN1263 PAINT RELATED MATERIAL, 3, II
Proper Shipping Name (Transportation of Dangerous Goods) : PAINT RELATED MATERIAL

Hazard labels (TDG) : 3 - Flammable liquids



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 per cent nitrocellulose if the nitrocellulose contains not more than 12.6 per cent 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. SOR/2014-306

Explosive Limit and Limited Quantity Index : 5 L
Excepted quantities (TDG) : E2
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 5 L

14.2. Transport information/DOT

Department of Transport

DOT NA No : UN1263
UN-No.(DOT) : 1263
Packing group (DOT) : II - Medium Danger
Transport document description : UN1263 Paint related material (including paint thinning, drying, removing, or reducing compound), 3, II
Proper Shipping Name (DOT) : Paint related material including paint thinning, drying, removing, or reducing compound

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Safety Data Sheet

according to the Hazardous Products Regulation (February 11, 2015)

Contains Statement Field Selection (DOT) :
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Division (DOT) : 3
Hazard labels (DOT) : 3 - Flammable liquid



Marine pollutant : NO
Dangerous for the environment : No
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).
B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
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 Packaging Non Bulk (49 CFR 173.xxx) : 173
DOT Packaging Bulk (49 CFR 173.xxx) : 242
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.
Other information : No supplementary information available.

14.3. Air and sea transport

IMDG

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

IATA

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

SECTION 15: Regulatory information

15.1. National regulations

methyl acetate (79-20-9)

Listed on the Canadian DSL (Domestic Substances List)

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4-chlorobenzotrifluoride (98-56-6)

Listed on the Canadian DSL (Domestic Substances List)

Canada DSL & NDSL Flags | Substance was manufactured or imported after July 1, 1995

ethylbenzene (100-41-4)

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)

15.2. International regulations

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

ethylbenzene (100-41-4)

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

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

xylene (1330-20-7)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

SECTION 16: Other information

SDS Major/Minor	:	None
Issue date	:	08-07-2019
Revision date	:	08-13-2019
Supersedes	:	08-09-2019

Full text of H-phrases:

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
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
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
H411	Toxic to aquatic life with long lasting effects

SDS Canada U-POL

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.