

**SECTION 1: Identification****1.1. Identification**

Product form	: Mixture
Product name	: ACTIVATOR-MARINE EVOLUTION TOPCOAT
Product code	: MTB0300
Formula	: MTB0300

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

Use of the substance/mixture	: INDUSTRIAL COATING
Use of the substance/mixture	: Industrial use

**1.3. Details of the supplier of the safety data sheet**

Endura Manufacturing Company Ltd.  
12425 149 Street NW  
Edmonton, T5L 2J6 - Canada  
T 1-780-451-4242 - F 1-780-452-5079  
[info@endura.ca](mailto:info@endura.ca) - [www.endurapaint.com/marine](http://www.endurapaint.com/marine)

**1.4. Emergency telephone number**

Emergency number	: In the event of an emergency involving dangerous goods: in Canada call CHEMTREC at 1-800-424-9300 24 hours / 7 days (Account Name for Canada Endura Manufacturing Co. Ltd.) in the US call CHEMTREC at 1-800-424-9300 24 hours / 7 days (Account Name for US is Polyglass Coatings)
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**SECTION 2: Hazard(s) identification****2.1. Classification of the substance or mixture****GHS US classification**

Flammable liquids Category 2	H225	Highly flammable liquid and vapor
Serious eye damage/eye irritation Category 2	H319	Causes serious eye irritation
Respiratory sensitization, Category 1	H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
Skin sensitization, Category 1	H317	May cause an allergic skin reaction
Germ cell mutagenicity Category 1B	H340	May cause genetic defects
Carcinogenicity Category 1B	H350	May cause cancer
Specific target organ toxicity (single exposure) Category 3	H336	May cause drowsiness or dizziness
Full text of H statements : see section 16		

**2.2. Label elements****GHS US labeling**

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

: Danger

Hazard statements (GHS-US) :

: H225 - Highly flammable liquid and vapor  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H336 - May cause drowsiness or dizziness  
H340 - May cause genetic defects  
H350 - May cause cancer

Precautionary statements (GHS-US) :

: 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.  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical/ventilating/lighting equipment  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.

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P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash thoroughly after handling  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P284 - [In case of inadequate ventilation] wear respiratory protection.  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
P304+P341 - If inhaled: If breathing is difficult, 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.  
P312 - Call a poison center/doctor/physician if you feel unwell  
P321 - Specific treatment (see 4.1. First aid procedures on this label)  
P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.  
P337+P313 - If eye irritation persists: Get medical advice/attention.  
P342+P311 - If experiencing respiratory symptoms: Call a poison center or doctor  
P363 - Wash contaminated clothing before reuse.  
P370+P378 - In case of fire: Use dry chemical powder, alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>) to extinguish  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with all local, regional, national and international regulations.

### 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

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Name	Product identifier	wt%	GHS US classification
acetone	(CAS-No.) 67-64-1	20 – 30	Flam. Liq. 2, H225 Eye Irrit. 2, H319 STOT SE 3, H336
2-butoxyethylacetate	(CAS-No.) 112-07-2	10 – 20	Flam. Liq. 4, H227 Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Dermal), H312 Acute Tox. 4 (Inhalation:dust,mist), H332
methyl isobutyl ketone	(CAS-No.) 108-10-1	1.747	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 STOT SE 3, H335
n-butyl acetate	(CAS-No.) 123-86-4	< 5	Flam. Liq. 3, H226 Acute Tox. 2 (Inhalation:vapour), H330 STOT SE 3, H336
solvent naphtha (petroleum), light aromatic	(CAS-No.) 64742-95-6	< 5	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
isophorone di-isocyanate	(CAS-No.) 4098-71-9	< 5	Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335
cumene	(CAS-No.) 98-82-8	0.291	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 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. Call a poison center/doctor/physician if you feel unwell.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. If experiencing respiratory symptoms: Call a poison center or a doctor.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off all contaminated clothing immediately. 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, both acute and delayed

- Symptoms/effects : May cause drowsiness or dizziness.
- Symptoms/effects after inhalation : May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/effects after skin contact : May cause moderate irritation. May cause an allergic skin reaction.
- Symptoms/effects after eye contact : Irritation to eyes.
- Symptoms/effects after ingestion : Harmful if swallowed.

### 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 : Highly flammable liquid and vapor.
- Explosion hazard : May form flammable/explosive vapor-air mixture.
- Reactivity : Highly flammable liquid and vapor.

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### 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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

#### 6.1.1. For non-emergency personnel

Emergency procedures : No open flames, no sparks, and no smoking. Only qualified personnel equipped with suitable protective equipment may intervene. Avoid breathing dust/fume/gas/mist/vapors/spray.

#### 6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Avoid breathing dust/fume/gas/mist/vapors/spray. For further information refer to section 8 Exposure controls/personal protection".

### 6.2. Environmental precautions

Avoid release to the environment. Notify authorities if product enters sewers or public waters.

### 6.3. Methods and material for containment and cleaning up

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 8 : Exposure-controls/personal protection".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Ensure good ventilation of the work station. No naked lights. No smoking. 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. Take all necessary technical measures to avoid or minimize the release of the product on the workplace. Limit quantities of product at the minimum necessary for handling and limit the number of exposed workers. Provide local exhaust or general room ventilation. Floors, walls and other surfaces in the hazard area must be cleaned regularly. Avoid breathing dust/fume/gas/mist/vapors/spray. Avoid contact with skin and eyes.

Hygiene measures : Separate working clothes from town clothes. Launder separately. 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 : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical/ventilating/lighting equipment. Ground/bond container and receiving equipment.

Storage conditions : Keep in fireproof place. Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up.

Incompatible materials : Heat sources.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 2-butoxyethylacetate (112-07-2)

ACGIH	ACGIH TWA (ppm)	20 ppm
ACGIH	Remark (ACGIH)	Hemolysis

#### acetone (67-64-1)

ACGIH	ACGIH TWA (ppm)	250 ppm
ACGIH	ACGIH STEL (ppm)	500 ppm

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acetone (67-64-1)		
ACGIH	Remark (ACGIH)	eye irr; CNS impair; BEI
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2400 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

n-butyl acetate (123-86-4)		
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	ACGIH STEL (ppm)	150 ppm
ACGIH	Remark (ACGIH)	Eye & URT irr
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	710 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	150 ppm

methyl isobutyl ketone (108-10-1)		
ACGIH	ACGIH TWA (ppm)	20 ppm (Methyl isobutyl ketone; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	ACGIH STEL (ppm)	75 ppm (Methyl isobutyl ketone; USA; Short time value; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	URT irr; dizziness; headache
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	410 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

solvent naphtha (petroleum), light aromatic (64742-95-6)		
ACGIH	ACGIH TWA (ppm)	50 ppm

isophorone di-isocyanate (4098-71-9)		
ACGIH	ACGIH TWA (ppm)	0.005 ppm

cumene (98-82-8)		
ACGIH	ACGIH TWA (ppm)	50 ppm
ACGIH	Remark (ACGIH)	Eye, skin, & URT irr; CNS impair
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	245 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	50 ppm

### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Protective gloves.
Eye protection	: Safety glasses.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection.
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
Color	: No data available
Odor	: There may be no odour warning properties, odour is subjective and inadequate to warn of overexposure. Mixture contains one or more component(s) which have the following odour: Pleasant odour Fruity odour Aromatic odour Sweet odour Camphor odour Mild odour Ether-like odour Peppermint odour Irritating/pungent odour
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available

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Boiling point	: 56 °C 132.8 °F
Flash point	: -20 °C -4 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: 0.9 – 12.8 vol %
Explosive properties	: No data available
Oxidizing properties	: No data available
Vapor pressure	: No data available
Relative density	: No data available
Relative vapor density at 20 °C	: No data available
Specific gravity / density	: 0.93 g/ml
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: 407.2 °C 765 °F
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

### 9.2. Other information

VOC content (Regulatory - Less water and exempt solvents)	: 439.12 g/l 3.665 lb/gal
VOC content (Material - Actual)	: 314.42 g/l 2.624 lb/gal
Percent Solids (Weight)	: 42.04 % (wt %)
Percent Solids (Volume)	: 38.468 %
Percent Volatile (Weight)	: 57.96 %
Percent Volatile (Volume)	: 61.532 %

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapor.

### 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Open flame. Direct sunlight. 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

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Likely routes of exposure	: Skin and eye contact; Inhalation; Dermal
Acute toxicity	: Not classified

#### 2-butoxyethylacetate (112-07-2)

LD50 oral rat	1880 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
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<b>2-butoxyethylacetate (112-07-2)</b>	
LD50 dermal rabbit	1500 mg/kg (24 h, Rabbit, Experimental value, Dermal, 14 day(s))
ATE US (oral)	1880 mg/kg body weight
ATE US (dermal)	1500 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h
<b>acetone (67-64-1)</b>	
LD50 oral rat	5800 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal)
LC50 inhalation rat (mg/l)	76 mg/l (Other, 4 h, Rat, Female, Weight of evidence, Inhalation (vapours))
ATE US (oral)	5800 mg/kg body weight
ATE US (dermal)	20000 mg/kg body weight
ATE US (vapors)	76 mg/l/4h
ATE US (dust, mist)	76 mg/l/4h
<b>n-butyl acetate (123-86-4)</b>	
LD50 oral rat	10760 – 12789 mg/kg body weight (Equivalent or similar to OECD 423, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rabbit	> 14112 mg/kg body weight (Equivalent or similar to OECD 402, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	0.74 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Inhalation (mixture of vapour and aerosol), 14 day(s))
ATE US (oral)	10760 mg/kg body weight
ATE US (vapors)	0.74 mg/l/4h
ATE US (dust, mist)	0.74 mg/l/4h
<b>methyl isobutyl ketone (108-10-1)</b>	
LD50 oral rat	2080 mg/kg (Rat; Equivalent or similar to OECD 401; Experimental value)
LD50 dermal rat	≥ 2000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LD50 dermal rabbit	> 16000 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	8.2- 16.4,Rat; Experimental value
LC50 inhalation rat (ppm)	2000 – 4000 ppm/4h (Rat; Experimental value)
ATE US (oral)	2080 mg/kg body weight
ATE US (gases)	2000 ppmV/4h
ATE US (dust, mist)	1.5 mg/l/4h
<b>isophorone di-isocyanate (4098-71-9)</b>	
LD50 oral rat	4814 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s))
LD50 dermal rat	> 7000 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)	0.04 mg/l air (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (aerosol), 28 day(s))
ATE US (oral)	4814 mg/kg body weight
ATE US (dust, mist)	0.5 mg/l/4h
<b>cumene (98-82-8)</b>	
LD50 oral rat	2700 mg/kg body weight (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 014 day(s))
LD50 dermal rabbit	> 3160 mg/kg body weight (24 h, Rabbit, Male / female, Experimental value, Dermal, 14 day(s))
LC50 inhalation rat (mg/l)	39 mg/l (4 h, Rat, Male, Experimental value, Inhalation (vapours), 14 day(s))
ATE US (oral)	2700 mg/kg body weight
ATE US (vapors)	39 mg/l/4h
ATE US (dust, mist)	39 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitization	: May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction.
Germ cell mutagenicity	: May cause genetic defects.

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Carcinogenicity : May cause cancer.

<b>methyl isobutyl ketone (108-10-1)</b>	
IARC group	2B - Possibly Carcinogenic to Humans

<b>cumene (98-82-8)</b>	
IARC group	2B - Possibly Carcinogenic to Humans

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 inhalation : May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

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

Symptoms/effects after eye contact : Irritation to eyes.

Symptoms/effects after ingestion : Harmful if swallowed.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse effects in the environment.

<b>2-butoxyethylacetate (112-07-2)</b>	
LC50 fish 1	20 – 40 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Fresh water, Experimental value, Nominal concentration)
EC50 Daphnia 1	37 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	1570 mg/l (ISO 8692, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)

<b>acetone (67-64-1)</b>	
LC50 fish 1	5540 mg/l (EU Method C.1, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration)

<b>n-butyl acetate (123-86-4)</b>	
LC50 fish 1	18 mg/l (Equivalent or similar to OECD 203, 96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	44 mg/l (Equivalent or similar to OECD 202, 48 h, Daphnia sp., Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	397 mg/l (OECD 201: Alga, Growth Inhibition Test, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Read-across, GLP)

<b>isophorone di-isocyanate (4098-71-9)</b>	
LC50 fish 1	> 72 mg/l (EU Method C.1, 96 h, Danio rerio, Static system, Fresh water, Experimental value, Lethal)
EC50 Daphnia 1	27 mg/l (EU Method C.2, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	> 70 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)

<b>cumene (98-82-8)</b>	
LC50 fish 1	4.8 mg/l (EPA OTS 797.1400, 96 h, Oncorhynchus mykiss, Flow-through system, Fresh water, Experimental value, GLP)
EC50 Daphnia 1	2.14 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)
ErC50 (algae)	2.01 mg/l (EU Method C.3, 72 h, Desmodesmus subspicatus, Static system, Fresh water, Experimental value, GLP)



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### 12.2. Persistence and degradability

<b>2-butoxyethylacetate (112-07-2)</b>	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.1 g O <sub>2</sub> /g substance

<b>acetone (67-64-1)</b>	
Persistence and degradability	Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.43 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.92 g O <sub>2</sub> /g substance
ThOD	2.2 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.872 (20 day(s), Literature study)

<b>n-butyl acetate (123-86-4)</b>	
Persistence and degradability	Readily biodegradable in water.
ThOD	2.21 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.46

<b>methyl isobutyl ketone (108-10-1)</b>	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Low potential for adsorption in soil. Photolysis in the air.
Biochemical oxygen demand (BOD)	2.06 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.16 g O <sub>2</sub> /g substance
ThOD	2.72 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.76

<b>isophorone di-isocyanate (4098-71-9)</b>	
Persistence and degradability	Not readily biodegradable in water.

<b>cumene (98-82-8)</b>	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.28 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	2.42 g O <sub>2</sub> /g substance
ThOD	3.2 g O <sub>2</sub> /g substance

### 12.3. Bioaccumulative potential

<b>2-butoxyethylacetate (112-07-2)</b>	
Partition coefficient n-octanol/water (Log Pow)	1.51 (Experimental value, BASF test, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>acetone (67-64-1)</b>	
BCF fish 1	3 (BCFWIN, Read-across)
Partition coefficient n-octanol/water (Log Pow)	-0.23 (Test data)
Bioaccumulative potential	Not bioaccumulative.

<b>n-butyl acetate (123-86-4)</b>	
Partition coefficient n-octanol/water (Log Pow)	2.3 (Experimental value, OECD 117: Partition Coefficient (n-octanol/water), HPLC method, 25 °C)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

<b>methyl isobutyl ketone (108-10-1)</b>	
BCF fish 1	2 – 5 (BCF)
Partition coefficient n-octanol/water (Log Pow)	1.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

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

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<b>isophorone di-isocyanate (4098-71-9)</b>	
BCF other aquatic organisms 1	634.3 l/kg (BCFBAF v3.01, Estimated value, Fresh weight)
Partition coefficient n-octanol/water (Log Pow)	0.99 (Experimental value, EU Method A.8: Partition Coefficient, 23 °C)
Bioaccumulative potential	Potential for bioaccumulation ( $500 \leq \text{BCF} \leq 5000$ ).

<b>cumene (98-82-8)</b>	
BCF other aquatic organisms 1	94.69 l/kg (BCFBAF v3.00, Calculated value)
Partition coefficient n-octanol/water (Log Pow)	3.55 (Experimental value, OECD 107: Partition Coefficient (n-octanol/water): Shake Flask Method, 23 °C)
Bioaccumulative potential	Low potential for bioaccumulation ( $\text{Log Kow} < 4$ ).

### 12.4. Mobility in soil

<b>2-butoxyethylacetate (112-07-2)</b>	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Koc)	1.179 – 1.637 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

<b>acetone (67-64-1)</b>	
Surface tension	0.0237 N/m
Ecology - soil	Highly mobile in soil.

<b>n-butyl acetate (123-86-4)</b>	
Surface tension	61.3 mN/m (20 °C, 0.1 %, OECD 115: Surface Tension of Aqueous Solutions)
Partition coefficient n-octanol/water (Log Koc)	1.268 – 1.844 (log Koc, SRC PCKOCWIN v2.0, Calculated value)
Ecology - soil	Highly mobile in soil.

<b>methyl isobutyl ketone (108-10-1)</b>	
Surface tension	0.024 N/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	Koc,101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value

<b>isophorone di-isocyanate (4098-71-9)</b>	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Koc)	4.562 (log Koc, PCKOCWIN v1.66, QSAR)
Ecology - soil	Low potential for mobility in soil.

<b>cumene (98-82-8)</b>	
Surface tension	28.2 mN/m (20 °C)
Partition coefficient n-octanol/water (Log Koc)	2.946 (log Koc, Calculated value)
Ecology - soil	Low potential for adsorption in soil.

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.
Product/Packaging disposal recommendations	: Dispose of contents/container in accordance with all local, regional, national and international regulations.
Additional information	: Handle empty containers with care because residual vapors are flammable. Flammable vapors may accumulate in the container.

## SECTION 14: Transport information

### Department of Transportation (DOT)

In accordance with DOT

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

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

Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger

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).

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 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.

### Transportation of Dangerous Goods

Transport document description : UN1263 PAINT RELATED MATERIAL (PAINT RELATED MATERIAL), 3, II

UN-No. (TDG) : UN1263

Proper Shipping Name (Transportation of Dangerous Goods) : PAINT RELATED MATERIAL

TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids

Packing group : 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 per cent nitrocellulose if the nitrocellulose contains not more than 12.6 per cent nitrogen (by dry mass), 83 - Repealed SOR/2014-152

Explosive Limit and Limited Quantity Index : 5

Passenger Carrying Road Vehicle or Passenger

Carrying Railway Vehicle Index : 5

### Transport by sea

Proper Shipping Name (IMDG) : PAINT RELATED MATERIAL

Class (IMDG) : 3 - Flammable liquids

Packing group (IMDG) : II - substances presenting medium danger

### Air transport

No additional information available

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### SECTION 15: Regulatory information

#### 15.1. US Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

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.

methyl isobutyl ketone	CAS-No. 108-10-1	1.747%
isophorone di-isocyanate	CAS-No. 4098-71-9	< 5%
cumene	CAS-No. 98-82-8	0.291%

#### acetone (67-64-1)

Not listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ 5000 lb

#### n-butyl acetate (123-86-4)

Not listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ 5000 lb

#### methyl isobutyl ketone (108-10-1)

Listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ 5000 lb

#### isophorone di-isocyanate (4098-71-9)

Listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ 500 lb

SARA Section 302 Threshold Planning Quantity (TPQ) 500 lb

#### cumene (98-82-8)

Listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ 5000 lb

#### 15.2. International regulations

##### CANADA

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Listed on the Canadian DSL (Domestic Substances List) inventory.

#### EU-Regulations

No additional information available

#### National regulations

#### methyl isobutyl ketone (108-10-1)

Listed on IARC (International Agency for Research on Cancer)

#### cumene (98-82-8)

Listed on IARC (International Agency for Research on Cancer)

#### 15.3. US State regulations

This product can expose you to methyl isobutyl ketone, which is known to the State of California to cause cancer and birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

#### methyl isobutyl ketone (108-10-1)

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 significance risk level (NSRL)
Yes	Yes	No	No	

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cumene (98-82-8)				
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 significance risk level (NSRL)
Yes	No	No	No	

2-butoxyethylacetate (112-07-2)
U.S. - New Jersey - Right to Know Hazardous Substance List

acetone (67-64-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

n-butyl acetate (123-86-4)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

methyl isobutyl ketone (108-10-1)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

isophorone di-isocyanate (4098-71-9)
U.S. - New Jersey - Right to Know Hazardous Substance List

cumene (98-82-8)
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

## SECTION 16: Other information

Full text of H-phrases:

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H227	Combustible liquid
H302	Harmful if swallowed
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
H330	Fatal if inhaled
H331	Toxic if inhaled
H332	Harmful if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
H336	May cause drowsiness or dizziness
H340	May cause genetic defects
H350	May cause cancer
H351	Suspected of causing cancer

SDS US Endura

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