

SECTION 1: Identification

1.1. Identification

Product form : Mixture
 Product name : ACTIVATOR- EXCEL D2M B
 Product code : FUB0401

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

No additional information available

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 - www.endurapaint.com

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)

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
Acute toxicity (inhalation:dust,mist) Category 4	H332	Harmful if inhaled
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
 H332 - Harmful if inhaled
 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.
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
 P271 - Use only outdoors or in a well-ventilated area.
 P272 - Contaminated work clothing must not be allowed out of the workplace

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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
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.
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 (CO2) 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
n-butyl acetate	(CAS-No.) 123-86-4	20 – 30	Flam. Liq. 3, H226 Acute Tox. 2 (Inhalation:vapour), H330 STOT SE 3, H336
methyl isobutyl ketone	(CAS-No.) 108-10-1	8.357	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 STOT SE 3, H335
solvent naphtha (petroleum), light aromatic	(CAS-No.) 64742-95-6	1.929 – 4.5	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
1,2,4-trimethylbenzene	(CAS-No.) 95-63-6	0.643 – 3.214	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 STOT SE 3, H335
n-propylbenzene	(CAS-No.) 103-65-1	0.643 – 3.214	Flam. Liq. 3, H226 STOT SE 3, H335 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	0.643	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304
ethylbenzene	(CAS-No.) 100-41-4	0.643	Flam. Liq. 2, H225 Acute Tox. 4 (Inhalation:dust,mist), H332 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304
1,6-diisocyanatohexane	(CAS-No.) 822-06-0	0.013 – 0.129	Acute Tox. 4 (Oral), H302 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335

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. Call a poison center/doctor/physician if you feel unwell.
- 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 eyes with water as a precaution.
- 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 allergy or asthma symptoms or breathing difficulties if inhaled.
- Symptoms/effects after skin contact : 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.

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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.

Reactivity : Highly flammable liquid and vapor.

5.3. Advice for firefighters

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

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. 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

Precautions for safe handling : Ensure good ventilation of the work station. 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 : Ground/bond container and receiving equipment.

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

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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 ³)	410 mg/m ³

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methyl isobutyl ketone (108-10-1)		
OSHA	OSHA PEL (TWA) (ppm)	100 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 ³)	710 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	150 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 ³)	245 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	50 ppm

ethylbenzene (100-41-4)		
ACGIH	ACGIH TWA (ppm)	20 ppm (Ethyl benzene; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)	URT irr; kidney dam (nephropathy)
OSHA	OSHA PEL (TWA) (mg/m ³)	435 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

1,6-diisocyanatohexane (822-06-0)		
ACGIH	ACGIH TWA (ppm)	0.005 ppm
ACGIH	Remark (ACGIH)	URT irr; resp sens

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	: 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 Sweet odour Camphor odour Fruity odour Mild odour Ether-like odour Peppermint odour Aromatic odour Irritating/pungent odour Petroleum-like 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	: 125.5 °C 257.9 °F
Flash point	: 12 °C 53.6 °F
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosion limits	: 1 – 10.6 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	: 0.985 g/cm ³
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
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)	: 395.96 g/l 3.304 lb/gal
VOC content (Material - Actual)	: 395.96 g/l 3.304 lb/gal
Percent Solids (Weight)	: 59.78 %
Percent Solids (Volume)	: 55.976 %
Percent Volatile (Weight)	: 40.214 %
Percent Volatile (Volume)	: 44.024 %

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

Likely routes of exposure : Dermal; Inhalation; Skin and eye contact

Acute toxicity : Not classified

ACTIVATOR- EXCEL D2M B	
ATE US (dust, mist)	2.479 mg/l/4h

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methyl isobutyl ketone (108-10-1)	
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
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, 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
1,2,4-trimethylbenzene (95-63-6)	
LD50 oral rat	6000 mg/kg body weight (EU Method B.1 tris: Acute oral toxic – Acute toxic class method, Rat, Male, Experimental value, Oral, 014 day(s))
LD50 dermal rat	3440 mg/kg (24 h, Rat, Male / female, Read-across, Dermal)
LC50 inhalation rat (mg/l)	> 10.2 mg/l air (4 h, Rat, Male / female, Read-across, Inhalation (vapours), 14 day(s))
ATE US (oral)	6000 mg/kg body weight
ATE US (dermal)	3440 mg/kg body weight
ATE US (dust, mist)	1.5 mg/l/4h
n-propylbenzene (103-65-1)	
LD50 oral rat	6040 mg/kg (Rat, Literature study, Oral)
ATE US (oral)	6040 mg/kg body weight
isophorone di-isocyanate (4098-71-9)	
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
cumene (98-82-8)	
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
ethylbenzene (100-41-4)	
LD50 oral rat	3500 mg/kg (Rat; Other; Experimental value)
LD50 dermal rabbit	15415 mg/kg (Rabbit; Literature study; Other; 15432 mg/kg; Rabbit; Experimental value)
LC50 inhalation rat (mg/l)	17.8 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	4000 ppm/4h (Rat; Literature study)
ATE US (oral)	3500 mg/kg body weight
ATE US (dermal)	15415 mg/kg body weight
ATE US (gases)	4000 ppmV/4h

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ethylbenzene (100-41-4)	
ATE US (vapors)	17.8 mg/l/4h
ATE US (dust, mist)	1.5 mg/l/4h

1,6-diisocyanatohexane (822-06-0)	
LD50 oral rat	746 mg/kg (Equivalent or similar to OECD 401, Rat, Male, 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)	0.124 mg/l (OECD 403: Acute Inhalation Toxicity, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 28 day(s))
ATE US (oral)	746 mg/kg body weight
ATE US (vapors)	0.124 mg/l/4h
ATE US (dust, mist)	0.124 mg/l/4h

Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
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.
Carcinogenicity	: May cause cancer.

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

cumene (98-82-8)	
IARC group	2B - Possibly Carcinogenic to Humans

ethylbenzene (100-41-4)	
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
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Aspiration hazard	: Not classified
Symptoms/effects after inhalation	: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
Symptoms/effects after skin contact	: 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.
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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, 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)

1,2,4-trimethylbenzene (95-63-6)	
LC50 fish 1	7.72 mg/l (96 h, Pimephales promelas, Flow-through system, Fresh water, Experimental value, Lethal)

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n-propylbenzene (103-65-1)	
LC50 fish 1	1.55 mg/l (96 h, Salmo gairdneri, Literature study)
EC50 Daphnia 1	2 mg/l (24 h, Daphnia magna, Literature study, Locomotor effect)
isophorone di-isocyanate (4098-71-9)	
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)
cumene (98-82-8)	
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)
ethylbenzene (100-41-4)	
LC50 fish 2	4.2 mg/l (LC50; OECD 203: Fish, Acute Toxicity Test; 96 h; Salmo gairdneri; Semi-static system; Fresh water; Experimental value)

12.2. Persistence and degradability

methyl isobutyl ketone (108-10-1)	
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 ₂ /g substance
Chemical oxygen demand (COD)	2.16 g O ₂ /g substance
ThOD	2.72 g O ₂ /g substance
BOD (% of ThOD)	0.76
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
1,2,4-trimethylbenzene (95-63-6)	
Persistence and degradability	Not readily biodegradable in water.
Chemical oxygen demand (COD)	0.44 g O ₂ /g substance
n-propylbenzene (103-65-1)	
Persistence and degradability	Biodegradable in the soil. Not readily biodegradable in water.
isophorone di-isocyanate (4098-71-9)	
Persistence and degradability	Not readily biodegradable in water.
cumene (98-82-8)	
Persistence and degradability	Not readily biodegradable in water.
Biochemical oxygen demand (BOD)	1.28 g O ₂ /g substance
Chemical oxygen demand (COD)	2.42 g O ₂ /g substance
ThOD	3.2 g O ₂ /g substance
ethylbenzene (100-41-4)	
Persistence and degradability	Readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.44 g O ₂ /g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O ₂ /g substance
ThOD	3.17 g O ₂ /g substance
BOD (% of ThOD)	45.4 (20 days)

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1,6-diisocyanatohexane (822-06-0)	
Persistence and degradability	Not readily biodegradable in water.

12.3. Bioaccumulative potential

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

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

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

1,2,4-trimethylbenzene (95-63-6)	
BCF fish 1	243 (Pimephales promelas, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.63 (Experimental value, KOWWIN)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

n-propylbenzene (103-65-1)	
Partition coefficient n-octanol/water (Log Pow)	3.69 (Experimental value)
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).

isophorone di-isocyanate (4098-71-9)	
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 ≤ BCF ≤ 5000).

cumene (98-82-8)	
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 (Log Kow < 4).

ethylbenzene (100-41-4)	
BCF fish 1	1 (BCF; Other; 6 weeks; Oncorhynchus kisutch; Flow-through system; Salt water; Literature study)
BCF fish 2	15 – 79 (BCF)
BCF other aquatic organisms 1	4.68 (BCF)
Partition coefficient n-octanol/water (Log Pow)	3.15 (Experimental value; 3.6; Experimental value; EU Method A.8: Partition Coefficient; 20 °C)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

1,6-diisocyanatohexane (822-06-0)	
BCF fish 1	59.6 (BCFWIN, Pisces, QSAR)
Partition coefficient n-octanol/water (Log Pow)	3.2 (Calculated)
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).

12.4. Mobility in soil

methyl isobutyl ketone (108-10-1)	
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

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

1,2,4-trimethylbenzene (95-63-6)	
Surface tension	No data available in the literature
Partition coefficient n-octanol/water (Log Koc)	3.04 (log Koc, Calculated value)

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1,2,4-trimethylbenzene (95-63-6)	
Ecology - soil	Low potential for mobility in soil. May be harmful to plant growth, blooming and fruit formation.
n-propylbenzene (103-65-1)	
Ecology - soil	Adsorbs into the soil.
isophorone di-isocyanate (4098-71-9)	
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.
cumene (98-82-8)	
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.
ethylbenzene (100-41-4)	
Surface tension	0.029 N/m
Partition coefficient n-octanol/water (Log Koc)	log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated value
1,6-diisocyanatohexane (822-06-0)	
Partition coefficient n-octanol/water (Log Koc)	2.78 – 3.68 (log Koc, Calculated value)
Ecology - soil	Low potential for mobility 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.
Additional information : 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

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

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- 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 : 60

Transport by sea

- UN-No. (IMDG) : 1263
- 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

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	8.357%
1,2,4-trimethylbenzene	CAS-No. 95-63-6	0.643 – 3.214%

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isophorone di-isocyanate	CAS-No. 4098-71-9	< 5%
cumene	CAS-No. 98-82-8	0.643%
ethylbenzene	CAS-No. 100-41-4	0.643%
1,6-diisocyanatohexane	CAS-No. 822-06-0	0.013 – 0.129%
methyl isobutyl ketone (108-10-1)		
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	
1,2,4-trimethylbenzene (95-63-6)		
Listed on SARA Section 313 (Specific toxic chemical listings)		
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	
ethylbenzene (100-41-4)		
Listed on SARA Section 313 (Specific toxic chemical listings)		
EPA TSCA Regulatory Flag	T - T - indicates a substance that is the subject of a Section 4 test rule under TSCA.	
CERCLA RQ	1000 lb	
1,6-diisocyanatohexane (822-06-0)		
Listed on SARA Section 313 (Specific toxic chemical listings)		
CERCLA RQ	100 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)

ethylbenzene (100-41-4)

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.

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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	

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	

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

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				

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				

1,2,4-trimethylbenzene (95-63-6)				
U.S. - New Jersey - Right to Know Hazardous Substance List				

n-propylbenzene (103-65-1)				
U.S. - New Jersey - Right to Know Hazardous Substance 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				

ethylbenzene (100-41-4)				
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				

1,6-diisocyanatohexane (822-06-0)				
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

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Full text of H-phrases:

H225	Highly flammable liquid and vapor
H226	Flammable liquid and vapor
H302	Harmful if swallowed
H304	May be fatal if swallowed and enters airways
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
H373	May cause damage to organs through prolonged or repeated exposure

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