

Safety Data Sheet

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

Date of issue: 11/04/2015 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : ACTIVATOR - DELTA SEALER LOW VOC B

Product code : FUB0211

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 Co. Ltd 12425 149 Street Edmonton, T5L 2J6 - Canada T 780-451-4242 - F 780-452-5079 info@endura.ca - www.endura.ca

1.4. Emergency telephone number

Emergency number : In the event of an emergency involving dangerous goods:

in Canada call CANUTEC at 613-996-6666 or *666 on a cellular phone.

in the US call CHEMTREC at 800-424-9300 (Account Name for US is Polyglass Coatings)

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS-US classification

Flam. Liq. 2 H225 - Highly flammable liquid and vapour

Resp. Sens. 1 H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Skin Sens. 1 H317 - May cause an allergic skin reaction

Muta. 1B H340 - May cause genetic defects

Carc. 1B H350 - May cause cancer

STOT SE 3 H335 - May cause respiratory irritation

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US)





GHS02

02 GHS07

GHS08

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H225 - Highly flammable liquid and vapor

H317 - May cause an allergic skin reaction

H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

H335 - May cause respiratory irritation 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/sparks/open flames/hot surfaces. - 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 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

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skin with water/shower

P304+P340 - If inhaled: 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 or a doctor 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/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. Substance

Not applicable

3.2. Mixture

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Name	Product identifier	%	GHS-US classification
methyl isobutyl ketone	(CAS No) 108-10-1	9.942	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	2.294 - 5.353	Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304
1,2,4-trimethylbenzene	(CAS No) 95-63-6	0.765 - 3.824	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 STOT SE 3, H335 Aquatic Chronic 2, H411
n-propylbenzene	(CAS No) 103-65-1	0.765 - 3.824	Flam. Liq. 3, H226 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
isophorone di-isocyanate	(CAS No) 4098-71-9	0.765	Acute Tox. 3 (Inhalation:dust,mist), H331 Skin Irrit. 2, H315 Resp. Sens. 1, H334 Skin Sens. 1, H317 STOT SE 3, H335 Aquatic Chronic 2, H411
cumene	(CAS No) 98-82-8	0.765	Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
ethylbenzene	(CAS No) 100-41-4	0.765	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	0.143	Acute Tox. 4 (Oral), H302 Acute Tox. 3 (Dermal), H311 Acute Tox. 2 (Inhalation:dust,mist), H330 Skin Irrit. 2, H315 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 or a doctor if you

feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a poison center or a

doctor 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 or a doctor if you feel unwell.

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

Symptoms/injuries after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties

if inhaled.

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

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.

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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/m³)	410 mg/m³
OSHA	OSHA PEL (TWA) (ppm)	100 ppm

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solvent naphtha (petroleum)			
ACGIH	ACGIH TWA (ppr	n)	50 ppm
1,2,4-trimethylbenzene (95-6	3-6)		
ACGIH	ACGIH TWA (ppm)		25 ppm (Trimethyl benzene (mixed isomers); USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
isophorone di-isocyanate (4	098-71-9)		
ACGIH	ACGIH TWA (ppr	n)	0.005 ppm (Isophorone diisocyanate; USA; Time- weighted average exposure limit 8 h; TLV - Adopted Value)
cumene (98-82-8)			
ACGIH	ACGIH TWA (ppr	n)	50 ppm (Cumene; USA; Time-weighted average
ACGIH	Remark (ACGIH)		exposure limit 8 h; TLV - Adopted Value) Eye, skin, & URT irr; CNS impair
OSHA	OSHA PEL (TWA		245 mg/m³
OSHA	OSHA PEL (TWA	, , ,	50 ppm
	OSHA FEE (TWA	(ррш)	30 ррпі
ethylbenzene (100-41-4)			
ACGIH	ACGIH TWA (ppr	n)	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/m³)	435 mg/m³
OSHA	OSHA PEL (TWA) (ppm)		100 ppm
1,6-diisocyanatohexane (822	2-06-0)		
ACGIH	ACGIH TWA (ppm)		0.005 ppm (Hexamethylene diisocyanate; USA; Timeweighted average exposure limit 8 h; TLV - Adopted Value)
ACGIH	Remark (ACGIH)		URT irr; resp sens
3.2. Exposure controls			
ppropriate engineering control		Ensure good ventilation of the work s	tation.
land protection	:	: Protective gloves.	
ye protection	:	Safety glasses.	
kin and body protection	:	Wear suitable protective clothing.	
lespiratory protection		Wear respiratory protection.	
nvironmental exposure control	S :	Avoid release to the environment.	
SECTION 9: Physical ar	nd chemical pro	operties	
.1. Information on basic	c physical and che	mical properties	
Physical state	:	Liquid	
Color	:	: Mixture contains one or more component(s) which have the following colour(s): Colourless No data available on colour Pure substance: colourless Commercial substance yellow Colourless to light yellow	
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(s): Fruity odour Pleasant odour Sweet odour Camphor odour No data available on odour Mild odour Ether-like odour Peppermint odour Aromatic odour Characteristic odour Irritating/pungent odour Petroleum-like odour	
Odor threshold			
Н	: No data available		
Melting point : Not appli		Not applicable	
		No data available	
piling point :		97.8 °C 208.04 °F	
40/40/0045		200.04 F	

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: 4.4 °C Flash point

39.9 °F

Relative evaporation rate (butyl acetate=1) : No data available No data available Flammability (solid, gas) : 1 - 10.6 vol % **Explosion limits** Explosive properties : No data available Oxidizing properties No data available Vapor pressure : No data available : No data available Relative density Relative vapor density at 20 °C : No data available

Specific gravity / density : 1.002 g/cm³

: Water: Solubility in water of component(s) of the mixture : Solubility

• tert-butyl acetate: 0.1 g/100ml • methyl isobutyl ketone: 1.4 g/100ml (20 °C) • n-amyl acetate: 0.17 g/100ml • n-butyl acetate: 0.53 g/100ml (20 °C) • ethyl 3-ethoxypropionate: 9 g/100ml • solvent naphtha (petroleum), light aromatic: < 0.01 g/100ml • 2-methoxy-1methylethyl acetate: 19.8 g/100ml (20 °C, soluble) • 2,6-dimethyl-4-heptanone: 0.05 g/100ml • 1,2,4-trimethylbenzene: 0.0060 g/100ml • n-propylbenzene: 0.0060 g/100ml • isophorone di-isocyanate: g/100ml (23 °C, reacts) 15E-4 • cumene: 0.005 g/100ml • ethylbenzene: 0.02

g/100ml

Log Pow : No data available Auto-ignition temperature No data available Decomposition temperature : No data available : No data available Viscosity Viscosity, kinematic No data available Viscosity, dynamic : No data available

Other information

VOC content (Regulatory - Less water and : 144.732 g/l exempt solvents)

1.208 lb/gal VOC content (Material - Actual) 129.4 g/l

1.08 lb/gal

Percent Solids (Weight) 77.92 % Percent Solids (Volume) 74.727 % Percent Volatile (Weight) : 22.08 % Percent Volatile (Volume) 25.273 %

SECTION 10: Stability and reactivity

10.1. 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.

10.5. Incompatible materials

No additional information available

Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

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methyl is abutyl ketona (109 10 1)	
methyl isobutyl ketone (108-10-1)	2000 as allow (Both Frankischert as similar to OFCD 404. Francisco artal rights)
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)	2080.000 mg/kg body weight
ATE US (gases)	2000.000 ppmV/4h
ATE US (dust, mist)	1.500 mg/l/4h
1,2,4-trimethylbenzene (95-63-6)	
LD50 oral rat	> 5000 mg/kg (Rat; Equivalent or similar to OECD 401; Literature; 6000 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 3440 mg/kg (Rat; Read-across; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	18 mg/l/4h (Rat)
ATE US (vapors)	18.000 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
n-propylbenzene (103-65-1)	
LD50 oral rat	6040 mg/kg (Rat; Literature study)
ATE US (oral)	6040.000 mg/kg body weight
isophorone di-isocyanate (4098-71-9)	
LD50 oral rat	> 2500 mg/kg (Rat; Equivalent or similar to OECD 401; Literature study; 4814 mg/kg bodyweight; Rat; Experimental value)
LD50 dermal rat	> 7000 mg/kg body weight (Rat; Experimental value; OECD 402: Acute Dermal Toxicity)
LC50 inhalation rat (mg/l)	0.67 mg/l/4h (Rat)
ATE US (vapors)	0.670 mg/l/4h
ATE US (dust, mist)	0.670 mg/l/4h
cumene (98-82-8)	1 C.O.O. HIGH-III
LD50 oral rat	> 2000 mg/kg (Rat; Other; Literature study; 4000 mg/kg bodyweight; Rat; Other; Inconclusive,
LD30 oral fat	insufficient data)
LD50 dermal rabbit	10578 mg/kg (Rabbit; Literature study; Other)
LC50 inhalation rat (mg/l)	40 mg/l/4h (Rat; Literature study)
LC50 inhalation rat (ppm)	8000 ppm/4h (Rat; Literature study)
ATE US (dermal)	10578.000 mg/kg body weight
ATE US (gases)	8000.000 ppmV/4h
ATE US (vapors)	40.000 mg/l/4h
ATE US (dust, mist)	40.000 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)	3500.000 mg/kg body weight
ATE US (dermal)	15415.000 mg/kg body weight
ATE US (gases)	4000.000 ppmV/4h
ATE US (vapors)	17.800 mg/l/4h
ATE US (dust, mist)	1.500 mg/l/4h
1,6-diisocyanatohexane (822-06-0)	
LD50 oral rat	745 mg/kg (Rat)
LD50 dermal rabbit	599 mg/kg (Rabbit)
LC50 inhalation rat (mg/l)	0.31 mg/l/4h (Rat)
LC50 inhalation rat (ppm)	45 ppm/4h (Rat)
ATE US (oral)	745.000 mg/kg body weight
ATE US (dermal)	599.000 mg/kg body weight
ATE US (gases)	
ATE US (gases) ATE US (vapors)	45.000 ppmV/4h 0.310 mg/l/4h

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1,6-diisocyanatohexane (822-06-0)	
ATE US (dust, mist)	0.310 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 respiratory irritation.

Specific target organ toxicity (repeated

exposure)

: Not classified

Aspiration hazard : Not classified

Symptoms/injuries after inhalation : May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties

if inhaled.

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

SECTION 12: Ecological information

Ecology - general : The product is not considered harmful to aquatic organisms nor to cause long-term adverse

effects in the environment.

1,2,4-trimethylbenzene (95-63-6)	
LC50 fish 1	7.72 mg/l (LC50; 96 h; Pimephales promelas; Flow-through system; Fresh water)
EC50 Daphnia 1	3.6 mg/l (LC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
Threshold limit algae 2	2.356 mg/l (EC50; ECOSAR; 96 h; Algae; Fresh water)
n-propylbenzene (103-65-1)	
LC50 fish 1	1.55 mg/l (LC50; 96 h; Salmo gairdneri)
EC50 Daphnia 1	2 mg/l (EC50; 24 h; Daphnia magna)
Threshold limit algae 2	1.8 mg/l (EC50; 72 h; Selenastrum capricornutum)
isophorone di-isocyanate (4098-71-9	
LC50 fish 1	> 72 mg/l (LC50; EU Method C.1; 96 h; Danio rerio; Static system; Fresh water; Experimental value)
EC50 Daphnia 1	27 mg/l (EC50; EU Method C.2; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
EC50 Daphnia 2	4 mg/l (LC50; 96 h; Chaetogammarus marinus; Semi-static system; Marine water)
Threshold limit algae 1	> 70 mg/l (EC50; EU Method C.3; 72 h; Scenedesmus subspicatus; Static system; Fresh water; Experimental value)
cumene (98-82-8)	
EC50 Daphnia 1	2.14 mg/l (EC50; OECD 202: Daphnia sp. Acute Immobilisation Test; 48 h; Daphnia magna; Static system; Fresh water; Experimental value)
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)

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1,6-diisocyanatohexane (822-06-0)	
LC50 fish 1	22 mg/l (LC0; Other; 96 h; Brachydanio rerio; Static system)
EC50 Daphnia 1	< 0.33 mg/l (EC0; Other; 24 h; Daphnia magna; Static system)
LC50 fish 2	31 mg/l (LC100; Other; 96 h; Brachydanio rerio; Static system)

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 O₂/g substance
Chemical oxygen demand (COD)	2.16 g O₂/g substance
ThOD	2.72 g O₂/g substance
BOD (% of ThOD)	0.76
1,2,4-trimethylbenzene (95-63-6)	
Persistence and degradability	Not readily biodegradable in water. Forming sediments in water. Biodegradable in the soil. Adsorbs into the soil. Low potential for mobility in soil. Photodegradation in the air.
Chemical oxygen demand (COD)	0.44 g O₂/g substance
n-propylbenzene (103-65-1)	
Persistence and degradability	Not readily biodegradable in water. Biodegradable in the soil. Adsorbs into the soil.
isophorone di-isocyanate (4098-71-9)	
Persistence and degradability	Not readily biodegradable in water. Hydrolysis in water. Low potential for mobility in soil.
cumene (98-82-8)	
Persistence and degradability	Inherently biodegradable. Not readily biodegradable in water. Biodegradable in the soil. Low potential for adsorption in soil.
Biochemical oxygen demand (BOD)	1.28 g O₂/g substance
Chemical oxygen demand (COD)	2.42 g O₂/g substance
ThOD	3.20 g O₂/g substance
BOD (% of ThOD)	0.40
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 O₂/g substance (20d.)
Chemical oxygen demand (COD)	2.1 g O₂/g substance
ThOD	3.17 g O₂/g substance
BOD (% of ThOD)	45.4 (20 days)

12.3. Bioaccumulative potential

1,6-diisocyanatohexane (822-06-0)Persistence and degradability

methyl isobutyl ketone (108-10-1)		
BCF fish 1	2 - 5 (BCF)	
Log Pow	1.9 (Experimental value; OECD 117: Partition Coefficient (n-octanol/water), HPLC method)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
solvent naphtha (petroleum), light aromatic (64742-95-6)		
Log Pow	2.1 - 6	
1,2,4-trimethylbenzene (95-63-6)		
BCF fish 1	31 - 275 (BCF; Other; 8 weeks; Cyprinus carpio)	
Log Pow	3.63 - 4.09 (Experimental value)	
Bioaccumulative potential	Potential for bioaccumulation (4 ≥ Log Kow ≤ 5).	
n-propylbenzene (103-65-1)		
Log Pow	3.69 (Experimental value)	

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Not readily biodegradable in water. Low potential for adsorption in soil.

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n-propylbenzene (103-65-1)		
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	
isophorone di-isocyanate (4098-71-9)		
BCF other aquatic organisms 1	910 BCF; EPIWIN BCF (v 2.15)	
Log Pow	4.75 (QSAR; Other; 25 °C)	
Bioaccumulative potential	Potential for bioaccumulation (500 ≤ BCF ≤ 5000).	
cumene (98-82-8)		
BCF fish 1	35.5 (BCF)	
BCF other aquatic organisms 1	94.69 (BCF; BCFBAF v3.00)	
Log Pow	3.66 (Experimental value; 3.55; Experimental value; OECD 107: Partition Coefficient (noctanol/water): Shake Flask Method; 23 °C)	
Bioaccumulative potential	Low potential for bioaccumulation (BCF < 500).	
ethylbenzene (100-41-4)		
BCF fish 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)	
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)		
Log Pow	1.08 (QSAR)	
Bioaccumulative potential	Low potential for bioaccumulation (Log Kow < 4).	

12.4. Mobility in soil

methyl isobutyl ketone (108-10-1)

, , , , , , , , , , , , , , , , , , , ,	<i>1</i>		
Surface tension	0.024 N/m (20 °C)		
Log Koc	Koc,101.85; Weight of evidence; Calculated value; log Koc; 2.008; Weight of evidence; Calculated value		
1,2,4-trimethylbenzene (95-63-6)			
Surface tension	0.029 N/m		
Log Koc	log Koc,3.04; Calculated value		
Ecology - soil	May be harmful to plant growth, blooming and fruit formation.		
isophorone di-isocyanate (4098-71-9)			
Log Koc	Koc,PCKOCWIN v1.66; 36450; QSAR; log Koc; PCKOCWIN v1.66; 4.562; QSAR		
cumene (98-82-8)			
Log Koc	Koc,884; Calculated value; log Koc; 2.946; Calculated value		
ethylbenzene (100-41-4)			
Surface tension	0.029 N/m		

12.5. Other adverse effects

Log Koc

Effect on the global warming : No known ecological damage caused by this product.

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.

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log Koc,PCKOCWIN v1.66; 2.71; Calculated value; Koc; PCKOCWIN v1.66; 517.8; Calculated

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SECTION 14: Transport information

Department of Transportation (DOT)

Transport hazard class(es) (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 : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Hazard labels (DOT) : 3 - Flammable liquid

3

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 : 5 L

(49 CFR 173.27)

DOT Quantity Limitations Cargo aircraft only (49 : 60 L

CFR 175.75)

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.

TDG

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

UN-No. (TDG) : UN1263

TDG Proper Shipping Name : PAINT RELATED MATERIAL

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

Packing group : II - Medium Danger

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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 - Section 5.12 of Part 5, Means of Containment, does not apply to these dangerous goods if a) the dangerous goods are included in Packing Group II or III; b) the dangerous goods are in quantities less than or equal to 5 L and are in a metal or plastic means of containment; c) the metal or plastic means of containment is inside an outer means of containment and the gross mass of the outer means of containment is less than or equal to 40 kg; d) the means of containment are designed, constructed, filled, closed, secured and maintained so that under normal conditions of transport, including handling, there will be no accidental release of the dangerous goods that could endanger public safety; e) the dangerous goods are transported in palletized loads, a pallet box or unit load device so that individual means of containment are placed or stacked and secured to the pallet by strapping, shrink- or stretch-wrapping or other suitable means; and f) when the dangerous goods are on a road vehicle or a railway vehicle that is to be transported by ship, the pallets, pallet boxes or unit load devices are secured inside the vehicle and the vehicle is closed.

Explosive Limit and Limited Quantity Index : 5
Passenger Carrying Road Vehicle or Passenger : 5

Carrying Railway Vehicle Index

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

methyl isobutyl ketone (108-10-1)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb	

solvent naphtha (petroleum), light aromatic (64742-95-6)

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

1,2,4-trimethylbenzene (95-63-6)

Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)

n-propylbenzene (103-65-1)

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

' '			
isophorone di-isocyanate (4098-71-9)			
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)			
RQ (Reportable quantity, section 304 of EPA's List of Lists)	500 lb		
SARA Section 302 Threshold Planning Quantity (TPQ)	500 lb		

cumene (98-82-8)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	5000 lb	

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ethylbenzene (100-41-4)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory 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.	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb	
1,6-diisocyanatohexane (822-06-0)		
Listed on the United States TSCA (Toxic Substances Control Act) inventory Listed on SARA Section 313 (Specific toxic chemical listings)		
RQ (Reportable quantity, section 304 of EPA's List of Lists)	u's 100 lb	

15.2. International regulations

CANADA

No additional information available

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

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

1,2,4-trimethylbenzene (95-63-6)

U.S. - New Jersey - Right to Know Hazardous Substance List

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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

Full text of H-phrases:

SDS US Endura

Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 3 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 3
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Asp. Tox. 1	Aspiration hazard Category 1
Carc. 1B	Carcinogenicity Category 1B
Carc. 2	Carcinogenicity Category 2
Flam. Liq. 2	Flammable liquids Category 2
	Flammable liquids Category 3
	Germ cell mutagenicity Category 1B
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
	Specific target organ toxicity (single exposure) Category 3
	Highly flammable liquid and vapor
	Flammable liquid and vapor
H302	Harmful if swallowed
	May be fatal if swallowed and enters airways
H311	Toxic in contact with skin
	Causes skin irritation
	May cause an allergic skin reaction
H330	Fatal if inhaled
H331	Toxic if inhaled
	Harmful if inhaled
	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation
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
H411	Toxic to aquatic life with long lasting effects

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