

SECTION 1: Identification**1.1. Identification**

Product form : Mixture
Product name : ACTIVATOR- EDGE B
Product code : FUB0300

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 |

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
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
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.

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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+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 | 10 – 20 | Flam. Liq. 3, H226 Acute Tox. 2 (Inhalation:vapour), H330 STOT SE 3, H336 |
| methyl isobutyl ketone | (CAS-No.) 108-10-1 | 9.286 | 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 | 2.143 – 5 | Flam. Liq. 2, H225 Muta. 1B, H340 Carc. 1B, H350 Asp. Tox. 1, H304 |
| 1,2,4-trimethylbenzene | (CAS-No.) 95-63-6 | 0.714 – 3.571 | 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 | 0.714 – 3.571 | 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 | 0.714 | Flam. Liq. 3, H226 Carc. 2, H351 STOT SE 3, H335 Asp. Tox. 1, H304 |
| ethylbenzene | (CAS-No.) 100-41-4 | 0.714 | 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 | 0.014 – 0.143 | 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 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 | : 0.997 g/ml |
| 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) | : 334.86 g/l 2.794 lb/gal |
| VOC content (Material - Actual) | : 334.86 g/l 2.794 lb/gal |
| Percent Solids (Weight) | : 66.42 % |
| Percent Solids (Volume) | : 63.005 % |
| Percent Volatile (Weight) | : 33.57 % |
| Percent Volatile (Volume) | : 36.995 % |

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- EDGE B | |
| ATE US (dust, mist) | 3.355 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 | : Not classified |

| | |
|--|------------------|
| Specific target organ toxicity – repeated exposure | : Not classified |
|--|------------------|

| | |
|-------------------|------------------|
| 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. |
|-------------------|---|

| 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

No additional information available

Transport by sea

- UN-No. (IMDG) : 1263
- 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 | 9.286% |
| 1,2,4-trimethylbenzene | CAS-No. 95-63-6 | 0.714 – 3.571% |
| isophorone di-isocyanate | CAS-No. 4098-71-9 | < 5% |
| cumene | CAS-No. 98-82-8 | 0.714% |
| ethylbenzene | CAS-No. 100-41-4 | 0.714% |
| 1,6-diisocyanatohexane | CAS-No. 822-06-0 | 0.014 – 0.143% |

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

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| | |
|---|--|
| 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.

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 | |

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| 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

Revision date : 06/17/2021

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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SDS US Endura

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