

SECTION 1: Identification**1.1. Identification**

Product form : Mixture
Product name : ACTIVATOR-EX-2C LOW VOC A.C.T. B
Product code : FUB2100

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

Full text of H-phrases: 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
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled

Precautionary statements (GHS-US) :

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
P272 - Contaminated work clothing must not be allowed out of the workplace
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P284 - [In case of inadequate ventilation] wear respiratory protection
P302+P352 - IF ON SKIN: Wash with plenty of soap and water
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
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+P235 - Store in a well-ventilated place. Keep cool

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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

Name	Product identifier	%	GHS-US classification
1,6-diisocyanatohexane	(CAS No) 822-06-0	0.101	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 : 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.
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off all contaminated clothing immediately.
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 : May cause drowsiness or dizziness.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

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

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapor.
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 : Ventilate spillage area. NO open flames, NO sparks, and NO smoking. 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.

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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 : 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. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapors/spray.
- Hygiene measures : 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

1,6-diisocyanatohexane (822-06-0)		
ACGIH	ACGIH TWA (ppm)	0.005 ppm (Hexamethylene diisocyanate; USA; Time-weighted average exposure limit 8 h; TLV - Adopted Value)
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 : In case of insufficient ventilation, wear suitable respiratory equipment.
- 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 : Mixture contains one or more component(s) which have the following colour(s):
Colourless 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):
Aromatic odour Sweet odour Fruity odour Mild odour Irritating/pungent odour
- Odor threshold : No data available
- pH : No data available
- Melting point : Not applicable
- Freezing point : No data available
- Boiling point : 56 °C
132.8 °F
- Flash point : -20 °C
-4 °F
- Relative evaporation rate (butyl acetate=1) : No data available
- Flammability (solid, gas) : No data available
- Explosion limits : 1.2 - 32.5 vol %

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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	: 0.943 g/ml
Solubility	: Water: Solubility in water of component(s) of the mixture : • acetone: Complete • 4-methyl-1,3-dioxolan-2-one: 18 g/100ml • tert-butyl acetate: 0.1 g/100ml • n-butyl acetate: 0.53 g/100ml (20 °C)
Log Pow	: No data available
Auto-ignition temperature	: 449 °C 840.2 °F
Decomposition temperature	: No data available
Viscosity	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available

9.2. Other information

VOC content (Regulatory - Less water and exempt solvents)	: 34.73 g/l 0.29 lb/gal
VOC content (Material - Actual)	: 9.71 g/l 0.081 lb/gal
Percent Solids (Weight)	: 33.05 % (wt%)
Percent Solids (Volume)	: 26.68 %
Percent Volatile (Weight)	: 66.95 %
Percent Volatile (Volume)	: 73.32 %

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

Acute toxicity : Not classified

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)	45.000 ppmV/4h
ATE US (vapors)	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	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

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.

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

1,6-diisocyanatohexane (822-06-0)	
Persistence and degradability	Not readily biodegradable in water. Low potential for adsorption in soil.

12.3. Bioaccumulative potential

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

No additional information available

12.5. Other adverse effects

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.

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

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

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Hazard labels (DOT) : 3 - Flammable liquid



Packing group (DOT) : II - Medium Danger
DOT Packaging Non Bulk (49 CFR 173.xxx) : 173
DOT Packaging Bulk (49 CFR 173.xxx) : 242
DOT Special Provisions (49 CFR 172.102) : 149 - When transported as a limited quantity or a consumer commodity, the maximum net capacity specified in 173.150(b)(2) of this subchapter for inner packaging may be increased to 5 L (1.3 gallons).
B52 - Notwithstanding the provisions of 173.24b of this subchapter, non-reclosing pressure relief devices are authorized on DOT 57 portable tanks.
IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized.
T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3)
TP1 - The maximum degree of filling must not exceed the degree of filling determined by the following: Degree of filling = $97 / 1 + a (tr - tf)$ Where: tr is the maximum mean bulk temperature during transport, and tf is the temperature in degrees celsius of the liquid during filling.
TP8 - A portable tank having a minimum test pressure of 1.5 bar (150 kPa) may be used when the flash point of the hazardous material transported is greater than 0 C (32 F).
TP28 - A portable tank having a minimum test pressure of 2.65 bar (265 kPa) may be used provided the calculated test pressure is 2.65 bar or less based on the MAWP of the hazardous material, as defined in 178.275 of this subchapter, where the test pressure is 1.5 times the MAWP.
DOT Packaging Exceptions (49 CFR 173.xxx) : 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27) : 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75) : 60 L
DOT Vessel Stowage Location : B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
Other information : No supplementary information available.

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
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 Carrying Railway Vehicle Index : 5

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Transport by sea

UN-No. (IMDG)	: UN1263
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

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)	100 lb
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15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

National regulations

No additional information available

15.3. US State regulations

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:

Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 3 (Dermal)	Acute toxicity (dermal) Category 3
Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Flam. Liq. 2	Flammable liquids Category 2
Resp. Sens. 1	Respiratory sensitisation Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitization Category 1
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H225	Highly flammable liquid and vapor
H302	Harmful if swallowed
H311	Toxic in contact with skin
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H330	Fatal if inhaled
H334	May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335	May cause respiratory irritation

SDS US Endura

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