

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

Product form : Mixture  
Product name : ACTIVATOR - ULTRAFLEX LOW VOC B  
Product code : FUB0141

**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](mailto:info@endura.ca) - [www.endura.ca](http://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  
STOT SE 3 H336 - May cause drowsiness or dizziness

Full text of H-phrases: see section 16

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

Hazard pictograms (GHS-US) :



GHS02

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  
H336 - May cause drowsiness or dizziness

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  
P271 - Use only outdoors or in a well-ventilated area  
P272 - Contaminated work clothing must not be allowed out of the workplace  
P280 - Wear protective gloves/protective clothing/eye protection/face protection  
P284 - [In case of inadequate ventilation] wear respiratory protection  
P302+P352 - IF ON SKIN: Wash with plenty of soap and water  
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing  
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/...

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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

| Name                   | Product identifier | %     | GHS-US classification                                                                                                                                                                        |
|------------------------|--------------------|-------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1,6-diisocyanatohexane | (CAS No) 822-06-0  | 0.534 | Acute Tox. 4 (Oral), H302<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 2 (Inhalation:dust,mist), H330<br>Skin Irrit. 2, H315<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317<br>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. If experiencing respiratory symptoms: Call a poison center or a doctor.  
First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off all contaminated clothing immediately. If skin irritation or rash occurs: Get medical advice/attention.  
First-aid measures after eye contact : Rinse 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.  
Symptoms/injuries after inhalation : 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.

### 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. Avoid contact with skin and eyes.

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### 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.

### 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. Avoid contact with skin and eyes.

Hygiene measures : 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

| 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 : 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 : 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

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|                                             |                                                                                                                                                                                                          |
|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Boiling point                               | : 56 °C<br>132.8 °F                                                                                                                                                                                      |
| Flash point                                 | : -20 °C<br>-4 °F                                                                                                                                                                                        |
| Relative evaporation rate (butyl acetate=1) | : No data available                                                                                                                                                                                      |
| Flammability (solid, gas)                   | : No data available                                                                                                                                                                                      |
| Explosion limits                            | : 1.26 - 32.5 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                  | : 0.961 g/cm <sup>3</sup>                                                                                                                                                                                |
| Solubility                                  | : Water: Solubility in water of component(s) of the mixture :<br>• 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                   | : 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) | : 267.5 g/l<br>2.232 lb/gal |
| VOC content (Material - Actual)                           | : 267.5 g/l<br>2.232 lb/gal |
| Percent Solids (Weight)                                   | : 40.07 %                   |
| Percent Solids (Volume)                                   | : 33.464 %                  |
| Percent Volatile (Weight)                                 | : 59.93 %                   |
| Percent Volatile (Volume)                                 | : 66.536 %                  |

## 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) |

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| 1,6-diisocyanatohexane (822-06-0) |                           |
|-----------------------------------|---------------------------|
| 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             |
| 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)   | : May cause drowsiness or dizziness.                                                                              |
| Specific target organ toxicity (repeated exposure) | : Not classified                                                                                                  |
| Aspiration hazard                                  | : Not classified                                                                                                  |
| Symptoms/injuries after inhalation                 | : 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

### 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.                                           |

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### 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

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

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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 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

### 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

#### 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 |
|--------------------------------------------------------------|--------|

### 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

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### 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               |
| 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                                          |
| H336                                | May cause drowsiness or dizziness                                         |

### SDS US Endura

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