

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

|              |                                 |
|--------------|---------------------------------|
| Product form | : Mixture                       |
| Trade name   | : ACTIVATOR-EX-2C H.A.T. B PLUS |
| Product code | : FUB0071                       |
| Formula      | : FUB0071                       |

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

|                              |                      |
|------------------------------|----------------------|
| Use of the substance/mixture | : INDUSTRIAL COATING |
| Use of the substance/mixture | : Industrial use     |

**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](mailto:info@endura.ca) - [www.endurapaint.com](http://www.endurapaint.com)

**1.4. Emergency telephone number**

|                  |   |
|------------------|---|
| Emergency number | : In the event of an emergency involving dangerous goods:<br>in Canada call CHEMTREC at 1-800-424-9300 24 hours / 7 days (Account Name for Canada Endura Manufacturing Co. Ltd.)<br>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   |
| Serious eye damage/eye irritation Category 2                | H319 | Causes serious eye irritation   |
| Respiratory sensitization, Category 1                       | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| Skin sensitization, Category 1                              | H317 | May cause an allergic skin reaction                                       |
| Germ cell mutagenicity Category 1B                          | H340 | May cause genetic defects   |
| Carcinogenicity Category 1B                                 | H350 | May cause cancer  |
| Specific target organ toxicity (single exposure) Category 3 | H336 | May cause drowsiness or dizziness   |
| Full text of H statements : see section 16                  |      |   |

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

Hazard pictograms (GHS-US) :



Signal word (GHS-US) :

: Danger

Hazard statements (GHS-US) :

: H225 - Highly flammable liquid and vapor  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H334 - May cause allergy or asthma symptoms or breathing difficulties if inhaled  
H336 - May cause drowsiness or dizziness  
H340 - May cause genetic defects  
H350 - May cause cancer

Precautionary statements (GHS-US) :

: P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/Bond container and receiving equipment  
P241 - Use explosion-proof electrical/ventilating/lighting equipment  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
P264 - Wash thoroughly after handling  
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  
P304+P341 - If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing  
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing  
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.  
P337+P313 - If eye irritation persists: 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 (CO<sub>2</sub>) to extinguish  
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.  
P403+P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/container in accordance with all local, regional, national and international regulations.

### 2.3. Other hazards

No additional information available

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

| Name  | Product identifier   | wt%     | GHS US classification  |
|---|----------------------|---------|--|
| acetone                                     | (CAS-No.) 67-64-1    | 20 – 30 | Flam. Liq. 2, H225<br>Eye Irrit. 2, H319<br>STOT SE 3, H336  |
| 2-butoxyethylacetate                        | (CAS-No.) 112-07-2   | 10 – 20 | Flam. Liq. 4, H227<br>Acute Tox. 4 (Oral), H302<br>Acute Tox. 4 (Dermal), H312<br>Acute Tox. 4 (Inhalation:dust,mist), H332                            |
| methyl isobutyl ketone                      | (CAS-No.) 108-10-1   | 1.747   | Flam. Liq. 2, H225<br>Acute Tox. 4 (Inhalation:dust,mist), H332<br>Carc. 2, H351<br>STOT SE 3, H335  |
| n-butyl acetate                             | (CAS-No.) 123-86-4   | < 5     | Flam. Liq. 3, H226<br>Acute Tox. 2 (Inhalation:vapour), H330<br>STOT SE 3, H336  |
| solvent naphtha (petroleum), light aromatic | (CAS-No.) 64742-95-6 | < 5     | Flam. Liq. 2, H225<br>Muta. 1B, H340<br>Carc. 1B, H350<br>Asp. Tox. 1, H304  |
| isophorone di-isocyanate                    | (CAS-No.) 4098-71-9  | < 5     | Acute Tox. 3 (Inhalation:dust,mist), H331<br>Skin Irrit. 2, H315<br>Eye Irrit. 2, H319<br>Resp. Sens. 1, H334<br>Skin Sens. 1, H317<br>STOT SE 3, H335 |
| cumene                                      | (CAS-No.) 98-82-8    | 0.291   | Flam. Liq. 3, H226<br>Carc. 2, H351<br>STOT SE 3, H335<br>Asp. Tox. 1, H304  |

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. Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. 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 cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.   |
| First-aid measures after ingestion    | : Call a poison center/doctor/physician if you feel unwell.  |

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

|                                     |   |
|-------------------------------------|---|
| Symptoms/effects                    | : May cause drowsiness or dizziness.  |
| Symptoms/effects after inhalation   | : May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| Symptoms/effects after skin contact | : May cause moderate irritation. 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.

## 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.              |
| Explosion hazard | : May form flammable/explosive vapor-air mixture. |
| Reactivity       | : Highly flammable liquid and vapor.              |

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

### 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

General measures : Remove ignition sources. Use special care to avoid static electric charges. No naked lights. No smoking.

#### 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. Avoid breathing dust/fume/gas/mist/vapors/spray. 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

Additional hazards when processed : Handle empty containers with care because residual vapors are flammable.

Precautions for safe handling : Ensure good ventilation of the work station. No naked lights. No smoking. 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 : Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof electrical/ventilating/lighting equipment. Ground/bond container and receiving equipment.

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

Incompatible materials : Heat sources.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 2-butoxyethylacetate (112-07-2)

|       |                 |           |
|-------|-----------------|-----------|
| ACGIH | ACGIH TWA (ppm) | 20 ppm    |
| ACGIH | Remark (ACGIH)  | Hemolysis |

#### acetone (67-64-1)

|       |                  |         |
|-------|------------------|---------|
| ACGIH | ACGIH TWA (ppm)  | 250 ppm |
| ACGIH | ACGIH STEL (ppm) | 500 ppm |

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

| acetone (67-64-1) |                                     |                          |
|-------------------|-------------------------------------|--------------------------|
| ACGIH             | Remark (ACGIH)                      | eye irr; CNS impair; BEI |
| OSHA              | OSHA PEL (TWA) (mg/m <sup>3</sup> ) | 2400 mg/m <sup>3</sup>   |
| OSHA              | OSHA PEL (TWA) (ppm)                | 1000 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 <sup>3</sup> ) | 710 mg/m <sup>3</sup> |
| OSHA                       | OSHA PEL (TWA) (ppm)                | 150 ppm               |

| 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 <sup>3</sup> ) | 410 mg/m <sup>3</sup>   |
| OSHA                              | OSHA PEL (TWA) (ppm)                | 100 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 <sup>3</sup> ) | 245 mg/m <sup>3</sup>            |
| OSHA             | OSHA PEL (TWA) (ppm)                | 50 ppm                           |

### 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           | : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. 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.<br>Mixture contains one or more component(s) which have the following odour:<br>Pleasant odour Fruity odour Aromatic odour Sweet odour Camphor odour Mild odour Ether-like odour Peppermint odour Irritating/pungent odour |
| Odor threshold | : No data available  |
| pH             | : No data available  |
| Melting point  | : Not applicable   |
| Freezing point | : No data available  |

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

|   |                      |
|---|----------------------|
| 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                                | : 0.9 – 12.8 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                      | : 0.93 g/ml          |
| Solubility                                      | : No data available  |
| Partition coefficient n-octanol/water (Log Pow) | : No data available  |
| Auto-ignition temperature                       | : 407.2 °C<br>765 °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) | : 439.119 g/l<br>3.665 lb/gal |
| VOC content (Material - Actual)                           | : 314.42 g/l<br>2.624 lb/gal  |
| Percent Solids (Weight)                                   | : 42.04 % (wt %)              |
| Percent Solids (Volume)                                   | : 38.468 %                    |
| Percent Volatile (Weight)                                 | : 60.19 %                     |
| Percent Volatile (Volume)                                 | : 61.532 %                    |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Highly flammable liquid and vapor.

### 10.2. Chemical stability

Highly flammable liquid and vapor. May form flammable/explosive vapor-air mixture.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Open flame. Direct sunlight. 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

May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

|                           |  |
|---------------------------|--|
| Likely routes of exposure | : Skin and eye contact; Inhalation; Dermal |
| Acute toxicity            | : Not classified                           |

#### 2-butoxyethylacetate (112-07-2)

|               |   |
|---------------|---|
| LD50 oral rat | 1880 mg/kg (Equivalent or similar to OECD 401, Rat, Male / female, Experimental value, Oral, 14 day(s)) |
|---------------|---|

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

| <b>2-butoxyethylacetate (112-07-2)</b>      |   |
|---|---|
| LD50 dermal rabbit                          | 1500 mg/kg (24 h, Rabbit, Experimental value, Dermal, 14 day(s))  |
| ATE US (oral)                               | 1880 mg/kg body weight  |
| ATE US (dermal)                             | 1500 mg/kg body weight  |
| ATE US (dust, mist)                         | 1.5 mg/l/4h   |
| <b>acetone (67-64-1)</b>                    |   |
| LD50 oral rat                               | 5800 mg/kg (Equivalent or similar to OECD 401, Rat, Female, Experimental value, Oral, 14 day(s))                                  |
| LD50 dermal rabbit                          | 20000 mg/kg (Equivalent or similar to OECD 402, Rabbit, Male, Experimental value, Dermal)   |
| LC50 inhalation rat (mg/l)                  | 76 mg/l (Other, 4 h, Rat, Female, Weight of evidence, Inhalation (vapours))   |
| ATE US (oral)                               | 5800 mg/kg body weight  |
| ATE US (dermal)                             | 20000 mg/kg body weight   |
| ATE US (vapors)                             | 76 mg/l/4h  |
| ATE US (dust, mist)                         | 76 mg/l/4h  |
| <b>n-butyl acetate (123-86-4)</b>           |   |
| 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  |
| <b>methyl isobutyl ketone (108-10-1)</b>    |   |
| 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   |
| <b>isophorone di-isocyanate (4098-71-9)</b> |   |
| 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   |
| <b>cumene (98-82-8)</b>                     |   |
| 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  |

|                                   |   |
|-----------------------------------|---|
| Skin corrosion/irritation         | : Not classified  |
| Serious eye damage/irritation     | : Causes serious eye irritation.  |
| 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.  |

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

Carcinogenicity : May cause cancer.

| <b>methyl isobutyl ketone (108-10-1)</b> |                                      |
|--|--------------------------------------|
| IARC group                               | 2B - Possibly Carcinogenic to Humans |

| <b>cumene (98-82-8)</b> |                                      |
|-------------------------|--------------------------------------|
| IARC group              | 2B - Possibly Carcinogenic to Humans |

Reproductive toxicity : Not classified

Specific target organ toxicity – single exposure : May cause drowsiness or dizziness.

Specific target organ toxicity – repeated exposure : Not classified

Aspiration hazard : Not classified

Symptoms/effects after inhalation : May cause drowsiness or dizziness. May cause allergy or asthma symptoms or breathing difficulties if inhaled.

Symptoms/effects after skin contact : May cause moderate irritation. 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.

| <b>2-butoxyethylacetate (112-07-2)</b> |   |
|--|---|
| LC50 fish 1                            | 20 – 40 mg/l (OECD 203: Fish, Acute Toxicity Test, 96 h, Oncorhynchus mykiss, Fresh water, Experimental value, Nominal concentration) |
| EC50 Daphnia 1                         | 37 mg/l (DIN 38412-11, 48 h, Daphnia magna, Static system, Fresh water, Experimental value, Locomotor effect)                         |
| ErC50 (algae)                          | 1570 mg/l (ISO 8692, 72 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Nominal concentration)    |

| <b>acetone (67-64-1)</b> |   |
|--------------------------|---|
| LC50 fish 1              | 5540 mg/l (EU Method C.1, 96 h, Oncorhynchus mykiss, Static system, Fresh water, Experimental value, Nominal concentration) |

| <b>n-butyl acetate (123-86-4)</b> |  |
|-----------------------------------|--|
| 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) |

| <b>isophorone di-isocyanate (4098-71-9)</b> |  |
|---|--|
| 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)  |

| <b>cumene (98-82-8)</b> |  |
|-------------------------|--|
| 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)                                      |



# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

### 12.2. Persistence and degradability

| <b>2-butoxyethylacetate (112-07-2)</b> |                                   |
|--|-----------------------------------|
| Persistence and degradability          | Readily biodegradable in water.   |
| ThOD                                   | 2.1 g O <sub>2</sub> /g substance |

| <b>acetone (67-64-1)</b>        |  |
|---------------------------------|--|
| Persistence and degradability   | Biodegradable in the soil. Biodegradable in the soil under anaerobic conditions. Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.43 g O <sub>2</sub> /g substance   |
| Chemical oxygen demand (COD)    | 1.92 g O <sub>2</sub> /g substance   |
| ThOD                            | 2.2 g O <sub>2</sub> /g substance  |
| BOD (% of ThOD)                 | 0.872 (20 day(s), Literature study)  |

| <b>n-butyl acetate (123-86-4)</b> |                                    |
|-----------------------------------|------------------------------------|
| Persistence and degradability     | Readily biodegradable in water.    |
| ThOD                              | 2.21 g O <sub>2</sub> /g substance |
| BOD (% of ThOD)                   | 0.46                               |

| <b>methyl isobutyl ketone (108-10-1)</b> |   |
|--|---|
| 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 <sub>2</sub> /g substance  |
| Chemical oxygen demand (COD)             | 2.16 g O <sub>2</sub> /g substance  |
| ThOD                                     | 2.72 g O <sub>2</sub> /g substance  |
| BOD (% of ThOD)                          | 0.76  |

| <b>isophorone di-isocyanate (4098-71-9)</b> |                                     |
|---|-------------------------------------|
| Persistence and degradability               | Not readily biodegradable in water. |

| <b>cumene (98-82-8)</b>         |                                     |
|---------------------------------|-------------------------------------|
| Persistence and degradability   | Not readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 1.28 g O <sub>2</sub> /g substance  |
| Chemical oxygen demand (COD)    | 2.42 g O <sub>2</sub> /g substance  |
| ThOD                            | 3.2 g O <sub>2</sub> /g substance   |

### 12.3. Bioaccumulative potential

| <b>2-butoxyethylacetate (112-07-2)</b>          |  |
|---|--|
| Partition coefficient n-octanol/water (Log Pow) | 1.51 (Experimental value, BASF test, 25 °C)      |
| Bioaccumulative potential                       | Low potential for bioaccumulation (Log Kow < 4). |

| <b>acetone (67-64-1)</b>                        |                         |
|---|-------------------------|
| BCF fish 1                                      | 3 (BCFWIN, Read-across) |
| Partition coefficient n-octanol/water (Log Pow) | -0.23 (Test data)       |
| Bioaccumulative potential                       | Not bioaccumulative.    |

| <b>n-butyl acetate (123-86-4)</b>               |   |
|---|---|
| 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).  |

| <b>methyl isobutyl ketone (108-10-1)</b>        |  |
|---|--|
| 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).   |

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

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

| <b>isophorone di-isocyanate (4098-71-9)</b>     |  |
|---|--|
| 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).                      |

| <b>cumene (98-82-8)</b>                         |   |
|---|---|
| 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).  |

### 12.4. Mobility in soil

| <b>2-butoxyethylacetate (112-07-2)</b>          |  |
|---|--|
| Surface tension                                 | No data available in the literature                          |
| Partition coefficient n-octanol/water (Log Koc) | 1.179 – 1.637 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil                                  | Highly mobile in soil.                                       |

| <b>acetone (67-64-1)</b> |                        |
|--------------------------|------------------------|
| Surface tension          | 0.0237 N/m             |
| Ecology - soil           | Highly mobile in soil. |

| <b>n-butyl acetate (123-86-4)</b>               |  |
|---|--|
| 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.   |

| <b>methyl isobutyl ketone (108-10-1)</b>        |  |
|---|--|
| 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 |

| <b>isophorone di-isocyanate (4098-71-9)</b>     |                                       |
|---|---------------------------------------|
| 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.   |

| <b>cumene (98-82-8)</b>                         |                                       |
|---|---------------------------------------|
| 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. |

### 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.                                |
| Product/Packaging disposal recommendations | : Dispose of contents/container in accordance with all local, regional, national and international regulations.              |
| Additional information                     | : Handle empty containers with care because residual vapors are flammable. 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<br>including paint thinning, drying, removing, or reducing compound              |

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

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

### Transportation of Dangerous Goods

Transport document description : UN1263 PAINT RELATED MATERIAL (PAINT RELATED MATERIAL), 3, II  
UN-No. (TDG) : UN1263  
Proper Shipping Name (Transportation of Dangerous Goods) : PAINT RELATED MATERIAL  
TDG Primary Hazard Classes : 3 - Class 3 - Flammable Liquids  
Packing group : II - Medium Danger  
TDG Special Provisions : 59 - Substances that are listed by name in Schedule 1 must not be transported under this shipping name. Substances transported under this shipping name may contain not more than 20 per cent nitrocellulose if the nitrocellulose contains not more than 12.6 per cent nitrogen (by dry mass),83 - Repealed SOR/2014-152  
Explosive Limit and Limited Quantity Index : 5  
Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index : 5

### Transport by sea

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

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

### 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  | 1.747% |
| isophorone di-isocyanate | CAS-No. 4098-71-9 | < 5%   |
| cumene                   | CAS-No. 98-82-8   | 0.291% |

#### acetone (67-64-1)

Not 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

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

Listed on SARA Section 313 (Specific toxic chemical listings)

CERCLA RQ 5000 lb

#### 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

#### 15.2. International regulations

##### CANADA

#### ACTIVATOR-EX-2C H.A.T. B PLUS

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)

#### 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](http://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  |                                   |

# ACTIVATOR-EX-2C H.A.T. B PLUS

## Safety Data Sheet

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

| 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  |                                   |

| 2-butoxyethylacetate (112-07-2)                            |
|--|
| U.S. - New Jersey - Right to Know Hazardous Substance List |

| acetone (67-64-1)   |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

| n-butyl acetate (123-86-4)  |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

| methyl isobutyl ketone (108-10-1)   |
|---|
| U.S. - Massachusetts - Right To Know List<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) 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<br>U.S. - New Jersey - Right to Know Hazardous Substance List<br>U.S. - Pennsylvania - RTK (Right to Know) List |

## SECTION 16: Other information

Revision date : 01/05/2022

Full text of H-phrases:

|      |   |
|------|---|
| H225 | Highly flammable liquid and vapor   |
| H226 | Flammable liquid and vapor  |
| H227 | Combustible liquid  |
| H302 | Harmful if swallowed  |
| H304 | May be fatal if swallowed and enters airways                              |
| H312 | Harmful in contact with skin  |
| 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   |

SDS US Endura

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