1 Identification

- **Product identifier**
- **Trade name:** Kleer Cellular PVC Laminating Adhesive, Part B
- **Relevant identified uses of the substance or mixture:** Activator

- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  Extreme Adhesives, LLC  
  A Division of Royal Adhesives & Sealants, LLC  
  63 Epping Road  
  Raymond, NH 03077  
  800-888-4583

- **Information department:** Environment protection department.
- **Emergency telephone number:**
  ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.  
  Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

2 Hazard(s) identification

- **Classification of the substance or mixture**

  ![GHS02 Flame]

  Flam. Liq. 2 H225 Highly flammable liquid and vapor.
  Harmful to aquatic life.

- **Label elements**
- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**

  ![GHS02]

- **Signal word** Danger
- **Hazard statements**
  Highly flammable liquid and vapor.
  Harmful to aquatic life.
- **Precautionary statements**
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
  Use explosion-proof electrical/ventilating/lighting/equipment.
  Wear protective gloves / eye protection / face protection.
  Ground/bond container and receiving equipment.
  Keep container tightly closed.
  Use only non-sparking tools.

(Contd. on page 2)
Avoid release to the environment.
Take precautionary measures against static discharge.
IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
In case of fire: Use for extinction: CO2, powder or water spray.
Store in a well-ventilated place. Keep cool.
Dispose of contents/container in accordance with local/regional/national/international regulations.

- Classification system:
  - NFPA ratings (scale 0 - 4)
    - Health = 2
    - Fire = 3
    - Reactivity = 2
  - HMIS-ratings (scale 0 - 4)
    - Health = 2
    - Fire = 3
    - Physical Hazard = 2

- Other hazards
  - Results of PBT and vPvB assessment
    - PBT: Not applicable.
    - vPvB: Not applicable.

### 3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture

**Hazardous components:**

<table>
<thead>
<tr>
<th>Chemical</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-62-6 methyl methacrylate</td>
<td>25-50%</td>
</tr>
<tr>
<td>13463-67-7 titanium dioxide</td>
<td>2.5-10%</td>
</tr>
</tbody>
</table>

### 4 First-aid measures

- Description of first aid measures
  - After inhalation:
    - Supply fresh air and to be sure call for a doctor.
    - In case of unconsciousness place patient stably in side position for transportation.
  - After skin contact: Immediately wash with water and soap and rinse thoroughly.
  - After eye contact:
    - Rinse opened eye for 20 minutes under running water. If eye becomes irritated, obtain medical treatment.
  - After swallowing:
    - Rinse out mouth with water. Drink 1 - 2 glasses of water but DO NOT induce vomiting. Do not give liquids to a drowsy, convulsing or unconscious person. If vomiting occurs spontaneously, keep head below hips to prevent aspiration.
    - Seek medical treatment.
- Information for doctor:
  - Most important symptoms and effects, both acute and delayed: No further relevant information available.
  - Indication of any immediate medical attention and special treatment needed:
    - No further relevant information available.
5 Fire-fighting measures

- Extinguishing media
- Suitable extinguishing agents:
  - Foam
  - CO2, sand, extinguishing powder. Do not use water.
- For safety reasons unsuitable extinguishing agents: Water
- Special hazards arising from the substance or mixture No further relevant information available.
- Advice for firefighters
  - Protective equipment: Protective clothing and respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away. Ensure adequate ventilation
  - Environmental precautions: Do not allow to enter sewers/surface or ground water.
  - Methods and material for containment and cleaning up:
    - Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
    - Dispose of contaminated material as waste in accordance with federal state and local regulations. Ensure adequate ventilation.
- Reference to other sections
  - See Section 7 for information on safe handling.
  - See Section 8 for information on personal protection equipment.
  - See Section 13 for disposal information.

7 Handling and storage

- Handling:
- Precautions for safe handling
  - Avoid prolonged or repeated contact with skin.
  - Avoid contact with eyes.
  - Wash thoroughly after handling.
  - Handle/ process in well ventilated areas.
  - Open containers in a well ventilated area and avoid breathing headspace vapors.
  - Prevent formation of aerosols.
- Information about protection against explosions and fires:
  - Keep container closed when not in use.
  - Keep ignition sources away - Do not smoke.
  - Protect against electrostatic charges.
- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles:
    - Store at temperatures not exceeding 37.7°C
    - Store in a cool location away from direct heat.
  - Information about storage in one common storage facility: Store away from oxidizing agents.
  - Further information about storage conditions:
    - Protect from contamination.
    - Store in dry conditions.
    - Keep receptacle tightly sealed.
Trade name: Kleer Cellular PVC Laminating Adhesive, Part B

· Specific end use(s) No further relevant information available.

8 Exposure controls/personal protection

· Additional information about design of technical systems: No further data; see item 7.

· Control parameters

Components with limit values that require monitoring at the workplace:

<table>
<thead>
<tr>
<th>Component</th>
<th>PEL Long-term value</th>
<th>REL Long-term value</th>
<th>TLV Short-term value</th>
<th>Long-term value</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-62-6 methyl methacrylate</td>
<td>410 mg/m³, 100 ppm</td>
<td>410 mg/m³, 100 ppm</td>
<td>410 mg/m³, 100 ppm</td>
<td>205 mg/m³, 50 ppm</td>
</tr>
<tr>
<td>13463-67-7 titanium dioxide</td>
<td>15* mg/m³</td>
<td>See Pocket Guide App. A</td>
<td>10 mg/m³</td>
<td>withdrawn from NIC</td>
</tr>
</tbody>
</table>

· Additional information: The lists that were valid during the creation were used as basis.

· Exposure controls

· Personal protective equipment (see listings below)

· General protective and hygienic measures:
  Keep away from foodstuffs, beverages and feed.
  Immediately remove all soiled and contaminated clothing.
  Wash hands before breaks and at the end of work.
  Avoid contact with the skin.
  Avoid contact with the eyes and skin.

· Breathing equipment:
  Use approved respiratory protection equipment when airborne exposure is excessive. Consult the respirator manufacturer to determine the appropriate type of equipment for a given application. Observe respirator use limitations specified by the manufacturer.

· Protection of hands:

   Protective gloves

   The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

   · Material of gloves
     Nitrile rubber, NBR
     The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.

   · Penetration time of glove material
     The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
## 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Eye protection:</strong></td>
<td>Safety glasses with side shields.</td>
</tr>
<tr>
<td><strong>Body protection:</strong></td>
<td>Protective work clothing</td>
</tr>
<tr>
<td><strong>Trade name:</strong> Kleer Cellular PVC Laminating Adhesive, Part B</td>
<td></td>
</tr>
<tr>
<td><strong>Appearance:</strong></td>
<td>Form: Paste, Color: white - Yellow-brown</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>Characteristic</td>
</tr>
<tr>
<td><strong>Odour threshold:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>pH-value:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Melting point:</strong></td>
<td>Undetermined</td>
</tr>
<tr>
<td><strong>Boiling point:</strong></td>
<td>101 °C (214 °F)</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>10 °C (50 °F)</td>
</tr>
<tr>
<td><strong>Flammability (solid, gaseous):</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>Ignition temperature:</strong></td>
<td>430 °C (806 °F)</td>
</tr>
<tr>
<td><strong>Decomposition temperature:</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Auto igniting:</strong></td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td><strong>Flammable limits:</strong></td>
<td>Lower: 2.1 Vol %, Upper: 12.5 Vol %</td>
</tr>
<tr>
<td><strong>Vapor pressure at 20 °C (68 °F):</strong></td>
<td>47 hPa (35 mm Hg)</td>
</tr>
<tr>
<td><strong>Specific gravity at 20 °C (68 °F):</strong></td>
<td>0.97 g/cm³ (8.095 lbs/gal)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>&gt;1 at 20C</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>3</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong></td>
<td>Not determined</td>
</tr>
<tr>
<td><strong>Viscosity:</strong></td>
<td>Dynamic: Not determined, Kinematic: Not determined</td>
</tr>
<tr>
<td><strong>Solvent content:</strong></td>
<td>Organic solvents: 0.0 %</td>
</tr>
</tbody>
</table>
10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: No dangerous reactions known.
- Conditions to avoid
Heat, flames, sparks, hot surfaces, ignition sources.
Direct sunlight
- Incompatible materials:
Strong oxidizers, acids, and bases.
Reacts with amines.
Reacts with moisture
Reducing agents.
Reacts with ultraviolet radiation

- Hazardous decomposition products:
Nitrogen oxides
Carbon monoxide and carbon dioxide
Hydrogen cyanide (prussic acid)
Isocyanate
Hydrocarbons

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
  - on the skin: May irritate the skin.
  - on the eye: May irritate the eye.
- Sensitization: No sensitizing effects known.
- Additional toxicological information:
The product is not subject to classification according to internally approved calculation methods for preparations:

- Carcinogenic categories
- IARC (International Agency for Research on Cancer)
  - 80-62-6 methyl methacrylate
  - 13463-67-7 titanium dioxide
- NTP (National Toxicology Program)
  None of the ingredients is listed.
- OSHA-Ca (Occupational Safety & Health Administration)
  None of the ingredients is listed.

12 Ecological information

- Toxicity
- Aquatic toxicity: No further relevant information available.
13 Disposal considerations

- Waste treatment methods
  - Recommendation: Must be specially treated adhering to official regulations.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.

14 Transport information

- UN-Number
  - DOT, ADR, IMDG, IATA UN1133

- UN proper shipping name
  - DOT Adhesives
  - ADR 1133 Adhesives mixture
  - IMDG, IATA ADHESIVES mixture

- Transport hazard class(es)
  - DOT
    - Class 3 Flammable liquids
    - Label 3

  - ADR, IMDG, IATA
    - Class 3 Flammable liquids
    - Label 3

- Packing group
  - DOT, ADR, IMDG, IATA II
Safety Data Sheet  
acc. to OSHA HCS

Printing Date 06/10/2015  
Revision Number 1  
Revision Date 06/10/2015

Trade name: Kleer Cellular PVC Laminating Adhesive, Part B

- **Environmental hazards:** Not applicable.

- **Special precautions for user**
  - Warning: Flammable liquids
  - Danger code (Kemler): 339
  - EMS Number: F-E,S-D

- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

- **UN "Model Regulation":** UN1133, Adhesives mixture, 3, II

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - **Section 355 (extremely hazardous substances):** None of the ingredients is listed.
    - **Section 313 (Specific toxic chemical listings):** 80-62-6 methyl methacrylate

- **TSCA (Toxic Substances Control Act):** All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

- **Proposition 65**
  - **Chemicals known to cause cancer:** 13463-67-7 titanium dioxide
  - **Chemicals known to cause reproductive toxicity:** None of the ingredients is listed.

- **(DSL) Canada Domestic Substance List**
  - All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

- **Cancerogenity categories**
  - **EPA (Environmental Protection Agency)**
    - 80-62-6 methyl methacrylate E, NL
  - **TLV (Threshold Limit Value established by ACGIH)**
    - 80-62-6 methyl methacrylate A4
    - 13463-67-7 titanium dioxide A4
  - **MAK (German Maximum Workplace Concentration)**
    - 13463-67-7 titanium dioxide 3A
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    - 13463-67-7 titanium dioxide

- **National regulations:**
  - **Water hazard class:** Water hazard class 1 (Self-assessment): slightly hazardous for water.
  - **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the...
Safety Data Sheet
acc. to OSHA HCS

Trade name: Kleer Cellular PVC Laminating Adhesive, Part B

(Contd. of page 8)
completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

- Department issuing SDS: Environment protection department.
- Creation Date: 06/10/2015
- Date of preparation / last revision 06/10/2015 / -
- Abbreviations and acronyms:
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - IMDG: International Maritime Code for Dangerous Goods
  - DOT: US Department of Transportation
  - IATA: International Air Transport Association
  - ACGIH: American Conference of Governmental Industrial Hygienists
  - EINECS: European Inventory of Existing Commercial Chemical Substances
  - ELINCS: European List of Notified Chemical Substances
  - CAS: Chemical Abstracts Service (division of the American Chemical Society)
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)
  - Flam. Liq. 2: Flammable liquids, Hazard Category 2
  - Hazardous to the aquatic environment - Acute Hazard, Category 3

USA