1 Identification

· Product identifier
  · Trade name: Kleer Cellular PVC Adhesive, 20-25 Minute, 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.
  GHS08 Health hazard
  STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
  H402 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
    GHS08

· Signal word Danger
· Hazard statements
  Highly flammable liquid and vapor.
  May cause damage to organs through prolonged or repeated exposure.
  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.

(Contd. on page 2)
Trade name: Kleer Cellular PVC Adhesive, 20-25 Minute, Part B

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Use explosion-proof electrical/ventilating/lighting/equipment.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves / eye protection / face protection.
Ground/bond container and receiving equipment.
Keep container tightly closed.
Use only non-sparking tools.
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.
Get medical advice/attention if you feel unwell.
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
    Health = 2
    FIRE
    Fire = 3
    PHYSICAL HAZARD
    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:
  - 80-62-6 methyl methacrylate 25-50%
  - 13463-67-7 titanium dioxide 5-20%
  - 25973-55-1 2,2'-Benzotriazol-2-yl)-4,6-ditertpentylphenol 2.5-10%
  - 64742-88-7 Solvent naphtha (petroleum), medium aliph. 2.5-10%

4 First-aid measures

- Description of first aid measures
- After inhalation:
  Supply fresh air or oxygen; call for 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.
Trade name: Kleer Cellular PVC Adhesive, 20-25 Minute, Part B

40.1.1 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.
Trade name: Kleer Cellular PVC Adhesive, 20-25 Minute, Part B

- Conditions for safe storage, including any incompatibilities
- Storage:
  - Requirements to be met by storerooms and receptacles: 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.
- 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>Substance</th>
<th>PEL</th>
<th>REL</th>
<th>TLV</th>
</tr>
</thead>
<tbody>
<tr>
<td>80-62-6 methyl methacrylate</td>
<td>Long-term 410 mg/m³, 100 ppm</td>
<td>Long-term 410 mg/m³, 100 ppm</td>
<td>Short-term 410 mg/m³, 100 ppm</td>
</tr>
<tr>
<td>13463-67-7 titanium dioxide</td>
<td>Long-term 15 mg/m³</td>
<td>See Pocket Guide App. A</td>
<td>Long-term 10 mg/m³</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
Trade name: Kleer Cellular PVC Adhesive, 20-25 Minute, Part B

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.

- **Eye protection:**
  Safety glasses with side shields.

- **Body protection:** Protective work clothing

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Appearance</strong></td>
<td></td>
</tr>
<tr>
<td>Form</td>
<td>Paste</td>
</tr>
<tr>
<td>Color</td>
<td>Off White</td>
</tr>
<tr>
<td>Odor</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td><strong>pH-value at 20 °C (68 °F):</strong></td>
<td>3.2</td>
</tr>
<tr>
<td><strong>Change in condition</strong></td>
<td></td>
</tr>
<tr>
<td>Melting point</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point</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>Danger of explosion:</strong></td>
<td>Product is not explosive. However, formation of explosive air/vapor mixtures are possible.</td>
</tr>
<tr>
<td><strong>Flammable limits:</strong></td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>2.1 Vol %</td>
</tr>
<tr>
<td>Upper</td>
<td>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>1.03 g/cm³ (8.595 lbs/gal)</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>&gt;1 at 20°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>3</td>
</tr>
<tr>
<td><strong>Solubility in / Miscibility with Water:</strong></td>
<td>Insoluble</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water):</strong></td>
<td>Not determined.</td>
</tr>
</tbody>
</table>
Trade name: Kleer Cellular PVC Adhesive, 20-25 Minute, Part B

- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
- Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- Possibility of hazardous reactions: Polymerization may occur upon loss of inhibitor.
- Conditions to avoid: Heat, flames, sparks, hot surfaces, ignition sources.
- Incompatible materials: Strong oxidizers, acids, and bases.
- Hazardous decomposition products: Carbon monoxide and carbon dioxide

11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
- Primary irritant effect:
  - on the skin: May irritate the skin. Irritant to skin and mucous membranes.
  - on the eye: May irritate the eye.
- Sensitization: Skin Contact - Sensitization possible through skin contact.
- Additional toxicological information:
The product shows the following dangers according to internally approved calculation methods for preparations:
  - Irritant
- Carcinogenic categories
  - IARC (International Agency for Research on Cancer)
    - 80-62-6 methyl methacrylate: 3
    - 13463-67-7 titanium dioxide: 2B
  - 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.
- Persistence and degradability: No further relevant information available.
- Behavior in environmental systems:
- Bioaccumulative potential: No further relevant information available.
- Mobility in soil: No further relevant information available.
13 Disposal considerations

- Waste treatment methods
  - Recommendation:
    Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
    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
  - ADR  1133 Adhesives
  - IMDG, IATA ADHESIVES

- 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
  - Environmental hazards: Not applicable.
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.
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.

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 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 Rout (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
  - STOT RE 2: Specific target organ toxicity - Repeated exposure, Hazard Category 2
  - H302: Hazardous to the aquatic environment - AcuteHazard, Category 3