1 Identification of the substance/mixture and of the company/undertaking

· Product identifier

· Trade name: Double Bubble Epoxy Extra Fast Setting Red Pkg. Part B (04001)
· Relevant identified uses of the substance or mixture and uses advised against
· Application of the substance / the preparation Adhesives
· Details of the supplier of the safety data sheet
· Manufacturer/Supplier: Royal Adhesives And Sealants, LLC
  2001 W. Washington Street
  South Bend IN 46628-2023
· Information department: Environment protection department.
· Emergency telephone number: ChemTrec: UNITED STATES 1(800)424-9300  INTERNATIONAL 703-527-3887

2 Hazards identification

· Classification of the substance or mixture
  Skin Irrit. 2  H315  Causes skin irritation.
  H319  Causes serious eye irritation.
  Acute Tox. 5  H303  May be harmful if swallowed.

· Classification according to Directive 67/548/EEC or Directive 1999/45/EC Not applicable.
· Information concerning particular hazards for human and environment:
The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU/US" in the latest valid version.
· Classification system:
The classification was made according to the latest editions of international substances lists, and expanded upon from company and literature data.

· Label elements

· Labelling according to EU guidelines:
  Observe the general safety regulations when handling chemicals.
  The product is not subject to identification regulations according to directives on hazardous materials.
· Classification system:
· NFPA ratings (scale 0 - 4)

  Health = 2
  Fire = 1
  Reactivity = 0

· HMIS-ratings (scale 0 - 4)

  HEALTH 2
  FIRE 1
  PHYSICAL HAZARD 0

  Health = 2
  Fire = 1
  Physical Hazard = 0

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

(Contd. on page 2)
3 Composition/information on ingredients

- Chemical characterization: Mixtures
- Description: Mixture consisting of the following components.
- Dangerous components:
  - Mercaptan Terminated Polymer: 50-100%
  - Tertiary Amine: 2.5-10%

  - Acute Tox. 4, H302; Skin Irrit. 2, H315; Eye Irrit. 2, H319

- Additional information: For the wording of the listed risk phrases refer to section 15.

4 First aid measures

- Description of first aid measures
- After inhalation: Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. 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 several minutes under running water.
- After swallowing: Do not induce vomiting; immediately call for medical help.
- 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 Firefighting measures

- Extinguishing media
- Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray. Use fire fighting measures that suit the environment.
- Special hazards arising from the substance or mixture: No further relevant information available.
- Advice for firefighters
- Protective equipment: Mouth respiratory protective device.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Ensure adequate ventilation
  - Wear protective clothing.
- 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).
- Reference to other sections
  - No dangerous substances are released.
  - 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
    Use only in well ventilated areas.
    Prevent formation of aerosols.
  - Information about protection against explosions and fires: No special measures required.

- Conditions for safe storage, including any incompatibilities

- Storage:
  - Requirements to be met by storerooms and receptacles: No special requirements.
  - Information about storage in one common storage facility:
    Store away from flammable substances.
    Store away from oxidizing agents.
  - Further information about storage conditions: Protect from heat and direct sunlight.
  - 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:
  The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

- 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:
  The usual precautionary measures for handling chemicals should be followed.

- Breathing equipment: Not required.

- 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
  Chloroprene rubber, CR
  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. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

- Penetration time of glove material
  The exact breakthrough 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.

  Tightly sealed goggles
### 9 Physical and chemical properties

**Information on basic physical and chemical properties**

**General Information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Form:</td>
<td>Liquid</td>
</tr>
<tr>
<td>Color:</td>
<td>Beige</td>
</tr>
<tr>
<td>Odor:</td>
<td>Characteristic</td>
</tr>
<tr>
<td>Odour threshold:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

**Change in condition**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melting point:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point:</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Flash point:</td>
<td>&gt; 121°C (&gt; 250 °F)</td>
</tr>
</tbody>
</table>

**Flammability (solid, gaseous):** Not applicable.

**Ignition temperature:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting:</td>
<td>Product is not selfigniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
</tbody>
</table>

**Flammable limits:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

**Vapor pressure:** Not determined.

**Specific gravity at 20°C (68 °F):** 1.13 g/cm³ (9.43 lbs/gal)

**Relative density:** Not determined.

**Vapour density:** Not determined.

**Evaporation rate:** Not determined.

**Solubility in / Miscibility with Water:** Not miscible or difficult to mix.

**Segregation coefficient (n-octonol/water):** Not determined.

**Viscosity:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>

**Solvent content:**

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Organic solvents:</td>
<td>0.0 %</td>
</tr>
<tr>
<td>VOC (Per EPA 24)</td>
<td>35.25 GMS/L</td>
</tr>
</tbody>
</table>

**Solids content:** 100.0 %

**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** Reacts with strong oxidizing agents.
  - **Conditions to avoid** No further relevant information available.
  - **Incompatible materials:** Reacts with oxidizing agents.

**Hazardous decomposition products:**
- Carbon monoxide
- Carbon dioxide
- Nitrogen oxides (NOx)
- Sulfur dioxide

**11 Toxicological information**

- **Information on toxicological effects**
- **Acute toxicity:**
  - **Primary irritant effect:**
    - **on the skin:** Irritant to skin and mucous membranes.
    - **on the eye:** Irritating effect.
  - **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)**
    None of the ingredients is listed.
  - **NTP (National Toxicology Program)**
    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.

**Additional ecological information:**
- **General notes:**
  Water hazard class 1 (Self-assessment): slightly hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** 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, ADN, IMDG, IATA: Void

- UN proper shipping name
  - DOT, ADR, ADN, IMDG, IATA: Void

- Transport hazard class(es)
  - DOT, ADR, ADN, IMDG, IATA: Void

- Packing group
  - DOT, ADR, IMDG, IATA: Void

- Special precautions for user
  - Not applicable.

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

- Transport/Additional information:
  - Not dangerous according to the above specifications.

- UN "Model Regulation":
  - -

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):
  - None of the ingredients is listed.

- 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:
  - None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity:
  - None of the ingredients is listed.

(Contd. on page 7)
Material Safety Data Sheet
acc. to ISO/DIS 11014

Trade name: Double Bubble Epoxy Extra Fast Setting Red Pkg. Part B (04001)

(Contd. of page 6)

- **(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)**
    None of the ingredients is listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    None of the ingredients listed.
  - **MAK (German Maximum Workplace Concentration)**
    None of the ingredients is listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    None of the ingredients is listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    None of the ingredients is listed.

- **Product related hazard informations:**
  Observe the general safety regulations when handling chemicals.
  
  The product is not subject to identification regulations according to directives on hazardous materials.

- **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 MSDS are presented in good faith and are believed to be correct as of the date of this MSDS, 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 MSDS.

- **Department issuing MSDS:** Environment protection department.

- **Abbreviations and acronyms:**
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - ICAO: International Civil Aviation Organization
  - 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
  - NFPA: National Fire Protection Association (USA)
  - HMIS: Hazardous Materials Identification System (USA)