1 Identification

- **Product identifier**
- **Trade name:** 60-7170RCL
- **Article number:** UV Formulation
- **Relevant identified uses of the substance or mixture and uses advised against**
  No further relevant information available.
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
  Epoxies, Etc.
  21 Starline Way
  Cranston, RI 02921
  USA
  General Telephone: 401-946-5564
- **Information department:** Product safety department.
- **Emergency telephone number:**
  Domestic: 800-255-3924   International: +01-813-248-0585

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS07
  - **Skin Irrit. 2** H315 Causes skin irritation.
  - **Eye Irrit. 2A** H319 Causes serious eye irritation.
  - **Skin Sens. 1** H317 May cause an allergic skin reaction.
- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms** GHS07
  - **Signal word** Warning
- **Hazard-determining components of labeling:**
  - **reaction product:** bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight \( \leq 700 \))
  - **Mixed triarylsulfonium hexafluoroantimonate salt**
- **Hazard statements**
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause an allergic skin reaction.
- **Precautionary statements**
  - If medical advice is needed, have product container or label at hand.
  - Keep out of reach of children.
  - Read label before use.
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Wear protective gloves.
  - Wear eye protection / face protection.
  - Wash thoroughly after handling.
  - Contaminated work clothing must not be allowed out of the workplace.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - Specific treatment (see on this label).
  - Wash contaminated clothing before reuse.
  - If skin irritation or rash occurs: Get medical advice/attention.

(Contd. on page 2)
If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of water.
Take off contaminated clothing and wash it before reuse.
Dispose of contents/container in accordance with local/regional/national/international regulations.

Classification system:
- **NFPA ratings (scale 0 - 4)**
  - Health = 1
  - Fire = 1
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - Health = 1
  - Fire = 1
  - Reactivity = 0

Other hazards

**WARNING!** This is a light sensitive product polymerized by exposure to UV Light. Do not expose to Ultraviolet Light/Radiation, Direct Sunlight, High temperatures (>100 F), and oxidizing agents.

High temperatures, exposure to light, radiation exposure, inhibitor depletion, accidental impurities, inert gas blanketing, and oxidizing agents may cause spontaneous polymerization reaction. Polymerization in large masses may cause excess exothermic reaction generating heat and also pressure. Closed containers may rupture or explode during runaway polymerization.

- **Results of PBT and vPvB assessment**
  - PBT: Not applicable.
  - vPvB: Not applicable.

### 3 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Mixture of the substances listed below with nonhazardous additions.

#### Dangerous components:

<table>
<thead>
<tr>
<th>CAS Number</th>
<th>Description</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>25068-38-6</td>
<td>reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)</td>
<td>50-100%</td>
</tr>
<tr>
<td>2386-87-0</td>
<td>7-Oxabicyclo[4.1.0]heptane-3-carboxylic acid,7oxibicyclo[4.1.0]hept-3-ylmethyl ester</td>
<td>25-50%</td>
</tr>
<tr>
<td>37625-56-2</td>
<td>Polyester Polyol</td>
<td>10-25%</td>
</tr>
<tr>
<td>109037-75-4</td>
<td>Mixed triarylsulfonium hexafluoroantimonate salt</td>
<td>≤ 2.5%</td>
</tr>
</tbody>
</table>

#### Additional information:

**HEALTH HAZARDS / ROUTES OF EXPOSURE**

**INHALATION:** No significant signs or symptoms indicative of any adverse health hazard are expected to occur at standard conditions due to the low volatility of this material. However, aerosols, or vapors which may be generated at elevated processing temperatures, may cause respiratory tract irritation. Symptoms of irritation may include coughing, mucous production and shortness of breath.

**EYE CONTACT -- PRIMARY ROUTE:** Although no appropriate human or animal health effects data are known to exist, this material is expected to cause eye irritation. May cause moderate irritation with symptoms including burning sensation, tearing, redness or swelling.

**SKIN ABSORPTION -- PRIMARY ROUTE:** Although no appropriate human or animal health effects data are known to exist, this material is expected to be a slight skin absorption hazard.
SKIN IRRITATION -- PRIMARY ROUTE: Although no appropriate human or animal health effects data are known to exist, this material is expected to be a skin irritant. Symptoms may include localized redness or rash and swelling of the affected area. Symptoms may be delayed. A more severe skin response may occur after prolonged contact with this material. Although no appropriate human or animal health effects data is known to exist, this material may cause an allergic skin reaction (sensitization) in susceptible individuals upon repeated exposure.

INGESTION: Although no appropriate human or animal health effects data are known to exist, this material is expected to be a slight ingestion hazard.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: This material or its emissions may induce an allergic or sensitization reaction and thereby aggravate systemic disease.

### 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. If skin irritation continues, consult a doctor.
  - **After eye contact:**
    Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
  - **After swallowing:**
    Seek immediate medical advice. A person vomiting while lying on their back should be turned onto their side. DO NOT attempt to give anything by mouth to an unconscious person.

- **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:**
    CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
  - **Special hazards arising from the substance or mixture**
    High temperatures, exposure to light, radiation exposure, inhibitor depletion, accidental impurities, inert gas blanketing, and oxidizing agents may cause spontaneous polymerization reaction. Polymerization in large masses may cause excess exothermic reaction generating heat and also pressure. Closed containers may rupture or explode during runaway polymerization.
  - **Advice for firefighters**
  - **Protective equipment:**
    Do not enter fire area with out proper protection. Acrid smoke/fumes/carbon monoxide/carbon dioxide/nitrogen oxides and perhaps other toxic vapors may be released during a fire involving this product. Fight fire from safe distance/protected location. Heat/impurities may increase temperature/build pressure/rupture closed containers, spreading fire, increasing risk of burns/injuries. Water may be ineffective in firefighting due to low solubility. Use water spray/fog for cooling. Pressure relief system may plug with solids, increasing risk of overpressure. Notify authorities if liquid enters sewer/public waters.

(Contd. of page 2)
6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
  Wear protective clothing.
  Keep people at a distance and stay upwind.

· **Environmental precautions:**
  Do not allow product to reach sewage system or any water course.
  Inform respective authorities in case of seepage into water course or sewage system.
  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).
  Ensure adequate ventilation.
  Spilled or released material may polymerize and release heat/gases. Extinguish all ignition sources and ventilate area.
  Wear protective equipment during clean up.
  Dike and recover large spill.
  Soak up small spill with inert solids (such as vermiculite, clay) and sweep/shovel into vented disposal container.
  Wash spill area with a strong detergent and water solution; rinse with water but minimize water use during clean up.
  For spills on water, contain, minimize dispersion and collect.
  Dispose/report per regulatory requirements.

· **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

· **Precautions for safe handling**
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
  Wear appropriate protective equipment when handling this material (See Section 8 of MSDS).
  Do not use localized heat sources such as ovens or band heaters to heat product.
  Exposing this product to elevated temperatures (>100 F) may compromise the product quality and/or result in an uncontrolled hazardous polymerization.
  Product is packaged with inhibitor(s).
  The product's inhibitor(s) require the presence of dissolved oxygen.
  Maintain, at a minimum, the original headspace in the product container and do not blanket or mix with oxygen-free gas.
  as it renders inhibitor ineffective.

· **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:**
    Store in dark area away from light.
    Store at temperatures between 25 C - 35 C.
    Store indoors. DO NOT EXPOSE TO OXYGEN-FREE GAS.
  · **Information about storage in one common storage facility:**
    Not required.
  · **Further information about storage 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:**
  If handling results in aerosol or vapor generation, local exhaust ventilation is recommended.
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:
- 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 eyes and skin.
  Use good personal hygiene practices. Wash hands before eating, drinking, smoking, or using toilet facilities.
  Promptly remove soiled clothing/wash thoroughly before reuse. Shower after work using plenty of soap and water.
- Breathing equipment:
  In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- If this material is handled at elevated temperatures or under mist/vapor forming conditions, NIOSH/MSHA approved respiratory protection equipment should be used.

- Protection of hands:
  Protective gloves
  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- Material of gloves
  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:
  Tightly sealed goggles
- Body protection: Impervious protective clothing

9 Physical and chemical properties
- Information on basic physical and chemical properties
- General Information
- Appearance:
  Form: Liquid
  Color: According to product specification
Trade name: 60-7170RCL

40. Odor:
   - Odor: Mild
   - Odour threshold: Not determined.

41. pH-value:
   - pH-value: Not determined.

42. Change in condition:
   - Melting point/Melting range: Undetermined.
   - Boiling point/Boiling range: 211 °C (412 °F)

43. Flash point:
   - Flash point: 118 °C (244 °F)

44. Flammability (solid, gaseous):
   - Flammability: Not applicable.

45. Ignition temperature:
   - Decomposition temperature: Not determined.

46. Auto igniting:
   - Auto igniting: Product is not selfigniting.

47. Danger of explosion:
   - Danger of explosion: Product does not present an explosion hazard.

48. Explosion limits:
   - Lower: Not determined.
   - Upper: Not determined.

49. Vapor pressure:
   - Vapor pressure: Not determined.

50. Density:
   - Density: Not determined.
   - Relative density: Not determined.
   - Vapour density: Not determined.
   - Evaporation rate: Not determined.

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

52. Partition coefficient (n-octanol/water):
   - Partition coefficient: Not determined.

53. Viscosity:
   - Dynamic: Not determined.
   - Kinematic: Not determined.

54. Solvent content:
   - Organic solvents: 0.5 %

55. Other information:
   - Other information: No further relevant information available.

10 Stability and reactivity

- Reactivity
  - Chemical stability
    - Thermal decomposition / conditions to be avoided:
      No decomposition if used and stored according to specifications.
      Avoid elevated temperatures.

- Possibility of hazardous reactions
  - Reacts with amines.
  - Reacts with catalysts, oxidizing agents and strong alkali.
  - Hazardous polymerization may occur if mixed with amines in large masses and/or with heat. High temperatures, exposure to light, radiation exposure, inhibitor depletion, accidental impurities, inert gas blanketing, and oxidizing agents may cause spontaneous polymerization reaction. Polymerization in large masses may cause excess exothermic reaction generating heat and also pressure. Closed containers may rupture or explode during runaway polymerization.
· **Conditions to avoid** No further relevant information available.

· **Incompatible materials:**
  High temperatures, localized heat sources (i.e. drum/band heaters & ovens), direct sunlight, UV radiation, inert gas blanketing, inert gas, oxygen scavangers, free radical initiators, strong acids, strong bases, strong oxidizers, amines, and mercaptans.

· **Hazardous decomposition products:**
  Acrid smoke-fumes/carbon monoxide/carbon dioxide/nitrogen oxides, unknown hydrocarbons, and perhaps other toxic vapors may be released during a fire involving this product.

**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.
  · **Sensitization:** 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)**
    None of the ingredients is listed.
  · **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.
  · **Bioaccumulative potential** No further relevant information available.
  · **Mobility in soil** No further relevant information available.
  · **Ecotoxical effects:**
    · **Remark:** Toxic for fish
  · **Additional ecological information:**
    · **General notes:**
      Water hazard class 2 (Self-assessment): hazardous for water
      Do not allow product to reach ground water, water course or sewage system.
      Danger to drinking water if even small quantities leak into the ground.
      Also poisonous for fish and plankton in water bodies.
      Toxic for aquatic organisms
  · **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.

- **Uncleaned packagings**:
  - **Recommendation:**
    - Disposal must be made according to official regulations.
    - Dispose of in accordance to all local, state, and/or national regulation.

### 14 Transport information

<table>
<thead>
<tr>
<th>Field</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>UN-Number</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>DOT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ADR, IMDG, IATA</strong></td>
<td>3082</td>
</tr>
<tr>
<td><strong>UN proper shipping name</strong></td>
<td>Not Applicable</td>
</tr>
<tr>
<td><strong>DOT</strong></td>
<td></td>
</tr>
<tr>
<td><strong>ADR</strong></td>
<td>3082</td>
</tr>
<tr>
<td><strong>IMDG, IATA</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Transport hazard class(es)</strong></td>
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</tr>
<tr>
<td><strong>DOT</strong></td>
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</tr>
<tr>
<td><strong>Class</strong></td>
<td></td>
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<tr>
<td><strong>ADR, IMDG, IATA</strong></td>
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</tr>
<tr>
<td><strong>Class</strong></td>
<td>9</td>
</tr>
<tr>
<td><strong>Label</strong></td>
<td>9 Miscellaneous dangerous substances and articles</td>
</tr>
<tr>
<td><strong>Packing group</strong></td>
<td>Not Applicable</td>
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<tr>
<td><strong>DOT</strong></td>
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<tr>
<td><strong>ADR, IMDG, IATA</strong></td>
<td>III</td>
</tr>
<tr>
<td><strong>Environmental hazards:</strong></td>
<td>Product contains environmentally hazardous substances: reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)</td>
</tr>
<tr>
<td><strong>Marine pollutant:</strong></td>
<td>Yes</td>
</tr>
<tr>
<td><strong>Special marking (ADR):</strong></td>
<td>Symbol (fish and tree)</td>
</tr>
<tr>
<td><strong>Special marking (IATA):</strong></td>
<td>Symbol (fish and tree)</td>
</tr>
<tr>
<td><strong>Special precautions for user</strong></td>
<td>Warning: Miscellaneous dangerous substances and articles</td>
</tr>
<tr>
<td><strong>Danger code (Kemler):</strong></td>
<td>90</td>
</tr>
<tr>
<td><strong>EMS Number:</strong></td>
<td>F-A,S-F</td>
</tr>
</tbody>
</table>
Trade name: 60-7170RCL

- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code: Not applicable.
- Transport/Additional information:
  - DOT: Not regulated.
  - Remarks: Not regulated.
- UN "Model Regulation": UN3082, ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S., 9, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
    - Section 355 (extremely hazardous substances): None of the ingredient is listed.
    - Section 313 (Specific toxic chemical listings): None of the ingredients is listed.
  - TSCA (Toxic Substances Control Act): All ingredients are listed.
  - Proposition 65
    - Chemicals known to cause cancer: None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for females: None of the ingredients is listed.
    - Chemicals known to cause reproductive toxicity for males: None of the ingredients is listed.
    - Chemicals known to cause developmental toxicity: None of the ingredients is listed.
  - Cancerogenity categories
    - EPA (Environmental Protection Agency): None of the ingredients is listed.
    - TLV (Threshold Limit Value established by ACGIH): None of the ingredients is listed.
    - NIOSH-Ca (National Institute for Occupational Safety and Health): None of the ingredients is listed.
  - GHS label elements: The product is classified and labeled according to the Globally Harmonized System (GHS).
    - Hazard pictograms: GHS07
    - Signal word: Warning
    - Hazard-determining components of labeling:
      reaction product: bisphenol-A-(epichlorhydrin) epoxy resin (number average molecular weight ≤ 700)
      Mixed triarylsulphonium hexafluoroantimonate salt
    - Hazard statements
      Causes skin irritation.
      Causes serious eye irritation.
      May cause an allergic skin reaction.
贸易名称: 60-7170RCL

- 预防措施
  - 如需医疗建议，请携带产品容器或标签。
  - 请勿让儿童接触。
  - 使用前阅读标签。
  - 避免吸入灰尘/烟雾/气体/雾气/蒸发。
  - 需要时佩戴防护手套。
  - 需要时佩戴眼睛保护/面部保护。
  - 洗手后彻底清洗。
  - 受污染的工作衣物不得离开工作场所。
  - 如果在眼睛中：谨慎用大量水冲洗几分钟。如果存在并容易取出，取下接触镜片，继续冲洗。
  - 特定治疗（见本标签）。
  - 受污染的衣物必须清洗后方可再使用。
  - 如果皮肤刺激或皮疹发生：寻求医疗建议/关注。
  - 如果眼刺激持续：寻求医疗建议/关注。
  - 如果发生皮肤刺激：用大量水冲洗。
  - 取下受污染的衣物并清洗后方可再使用。
  - 按当地/区域/国家/国际法规处置内容/容器。

- 化学安全评估
  - 化学安全评估尚未进行。

第16章 其他信息

- 本信息基于我们目前的知识。然而，这不构成对任何特定产品特征的保证，也不构成法律有效的合同关系。所提供的信息以及其中的建议仅适用于我们的产品，并不与其他产品结合使用。这些基于我们的研究和来自其他可靠来源的数据，并且相信它们是准确的。无准确性保证。使用任何产品之前，用户有责任验证这些数据，以确定产品是否适合其目的。

- 部门发布SDS：产品安全部门。
- 联系人：Paul C. Harrington
- 制备日期/最后修订：04/29/2015 / -

- 缩写和缩略语：
  - RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)
  - IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  - ICAO: International Civil Aviation Organisation
  - ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
  - 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)
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  - Skin Sens. 1: Sensitisation - Skin, Hazard Category 1