1 Identification

- **Product identifier**
  - **CRL Catalog Numbers:** GN200A, GN201B
  - **Article number:** 13102
- **Relevant identified uses of the substance or mixture.**
  - Adhesive
  - Sealant

- **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 Phone Number: 574-246-5000

- **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**
    Repr. 2 H361 Suspected of damaging fertility or the unborn child.
    STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.
    Asp. Tox. 1 H304 May be fatal if swallowed and enters airways.

- **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.
  - Suspected of damaging fertility or the unborn child.
  - May cause damage to organs through prolonged or repeated exposure.
  - May be fatal if swallowed and enters airways.
**Precautionary statements**

Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment.
Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protection clothing/eye protection/face protection.
If swallowed: Immediately call a poison center/doctor.
Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If exposed or concerned: Get medical advice/attention.
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.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

- **NFPA ratings (scale 0 - 4)**
  - Health = 1
  - Fire = 3
  - Reactivity = 0

- **HMIS-ratings (scale 0 - 4)**
  - Health = 1
  - Fire = 3
  - Physical Hazard = 0

**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>1332-58-7 Kaolin</td>
<td>25-50%</td>
</tr>
<tr>
<td>64742-49-0 Naphtha (petroleum), hydrotreated light</td>
<td>5-20%</td>
</tr>
<tr>
<td>64742-47-8 Distillates (petroleum), hydrotreated light</td>
<td>2.5-10%</td>
</tr>
<tr>
<td>108-88-3 toluene</td>
<td>2.5-10%</td>
</tr>
</tbody>
</table>
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.
- 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 Fire-fighting 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.
- Advice for firefighters
  Firefighters use standard protective equipment including flame retardant coat, helmet with face shield, gloves, rubber boots, and in enclosed spaces, SCBA.
- 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.
- Protective Action Criteria for Chemicals
  - PAC-1:
    108-88-3 toluene 67 ppm
  - PAC-2:
    108-88-3 toluene 560 ppm
  - PAC-3:
    108-88-3 toluene 3700* ppm

(Contd. on page 4)
**7 Handling and storage**

- **Handling:**
  - **Precautions for safe handling**
    Ensure good ventilation/exhaustion at the workplace.
    Open and handle receptacle with care.
    Prevent formation of aerosols.
  - **Information about protection against explosions and fires:**
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Keep container closed when not in use.
- **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.
      Store as flammable liquid.
    - **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:** No further data; see item 7.
- **Control parameters**
  - **Components with limit values that require monitoring at the workplace:**
    The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit.
    At this time, the other constituents have no known exposure limits.

<table>
<thead>
<tr>
<th>1332-58-7 Kaolin</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong> Long-term value: 15* 5** mg/m³</td>
</tr>
<tr>
<td>*total dust **respirable fraction</td>
</tr>
<tr>
<td><strong>REL</strong> Long-term value: 10* 5** mg/m³</td>
</tr>
<tr>
<td>*total dust **respirable fraction</td>
</tr>
<tr>
<td><strong>TLV</strong> Long-term value: 2* mg/m³</td>
</tr>
<tr>
<td>E; as respirable fraction</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>108-88-3 toluene</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>PEL</strong> Long-term value: 200 ppm</td>
</tr>
<tr>
<td>Ceiling limit value: 300; 500* ppm</td>
</tr>
<tr>
<td>*10-min peak per 8-hr shift</td>
</tr>
<tr>
<td><strong>REL</strong> Short-term value: 560 mg/m³, 150 ppm</td>
</tr>
<tr>
<td>Long-term value: 375 mg/m³, 100 ppm</td>
</tr>
<tr>
<td><strong>TLV</strong> Long-term value: 75 mg/m³, 20 ppm</td>
</tr>
<tr>
<td><strong>BEI</strong></td>
</tr>
</tbody>
</table>

* (Contd. on page 5)
· **Ingredients with biological limit values:**

<table>
<thead>
<tr>
<th>108-88-3 toluene</th>
</tr>
</thead>
<tbody>
<tr>
<td>BEI 0.02 mg/L</td>
</tr>
<tr>
<td>Medium: blood</td>
</tr>
<tr>
<td>Time: prior to last shift of workweek</td>
</tr>
<tr>
<td>Parameter: Toluene</td>
</tr>
<tr>
<td>0.03 mg/L</td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Time: end of shift</td>
</tr>
<tr>
<td>Parameter: Toluene</td>
</tr>
<tr>
<td>0.3 mg/g creatinine</td>
</tr>
<tr>
<td>Medium: urine</td>
</tr>
<tr>
<td>Time: end of shift</td>
</tr>
<tr>
<td>Parameter: o-Cresol with hydrolysis (background)</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.
  
  Store protective clothing separately.

· **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

· **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.

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

· **Body protection:** Protective work clothing
9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
- Change in condition
  - Melting point: Undetermined.
  - Boiling point: 98 °C (208.4 °F)
- Flash point: 4 °C (39.2 °F)
- Ignition temperature: 215 °C (419 °F)
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
- Flammable limits:
  - Lower: 1.1 Vol %
  - Upper: 7 Vol %
- Vapor pressure at 20 °C (68 °F): 48 hPa (36 mm Hg)
- Specific gravity at 20 °C (68 °F): 1.102 g/cm³ (9.19619 lbs/gal)
- Relative density: Not determined.
- Vapor density: Not determined.
- Evaporation rate: Not determined
- Solubility in / Miscibility with
  - Water: Not miscible or difficult to mix.
- Viscosity:
  - Dynamic: Not determined.
  - Kinematic: Not determined.
- Solvent content:
  - Organic solvents: Not determined
  - Solids content: 65. %
- Other information
  - VOC = 376G/L (3.14 LBS/GAL)
  - SCAQMD = 376 G/L
  - WEIGHT PER GALLON = 9.06 LBS/GAL

10 Stability and reactivity

- Reactivity: No further relevant information available.
- 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.
- Incompatible materials: Reacts with oxidizing agents.
- Hazardous decomposition products:
  - Oxides of carbon and nitrogen.
11 Toxicological information

- Information on toxicological effects
- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - **108-88-3 toluene**
      | Route       | Value       |
      |-------------|-------------|
      | Oral        | LD50 5,000 mg/kg (rat) |
      | Dermal      | LD50 12,124 mg/kg (rabbit) |
      | Inhalative  | LC50/4 h 5,320 mg/l (mouse) |

- Primary irritant effect:
  - on the skin: Skin irritant.
  - on the eye:
    - May irritate the eye.
    - Vapors may be irritating to the eyes.
- Sensitization: No sensitizing effects known.
- 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)
    - 9003-55-8 1,3-butadiene-styrene block polymer 3
    - 108-88-3 toluene 3
  - 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.
- Ecotaxical effects:
- Remark: Toxic for fish
- Additional ecological information:
- General notes: At present there are no ecotoxicological assessments.
- 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 be specially treated adhering to official regulations.

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

### 14 Transport information

- **UN-Number**
  - **DOT, IMDG, IATA:** UN1133

- **UN proper shipping name**
  - **DOT:** Adhesives
  - **IMDG, IATA:** ADHESIVES

- **Transport hazard class(es)**
  - **DOT**
    - **Class:** 3 Flammable liquids
    - **Label:** 3
  - **IMDG, IATA**
    - **Class:** 3 Flammable liquids
    - **Label:** 3

- **Packing group**
  - **DOT, IMDG, IATA:** II

- **Environmental hazards:**
  - Not applicable.

- **Special precautions for user**
  - **Warning:** Flammable liquids
  - **Danger code (Kemler):** 33
  - **EMS Number:** F-E,S-D
  - **Stowage Category:** B

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

- **UN "Model Regulation":**
  - **USA:** UN 1133 ADHESIVES, 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):**
      - 108-88-3 toluene
    - **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 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:**
      - 108-88-3 toluene
  - **(DSL) Canada Domestic Substance List**
    All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.
  - **New Jersey Right-to-Know List:**
    - 1332-58-7 Kaolin
    - 108-88-3 toluene
  - **New Jersey Special Hazardous Substance List:**
    - 108-88-3 toluene
  - **Pennsylvania Right-to-Know List:**
    - 1332-58-7 Kaolin
    - 108-88-3 toluene
  - **Pennsylvania Special Hazardous Substance List:**
    - 108-88-3 toluene
  - **Cancerogenity categories**
    - **EPA (Environmental Protection Agency)**
      - 108-88-3 toluene
    - **TLV (Threshold Limit Value established by ACGIH)**
      - 1332-58-7 Kaolin
      - 108-88-3 toluene
    - **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.
16 Other information

- **Department issuing SDS**: Environment protection department.
- **Creation Date**: 05/02/2018
- **Date of preparation / last revision**: 05/02/2018 / 2
- **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 Organisation
  - 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)
  - LC50: Lethal concentration, 50 percent
  - LD50: Lethal dose, 50 percent
  - PBT: Persistent, Bioaccumulative and Toxic
  - vPvB: very Persistent and very Bioaccumulative
  - NIOSH: National Institute for Occupational Safety
  - OSHA: Occupational Safety & Health
  - TLV: Threshold Limit Value
  - PEL: Permissible Exposure Limit
  - REL: Recommended Exposure Limit
  - BEI: Biological Exposure Limit
  - Flam. Liq. 2: Flammable liquids – Category 2
  - Repr. 2: Reproductive toxicity – Category 2
  - STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2
  - Asp. Tox. 1: Aspiration hazard – Category 1