1 Identification

- **Product identifier**
  - **Trade name:** OmniCoat
  - **Product number:** G112850
  - **Application of the substance / the mixture** Adhesion promoter

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:** Kayaku Advanced Materials
    - 200 Flanders Road
    - Westborough, MA 01581
    - Tel: (617) 965-5511
    - Fax: (617) 965-5818
  - **Information department:**
    - Product Safety
    - Email: productsafety@kayakuAM.com
  - **Emergency telephone number:**
    - Kayaku Advanced Materials: 617-965-5511
    - Chemtrec USA Emergency: 800-424-9300
    - Chemtrec International Emergency: 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - GHS02 Flame
    - Flam. Liq. 3 H226 Flammable liquid and vapor.
  - GHS07
    - Skin Irrit. 2 H315 Causes skin irritation.
    - Eye Irrit. 2A H319 Causes serious eye irritation.

- **Label elements**
  - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    - GHS02, GHS07

- **Signal word** Warning

  - **Hazard-determining components of labeling:**
    - Cyclopentanone
    - 1-methoxy-2-propanol
  - **Hazard statements**
    - H226 Flammable liquid and vapor.
    - H315 Causes skin irritation.
    - H319 Causes serious eye irritation.
· Precautionary statements

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing dust/fume/gas/mist/vapors/spray
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P302+P352 If on skin: Wash with plenty of soap and water.
P304+P341 If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
P305+P351+P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use for extinction: Alcohol resistant foam.
P370+P378 In case of fire: Use for extinction: Fire-extinguishing powder.
P370+P378 In case of fire: Use for extinction: Carbon dioxide.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Classification system:

· NFPA ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

· HMIS-ratings (scale 0 - 4)

<table>
<thead>
<tr>
<th>Health</th>
<th>Fire</th>
<th>Reactivity</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>3</td>
<td>0</td>
</tr>
</tbody>
</table>

· Other hazards

· 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>Substance</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>120-92-3</td>
<td>Cyclopentanone</td>
<td>70-90%</td>
</tr>
<tr>
<td>107-98-2</td>
<td>1-methoxy-2-propanol</td>
<td>10-20%</td>
</tr>
<tr>
<td></td>
<td>Proprietary polymer</td>
<td>&lt;1%</td>
</tr>
</tbody>
</table>

(Contd. on page 3)
4 First-aid measures

- Description of first aid measures
  - General information: Immediately remove any clothing soiled by the product.
  - After inhalation:
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
  - After skin contact:
    Immediately wash with water and soap and rinse thoroughly.
    If skin irritation continues, consult a doctor.
  - After eye contact:
    Wash eyes immediately with a large amount of water or normal saline, occasionally lifting upper and lower eye lids until no evidence of chemical remains (about 20 minutes). Remove contact lenses if present and easy to remove. Seek immediate medical attention.
  - After swallowing:
    Do not induce vomiting unless instructed to do so by a physician. Wash out mouth with water and keep person at rest. Seek immediate medical attention.
  - 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: Treat symptomatically.

5 Fire-fighting measures

- Extinguishing media
  - Suitable extinguishing agents:
    Alcohol resistant foam
    Fire-extinguishing powder
    Carbon dioxide
  - For safety reasons unsuitable extinguishing agents:
    Water with full jet
    Water
  - Special hazards arising from the substance or mixture: No further relevant information available.
  - Advice for firefighters
  - Protective equipment: Wear SCBA.

6 Accidental release measures

- Personal precautions, protective equipment and emergency procedures
  - Wear protective equipment. Keep unprotected persons away.
  - Ensure adequate ventilation
  - Keep away from ignition sources
  - 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).
    Ensure adequate ventilation.
    Do not flush with water or aqueous cleansing agents
  - Reference to other sections
    See Section 7 for information on safe handling.
    See Section 8 for information on personal protection equipment.
7 Handling and storage

· Handling:
  · Precautions for safe handling
    Ensure good ventilation/exhaust at the workplace.
    Keep receptacles tightly sealed.
    Store in cool, dry place in tightly closed containers.
    Prevent formation of aerosols.
  · Information about protection against explosions and fires:
    Keep ignition sources away - Do not smoke.
    Protect against electrostatic charges.
    Use explosion-proof apparatus / fittings and spark-proof tools.
  · Conditions for safe storage, including any incompatibilities
  · Storage:
    · Requirements to be met by storerooms and containers: Store in a cool location.
    · Information about storage in one common storage facility:
      Do not store together with oxidizing and acidic materials.
  · Further information about storage conditions:
    Keep container well-sealed in cool, dry location.
    Protect from heat and direct sunlight.
    Avoid contact with air / oxygen (formation of peroxide).
    Store under lock and key and with access restricted to technical experts or their assistants only.
  · 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

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>REL</th>
<th>Short-term value: 540 mg/m³, 150 ppm</th>
<th>Long-term value: 360 mg/m³, 100 ppm</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2</td>
<td>TLV</td>
<td>Short-term value: 553 mg/m³, 150 ppm</td>
<td>Long-term value: 369 mg/m³, 100 ppm</td>
</tr>
</tbody>
</table>

· 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 food and beverages.
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
      Avoid contact with the eyes and skin.
      Do not inhale gases / fumes / aerosols.
  · Respiratory equipment:
    In case of low exposure, use cartridge respirator. In case of intensive or longer exposure, use SCBA.
Trade name: OmniCoat

- **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
  - **Penetration time of glove material** Contact glove manufacture for break-through time.
  - **Eye protection:**
    
    Tightly sealed goggles

### 9 Physical and chemical properties

<table>
<thead>
<tr>
<th>· <strong>Information on basic physical and chemical properties</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>· <strong>General Information</strong></td>
</tr>
<tr>
<td>· <strong>Appearance:</strong></td>
</tr>
<tr>
<td>· Form: Liquid</td>
</tr>
<tr>
<td>· Color: Clear to light yellow</td>
</tr>
<tr>
<td>· Odor: Slightly sweet</td>
</tr>
<tr>
<td>· Odor threshold: Not determined.</td>
</tr>
<tr>
<td>· <strong>pH-value:</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Change in condition</strong></td>
</tr>
<tr>
<td>· Melting point/Melting range: Undetermined.</td>
</tr>
<tr>
<td>· Boiling point/Boiling range: 120 °C (248 °F)</td>
</tr>
<tr>
<td>· <strong>Flash point:</strong> 30 °C (86 °F)</td>
</tr>
<tr>
<td>· <strong>Flammability (solid, gaseous):</strong> Not applicable.</td>
</tr>
<tr>
<td>· <strong>Ignition temperature:</strong> 270 °C (518 °F)</td>
</tr>
<tr>
<td>· <strong>Decomposition temperature:</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Auto igniting:</strong> Product is not selfigniting.</td>
</tr>
<tr>
<td>· <strong>Danger of explosion:</strong> Product is not explosive.</td>
</tr>
<tr>
<td>· <strong>Explosion limits:</strong> 2.3 Vol %</td>
</tr>
<tr>
<td>· Lower:</td>
</tr>
<tr>
<td>· Upper: Not determined.</td>
</tr>
<tr>
<td>· <strong>Vapor pressure at 20 °C (68 °F): 12 hPa (9 mm Hg)</strong></td>
</tr>
<tr>
<td>· <strong>Density:</strong> See other information</td>
</tr>
<tr>
<td>· <strong>Relative density</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Vapor density</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Evaporation rate</strong> Not determined.</td>
</tr>
<tr>
<td>· <strong>Solubility in / Miscibility with</strong> Water: Partly miscible.</td>
</tr>
</tbody>
</table>
10 Stability and reactivity

· Reactivity: No further relevant information available.
· Chemical stability: Stable
· Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
· Possibility of hazardous reactions: No dangerous reactions known.
· Conditions to avoid: No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: Carbon monoxide and carbon dioxide
  Nitrogen oxides (NOx)

11 Toxicological information

· Information on toxicological effects
· Acute toxicity:
  · LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>107-98-2 1-methoxy-2-propanol</th>
<th>120-92-3 Cyclopentanone</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td>LD50</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50</td>
</tr>
<tr>
<td>Inhalative</td>
<td>LC50/4 h</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
  · on the skin: Irritant to skin and mucous membranes.
  · on the eye: Irritating effect.
  · 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)
    None of the ingredients are listed.
  · NTP (National Toxicology Program)
    None of the ingredients are listed.
12 Ecological information

· Toxicity

· Aquatic toxicity:

<table>
<thead>
<tr>
<th>Compound</th>
<th>EC50/96 hr</th>
<th>LC50/96 h</th>
</tr>
</thead>
<tbody>
<tr>
<td>107-98-2 1-methoxy-2-propanol</td>
<td>23300 mg/l (daphnia magna)</td>
<td>20800 mg/l (Pimephales promelas)</td>
</tr>
<tr>
<td></td>
<td>&gt;1000 mg/l (green algae)</td>
<td></td>
</tr>
<tr>
<td>120-92-3 Cyclopentanone</td>
<td>100 mg/l (daphnia magna)</td>
<td>&gt;100 mg/l (fish)</td>
</tr>
<tr>
<td></td>
<td>&gt;100 mg/l (scenedesmus subspicatus)</td>
<td></td>
</tr>
</tbody>
</table>

· 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 as regular garbage/trash. Do not allow product to reach sewage system.
Disposal must be made in accordance with Federal, State, and Local regulations.

· Uncleaned packagings:

· Recommendation: Disposal must be made in accordance with Federal, State, and Local regulations.

14 Transport information

· UN-Number

· DOT, ADR, IMDG, IATA UN1866

· UN proper shipping name

· DOT, ADR Resin solution

· IMDG, IATA RESIN SOLUTION
Trade name: OmniCoat

- **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: III

- **Environmental hazards:**
  - Marine pollutant: No

- **Special precautions for user**
  - Warning: Flammable liquids

- **Danger code (Kemler):**
  - 33

- **EMS Number:**
  - F-E,S-E

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

- **UN "Model Regulation":**
  - UN1866, Resin solution, 3, 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 ingredients are listed.
    - Section 313 (Specific toxic chemical listings):
      - None of the ingredients is listed.
    - TSCA (Toxic Substances Control Act):
      - All ingredients are listed or comply with TSCA regulations.
    - Proposition 65
      - Chemicals known to cause cancer:
        - None of the ingredients are listed.
      - Chemicals known to cause reproductive toxicity for females:
        - None of the ingredients are listed.
      - Chemicals known to cause reproductive toxicity for males:
        - None of the ingredients are listed.
### Safety Data Sheet

**acc. to OSHA HCS**

*Printing date 09/09/2019 Reviewed on 09/09/2019*

**Trade name: OmniCoat**

(Contd. of page 8)

#### Chemicals known to cause developmental toxicity:

None of the ingredients are listed.

#### Carcinogenic categories

**EPA (Environmental Protection Agency)**

None of the ingredients are listed.

**TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients are listed.

**NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients are listed.

#### Massachusetts State Right To Know List

| 120-92-3 | Cyclopentanone |
| 107-98-2 | 1-methoxy-2-propanol |

#### New Jersey State Right To Know List

| 120-92-3 | Cyclopentanone |
| 107-98-2 | 1-methoxy-2-propanol |

#### Pennsylvania Hazardous Substances List

| 120-92-3 | Cyclopentanone |
| 107-98-2 | 1-methoxy-2-propanol |

#### California SCAQMD Rule 443.1 VOC's: 950 g/L

#### GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

#### Hazard pictograms

- GHS02
- GHS07

#### Signal word Warning

#### Hazard-determining components of labeling:

- Cyclopentanone
- 1-methoxy-2-propanol

#### Hazard statements

- H226 Flammable liquid and vapor.
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.

#### Precautionary statements

- **P210** Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
- **P261** Avoid breathing dust/fume/gas/mist/vapors/spray
- **P280** Wear protective gloves/protective clothing/eye protection/face protection.
- **P301+P310** If swallowed: Immediately call a poison center/doctor.
- **P302+P352** If on skin: Wash with plenty of soap and water.
- **P304+P341** If inhaled: If breathing is difficult, remove person to fresh air and keep comfortable for breathing.
- **P305+P351+P338** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

(Contd. on page 10)
49.4.8
P333+P313 If skin irritation or rash occurs: Get medical advice/attention.
P337+P313 If eye irritation persists: Get medical advice/attention.
P370+P378 In case of fire: Use for extinction: Alcohol resistant foam.
P370+P378 In case of fire: Use for extinction: Fire-extinguishing powder.
P370+P378 In case of fire: Use for extinction: Carbon dioxide.
P403+P235 Store in a well-ventilated place. Keep cool.
P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information
This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: Product safety department
· Contact: Tom Cole, EHS Manager (tcole@kayakuAM)

· Revision History:
The manufacturer's information in Section 1, the product hazard information in Section 2 and the component hazard information in Section 3 have been updated.

· Date of preparation / last revision 09/09/2019 / 7

· 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
  Flam. Liq. 3: Flammable liquids – Category 3
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation – Category 2A
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3