SECTION 1: IDENTIFICATION

Trade name: nora® ED 120
- Application of the substance / the mixture: Fiber-reinforced conductive acrylic adhesive
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
nora systems, Inc.
9 Northeastern Blvd.
Salem, NH 03079
Toll-Free: 800-332-NORA
- Information department: see Manufacturer/Supplier
- Emergency telephone number: 800-424-9300 CHEMTREC

SECTION 2: HAZARD(S) IDENTIFICATION

- Label elements
- GHS label elements Void
- Hazard pictograms Void
- Signal word Void
- Hazard statements Void
- NFPA ratings (scale 0 - 4)

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

Health = 1
Flammability = 0
Reactivity = 0
- Other hazards

NFPA Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.
NFPA is the National Fire Protection Association.
HMIS Rating Scale: 0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe.
HMIS®, the Hazardous Materials Identification System, is a registered mark of the National Paint and Coatings Association (NPCA).
- Results of PBT and vPvB assessment
  - PBT: Not applicable.
  - vPvB: Not applicable.
nora® ED 120
Safety Data Sheet
acc. to OSHA HCS

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS
- Chemical characterization: Mixtures
- Description:
Dispersion Adhesive. Solvent-free, contains no liquid, organic compounds with a boiling-point < 200 °C (< 392 °F) or other hazardous ingredients per current OSHA regulations.

| CAS: 14808-60-7 | Quartz (crystalline silica) | Carc. 1A, H350; STOT RE 1, H372 | 1.0% |

- Hazardous ingredients:
- Additional information:
This product contains crystalline silica (quartz sand) which has been classified by IARC as a Group 1 carcinogen (human carcinogen). Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. This product is used in liquid form only and therefore does not pose a dust hazard / carcinogen hazard during its use. However, respirable silica may be generated from working procedures such as grinding e.g. In general, inhalation of silica dust should be avoided. Therefore, for your own safety wear a suitable NIOSH-approved respirator in all occasions when handling of the product generates dust.

The exact percentages of the ingredients have been withheld by the manufacturer as trade secrets. For the wording of the listed hazard phrases refer to section 16.

SECTION 4: FIRST-AID MEASURES
- Description of first aid measures
- General information: No special measures required.
- After inhalation: Supply fresh air.
- After skin contact: Immediately wash with water and soap and rinse thoroughly.
- After eye contact:
  If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a doctor.
- 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.

SECTION 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.
- For safety reasons unsuitable extinguishing agents: Water with full jet
- Special hazards arising from the substance or mixture No further relevant information available.

- Advice for firefighters
- Protective equipment: No special measures required.
- Additional information: Flash point: > 100 °C (> 212°F).

SECTION 6: ACCIDENTAL RELEASE MEASURES
- Personal precautions, protective equipment and emergency procedures Not required.
- Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- Methods and material for containment and cleaning up:

12/06/2017 EN (English US) 2/8
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

- 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

<table>
<thead>
<tr>
<th>PAC</th>
<th>CAS Number</th>
<th>Substance</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAC-1</td>
<td>14808-60-7</td>
<td>Quartz (crystalline silica)</td>
<td>0.075 mg/m³</td>
</tr>
<tr>
<td>PAC-2</td>
<td>14808-60-7</td>
<td>Quartz (crystalline silica)</td>
<td>33 mg/m³</td>
</tr>
<tr>
<td>PAC-3</td>
<td>14808-60-7</td>
<td>Quartz (crystalline silica)</td>
<td>200 mg/m³</td>
</tr>
</tbody>
</table>

**SECTION 7: HANDLING AND STORAGE**

- Handling:
  - Precautions for safe handling
  
  Keep out of the reach of children.
  
  Avoid contact with the eyes and skin.
  
  Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

- 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: Not required.
  - Further information about storage conditions: Protect from frost.
  - Specific end use(s) No further relevant information available.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

- Additional information about design of technical systems: No further data; see item 7.

- Control parameters

<table>
<thead>
<tr>
<th>Components with limit values that require monitoring at the workplace:</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 14808-60-7 Quartz (crystalline silica)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>PEL</th>
<th>REL TLV</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>see Quartz listing</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 0.05* mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>*respirable dust; See Pocket Guide App. A</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Long-term value: 0.025* mg/m³</td>
</tr>
</tbody>
</table>

- Exposure controls

- Personal protective equipment:

  - General protective and hygienic measures:

    The usual precautionary measures for handling chemicals should be followed.
    
    Avoid contact with the eyes and skin.
    
    Keep away from foodstuffs, beverages and feed. Wash hands before breaks and at the end of work.

- Respiratory protection: Not required.
- Protection of hands:
  PVC or PE gloves
- Material of gloves PVC or PE gloves
- 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

### SECTION 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: Form</td>
<td>Pasty</td>
</tr>
<tr>
<td>Appearance: Color</td>
<td>Grey</td>
</tr>
<tr>
<td>Odor</td>
<td>Weak, characteristic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>Not determined.</td>
</tr>
<tr>
<td>pH-value at 20 °C (68 °F)</td>
<td>7</td>
</tr>
<tr>
<td>Change in condition</td>
<td></td>
</tr>
<tr>
<td>Melting point/Melting range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Boiling point/Boiling range</td>
<td>Undetermined.</td>
</tr>
<tr>
<td>Flash point</td>
<td>&gt; 100 °C (&gt; 212 °F)</td>
</tr>
<tr>
<td>Flammability (solid, gaseous)</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td></td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto igniting</td>
<td>Product is not self igniting.</td>
</tr>
<tr>
<td>Danger of explosion:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C (68 °F):</td>
<td>1.3 g/cm³ (10.849 lbs/gal)</td>
</tr>
<tr>
<td>Relative density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapor density</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with Water</td>
<td>Dispersible.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not determined.</td>
</tr>
</tbody>
</table>
Viscosity:
Dynamic at 20 °C (68 °F): 45000 mPas
Kinematic: Not determined.
Other information No further relevant information available.

SECTION 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 No further relevant information available.
· Incompatible materials: No further relevant information available.
· Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: TOXICOLOGICAL INFORMATION
· Information on toxicological effects
· Acute toxicity:
· Specific symptoms in biological assay:
· Primary route(s) of entry: Skin contact, eye contact, ingestion.
· Primary irritant effect:
· on the skin: No irritant effect.
· on the eye: No irritant effect.
· Sensitization: No sensitizing effects known.
· Subacute to chronic toxicity:

This product contains crystalline silica (quartz sand) which has been classified by IARC as a Group 1 carcinogen (human carcinogen). Evidence is based on the chronic and long-term exposure workers have had to respirable sized crystalline silica dust particles. This product is used in liquid form only and therefore does not pose a dust hazard / carcinogen hazard during its use. However, respirable silica may be generated from working procedures such as grinding e.g. In general, inhalation of silica dust should be avoided. Therefore, for your own safety wear a suitable NIOSH-approved respirator in all occasions when handling of the product generates dust.

· Additional toxicological information:
When used and handled according to specifications, the product does not have any harmful effects according to our experience and the information provided to us.
· Carcinogenic categories

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
<th>NTP (National Toxicology Program)</th>
<th>OSHA-Ca (Occupational Safety &amp; Health Administration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS: 14808-60-7 Quartz (crystalline silica)</td>
<td>CAS: 14808-60-7 Quartz (crystalline silica)</td>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>
SECTION 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: Do not allow product 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.

SECTION 13: DISPOSAL CONSIDERATIONS

- Waste treatment methods
- Recommendation:
  Do not allow product to reach sewage system.
  Let product residues harden in open container, then dispose of as construction waste.
- Uncleaned packaging:
- Recommendation:
  Disposal must be made according to official regulations.
  Empty contaminated packaging thoroughly. They may be recycled after thorough and proper cleaning.
- Recommended cleansing agent: Water, if necessary with cleansing agents.

SECTION 14: TRANSPORT INFORMATION

| DOT, ADR, ADN, IMDG, IATA | Void |
| DOT, ADR, ADN, IMDG, IATA | Void |
| DOT, ADN, IMDG, IATA | Void |
| Class | Void |
| DOT, IMDG, IATA | Void |

- Environmental hazards:
  - Marine pollutant: No
- Special precautions for user: Not applicable.
- Transport/Additional information: Not regulated as hazardous material according to the above specifications.
- UN "Model Regulation": Void

SECTION 15: REGULATORY INFORMATION

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- SARA (Superfund Amendments and Reauthorization Act)
- EPCRA Section 302 (Extremely Hazardous Substances):
  None of the ingredient is listed.
**SARA Title III Section 313 (Toxic Release Inventory - TRI):**

None of the ingredients is listed.

**TSCA (Toxic Substances Control Act):**

All ingredients are listed.

**Proposition 65 (California):**

- Chemicals known to cause cancer:
  - CAS: 14808-60-7 Quartz (crystalline silica)
  - 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.

**Carcinogenicity categories**

- EPA (Environmental Protection Agency)
  - None of the ingredients is listed.

- TLV (Threshold Limit Value established by ACGIH)
  - CAS: 14808-60-7 Quartz (crystalline silica) A2

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

- CAS: 14808-60-7 Quartz (crystalline silica)

**GHS label elements Void**

- Hazard pictograms Void
- Signal word Void
- Hazard statements Void

**SECTION 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.

- Contact: see Manufacturer/Supplier
- Date of preparation / last revision: 12/06/2017
- 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) 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
Carc. 1A: Carcinogenicity – Category 1A
STOT RE 1: Specific target organ toxicity (repeated exposure) – Category 1