1 Identification

- **Product identifier**
- **Trade name:** H2
- **Application of the substance / the mixture** Cyanoacrylate Adhesive

- **Details of the supplier of the safety data sheet**
  **Manufacturer/Supplier:**
  Cyberbond LLC
  401 North Raddant Road
  Batavia, IL 60510
  USA
  sales@cyberbond1.com
  630-761-8900

- **Information department:** Product safety department
- **Emergency telephone number:**
  International-1-(352)-323-3500
  US & Canada-1-(800)-535-5053

2 Hazard(s) identification

- **Classification of the substance or mixture**

  ![GHS07](image)

  Skin Irrit. 2  H315  Causes skin irritation.
  Eye Irrit. 2A H319  Causes serious eye irritation.
  STOT SE 3 H335  May cause respiratory irritation.

  H227  Combustible liquid.

- **Classification according to Directive 67/548/EEC or Directive 1999/45/EC**

  **Irritant**
  Irritating to eyes, respiratory system and skin.

- **Information concerning particular hazards for human and environment:**
  The product has to be labeled due to the calculation procedure of international guidelines.

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

  ![GHS07](image)

- **Signal word** Warning

- **Hazard-determining components of labeling:**
  ethyl 2-cyanoacrylate

- **Hazard statements**
  Combustible liquid.
  Causes skin irritation.
  Causes serious eye irritation.
  May cause respiratory irritation.

(Contd. on page 2)
· **Precautionary statements**
  
  If medical advice is needed, have product container or label at hand.
  Keep out of reach of children.
  Read label before use.
  Keep away from flames and hot surfaces. – No smoking.
  Avoid breathing dust/fumes/gas/mist/vapors/spray.
  Wear protective gloves / eye protection / face protection.
  Wash thoroughly after handling.
  Use only outdoors or in a well-ventilated area.
  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).
  IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
  Call a poison center/doctor if you feel unwell.
  If skin irritation occurs: Get medical advice/attention.
  If eye irritation persists: Get medical advice/attention.
  In case of fire: Use for extinction: CO2, powder or water spray.
  If on skin: Wash with plenty of water.
  Take off contaminated clothing and wash it before reuse.
  Store locked up.
  Store in a well-ventilated place. Keep container tightly closed.
  Store in a well-ventilated place. Keep cool.
  Dispose of contents/container in accordance with local/regional/national/international regulations.

**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.

<table>
<thead>
<tr>
<th>Dangerous components:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>7085-85-0 ethyl 2-cyanoacrylate</td>
<td>50-100%</td>
</tr>
<tr>
<td>142-16-5 Bis(2-ethylhexyl) maleate</td>
<td>0.1-&lt;0.25%</td>
</tr>
<tr>
<td>123-31-9 1,4-dihydroxybenzene</td>
<td>&lt;0.1%</td>
</tr>
</tbody>
</table>

**4 First-aid measures**

- **Description of first aid measures**
  
  **After inhalation:** Supply fresh air; consult doctor in case of complaints.
  **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
  **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.
  **After swallowing:** Call a doctor immediately.

**Information for doctor:**

- **Most important symptoms and effects, both acute and delayed** Breathing difficulty
- **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.
  **For safety reasons unsuitable extinguishing agents:** Water with full jet
  **Special hazards arising from the substance or mixture** Nitrogen oxides (NOx)
  **Advice for firefighters**
  **Protective equipment:** Wear self-contained respiratory protective device.
6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**: Ensure adequate ventilation.
- **Environmental precautions**: Do not allow product to reach sewage system or any water course.
- **Methods and material for containment and cleaning up**: Allow to solidify. Pick up mechanically.
  - Ensure adequate ventilation.
  - Do not use cotton or natural fiber cloths for clean up.

**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

- **Handling**:
  - **Precautions for safe handling**: Store in cool, dry place in tightly closed receptacles.
  - Keep away from heat and direct sunlight.
  - Ensure good ventilation/exhaustion at the workplace.
  - **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 a cool location.
    - Store only in the original receptacle.
    - **Information about storage in one common storage facility**: Store away from oxidizing agents.
  - **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**:
    - **7085-85-0 ethyl 2-cyanoacrylate**
      - TLV Long-term value: 1 mg/m³, 0.2 ppm
  - **Additional information**: The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment**:
  - **General protective and hygienic measures**: The usual precautionary measures for handling chemicals should be followed.
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing.
  - Avoid contact with the eyes and skin.
  - **Breathing equipment**: Not necessary if room is well-ventilated.
  - **Protection of hands**: Impervious gloves

  The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
  Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
  **Material of gloves**: Nitrile rubber, NBR
  **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.
Trade name: H2

- Not suitable are gloves made of the following materials:
  - Cotton or natural fibers
  - PVC gloves
- Eye protection:
  - Safety glasses
  - Tightly sealed goggles
- Body protection: Protective work clothing

### 9 Physical and chemical properties

- Information on basic physical and chemical properties
- General Information
  - Appearance:
    - Form: Liquid
    - Color: Colorless
    - Odor: Characteristic
    - Odour threshold: Not determined.
    - pH-value: Not determined.
  - Change in condition
    - Melting point/Melting range: Undetermined.
    - Boiling point/Boiling range: > 150 °C (> 302 °F)
  - Flash point: 87 °C (189 °F)
  - Flammability (solid, gaseous): Not applicable.
  - Ignition temperature:
    - Decomposition temperature: Not determined.
    - Auto igniting: Product is not selfigniting.
    - Danger of explosion: Not determined.
  - Explosion limits:
    - Lower: Not determined.
    - Upper: Not determined.
  - Vapor pressure at 20 °C (68 °F): 0.27 hPa
  - Density at 20 °C (68 °F): 1.05 g/cm³ (8.762 lbs/gal)
  - Bulk density at 20 °C (68 °F): 1.05 kg/m³
  - Relative density: Not determined.
  - Vapour density: Not determined.
  - Evaporation rate: Not determined.
  - Solubility in / Miscibility with Water: Not miscible or difficult to mix.
  - Partition coefficient (n-octanol/water): Not determined.
  - Viscosity:
    - Dynamic: Not determined.
    - Kinematic: Not determined.
  - Solvent content:
    - Organic solvents: 0.0 %
  - 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 alcohols, amines, aqueous acids and alkalis.
    Reacts with water and acids.
  - Conditions to avoid: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: No dangerous decomposition products known.

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

<table>
<thead>
<tr>
<th>IARC (International Agency for Research on Cancer)</th>
<th>3</th>
</tr>
</thead>
<tbody>
<tr>
<td>123-31-9 1,4-dihydroxybenzene</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>NTP (National Toxicology Program)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>OSHA-Ca (Occupational Safety &amp; Health Administration)</th>
</tr>
</thead>
<tbody>
<tr>
<td>None of the ingredients is listed.</td>
</tr>
</tbody>
</table>

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.

- Uncleaned packagings:
  - Recommendation: Disposal must be made according to official regulations.
14 Transport information

- UN-Number
  - DOT NA1993
- ADN, IMDG, IATA Void
- UN proper shipping name
  - DOT
  - ADN, IMDG, IATA Void
- Transport hazard class(es)
  - DOT, ADN, IMDG, IATA Void
- Class
- Packing group
  - DOT III
- IMDG, IATA Void
- Environmental hazards:
- Marine pollutant: No
- Special precautions for user
  - Not applicable.
- Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
  - Not applicable.

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
  - Sara
- Section 355 (extremely hazardous substances):
  - 123-31-9 1,4-dihydroxybenzene
  - 79-11-8 chloroacetic acid
- Section 313 (Specific toxic chemical listings):
  - 123-31-9 1,4-dihydroxybenzene
  - 79-11-8 chloroacetic acid
- 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.
- Carcinogenic categories
  - EPA (Environmental Protection Agency)
    - 109-63-7 diethyl ether–boron trifluoride I (oral)
  - TLV (Threshold Limit Value established by ACGIH)
    - 123-31-9 1,4-dihydroxybenzene A3
Trade name: H2

79-11-8 | chloroacetic acid

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:**
  ethyl 2-cyanoacrylate

**Hazard statements**
- Combustible liquid.
- Causes skin irritation.
- Causes serious eye irritation.
- May cause respiratory irritation.

**Precautionary statements**
- If medical advice is needed, have product container or label at hand.
- Keep out of reach of children.
- Read label before use.
- Keep away from flames and hot surfaces. – No smoking.
- Avoid breathing dust/fume/gas/mist/vapors/spray
- Wear protective gloves / eye protection / face protection.
- Wear protective gloves.
- Wear eye protection / face protection.
- Wash thoroughly after handling.
- Use only outdoors or in a well-ventilated area.
- If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- If medical advice is needed, have product container or label at hand.
- If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- Call a poison center/doctor if you feel unwell.
- In case of fire: Use for extinction: CO2, powder or water spray.
- If on skin: Wash with plenty of water.
- Take off contaminated clothing and wash it before reuse.
- Store locked up.
- Store in a well-ventilated place. Keep container tightly closed.
- Store in a well-ventilated place. Keep cool.
- 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
- **Date of preparation / last revision** 06/04/2015 / 1
- **Abbreviations and acronyms:**
  - ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  - DOT: US Department of Transportation
  - 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)
  - Flammable liquids, Hazard Category 4
  - Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  - Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  - STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3

* Data compared to the previous version altered.