### 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** Epoxy.com #6910Additive
- Details of the supplier of the safety data sheet
- **Supplier:** Epoxy Systems, Inc.
  20774W Pennsylvania Ave
  Dunnellon, FL 34431
  Tel.: 352-489-1666
  Fax: 352-489-1625
- **Technical Support:**
  Norm Lambert Tel.: 352-533-2167
  email: info@epoxy.com
- **Emergency telephone number:** PERS 1-800-633-8253

### 2 Composition/information on ingredients

- **Chemical characterization:** Mixtures
- **Description:** Polyisocyanate based on diphenylmethane-diisocyanate
- **Dangerous components:**

<table>
<thead>
<tr>
<th>CAS: 9016-87-9</th>
<th>diphenylmethanediisocyanate, isomers and homologues</th>
<th>50-100%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xn R20-40-48/20; Xi R36/37/38-42/43</td>
<td>Carc. Cat. 3</td>
<td></td>
</tr>
<tr>
<td>☐ H334; H351; H373; ☑ H332; H315; H319; H317; H335</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>CAS: 32055-14-4</th>
<th>Formaldehyd, oligomere Reaktionsprodukte mit Anilin und Phosgen (oligomeres MDI)</th>
<th>25-50%</th>
</tr>
</thead>
<tbody>
<tr>
<td>NLP: 500-079-6</td>
<td>☐ Xn R21-0-48; Xi R36/37/38-42/43</td>
<td></td>
</tr>
<tr>
<td>☑ H334; H351;</td>
<td>H332; H315; H319; H317; H335</td>
<td></td>
</tr>
</tbody>
</table>

- **Additional information** For the wording of the listed risk phrases refer to section 16.

### 3 Hazards identification

- **Classification of the substance or mixture**

  ![GHS08 Health hazard]

  **H334** May cause allergy or asthma symptoms or breathing difficulties if inhaled. H351 Suspected of causing cancer.

  **H373** May cause damage to organs through prolonged or repeated exposure.

  ![GHS07]

  **H315** Causes skin irritation.
  **H319** Causes serious eye irritation.
  **H317** May cause an allergic skin reaction. H335 May cause respiratory irritation.
  **H333** May be harmful if inhaled.

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

  ![Xn; Harmful]


  ![Xi; Irritant]
R36/37/38-42/43: Irritating to eyes, respiratory system and skin. May cause sensitization by inhalation and skin contact.
- Information concerning particular hazards for human and environment:
  The product has to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.
- Label elements
- Labelling according to EU guidelines:
  The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials
- Code letter and hazard designation of product:

Xn Harmful

- Hazard-determining components of labelling:
  diphenylmethanedisocyanate, isomers and homologues
  Formaldehyde, oligomere Reaktionsprodukte mit Anilin und Phosgen (oligomeres MDI)
- Risk phrases:
  20 Harmful by inhalation.
  36/37/38 Irritating to eyes, respiratory system and skin.
  40 Limited evidence of a carcinogenic effect.
  42/43 May cause sensitization by inhalation and skin contact.
  48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.
- Safety phrases:
  23 Do not breathe gas/fumes/vapour/spray.
  24 Avoid contact with skin.
  26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
  37 Wear suitable gloves.
  45 In case of accident or if you feel unwell, seek medical advice immediately.
  60 This material and its container must be disposed of as hazardous waste.
- Special labelling of certain preparations:
  Contains isocyanates. See information supplied by the manufacturer.
- Classification system
- NFPA ratings (scale 0-4)
  Health = 2
  Fire = 1
  Reactivity = 0

4 First aid measures
- General information
  Immediately remove any clothing soiled by the product.
  Take affected persons out into the fresh air.
- After inhalation
  Take affected persons into fresh air and keep quiet.
  Seek medical treatment in case of complaints.
- 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. Then consult a doctor.
- After swallowing
  Do not induce vomiting; immediately call for medical help.
5 Firefighting measures
- 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
  In case of fire, the following can be released:
  Carbon monoxide (CO)
  Carbon dioxide (CO₂)
  Nitrogen oxides (NOₓ)
  Hydrogen cyanide (HCN)
  (Traces)
  Isocyanate vapours
- Protective equipment:
  Wear self-contained respiratory protective device.
  Wear fully protective suit.
- Additional information
  Collect contaminated fire fighting water separately. It must not enter the sewage system.
  Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

6 Accidental release measures
- Personal precautions, protective equipment and emergency procedures
  Ensure adequate ventilation.
  Wear protective equipment. Keep unprotected persons away.
- Environmental precautions: Do not allow product to reach sewage system or any water course.
- Methods and material for containment and cleaning up:
  Pick up mechanically.
  Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
  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.

7 Handling and storage
- Handling
  Precautions for safe handling
  Keep receptacles tightly sealed.
  Ensure good ventilation/exhaustion at the workplace.
  Prevent formation of aerosols.
  The usual precautionary measures for handling chemicals must be observed.
- Information about protection against explosions and fires: No special measures required.
- Storage
  Requirements to be met by storerooms and receptacles:
  Store only in the original receptacle.
  Store containers closely closed and dry
  Keep containers securely closed and dry, store at 10 - 50°C.
- Information about storage in one common storage facility:
  Store away from foodstuffs.
  Do not store together with acids.
  Do not store together with alkalis (caustic solutions).
- Further information about storage conditions: Keep receptacle tightly sealed.
8 Exposure controls/personal protection

- Additional information about design of technical systems: No further data; see item 7.
- 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.
- Personal protective equipment
- General protective and hygienic measures
  Keep away from foodstuffs, beverages and feed.
  Wash hands before breaks and at the end of work.
  Avoid contact with the eyes and skin.
  Immediately remove all soiled and contaminated clothing
- 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.
- Recommended filter device for short term use:
  Combination filter A-P2
- Protection of hands:
  Protective 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
  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.
  Butyl rubber, BR
  Fluorocarbon rubber (Viton)
  Nitrile rubber, NBR
  Recommended thickness of the material: ≥ 0.5 mm
  Breakthrough time: ≥ 480 min
- Penetration time of glove material
  The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- Not suitable are gloves made of the following materials:
  Strong gloves
  Leather gloves
- Eye protection:
  Safety glasses
- Body protection: Protective work clothing.
9 Physical and chemical properties

- General Information
  - Appearance:
    - Form: Fluid
    - Color: Brown
    - Odor: earthy, musty
    - Odour threshold: Not determined.
  - pH-value: Not determined.
- Change in condition
  - Melting point/Melting range: -30°C (-22 °F) (ISO 3016)
  - Boiling point/Boiling range: >300°C (>572 °F) (DIN 53171)
- Flash point: 229°C (444 °F) (DIN EN 22719)
- Ignition temperature: > 500°C (> 932 °F)
- Decomposition temperature: Not determined.
- Auto igniting: Product is not selfigniting.
- Danger of explosion: Product does not present an explosion hazard.
- Explosion limits:
  - Lower: Not determined.
  - Upper: Not determined.
- Vapor pressure at 20°C (68 °F): 11 hPa (8 mm Hg)
- Density at 20°C (68 °F): 1.23 g/cm³ (10.264 lbs/gal) (DIN 51757)
- Relative density: Not determined.
- Vapour density: Not determined.
- Evaporation rate: Not determined.
- Solubility in / Miscibility with
  - Water: Not miscible or difficult to mix
  - Segregation coefficient (n-octanol/water): Not determined.
- Viscosity:
  - dynamic at 20°C (68 °F): 100 mPas (DIN 53019)
  - kinematic: Not determined.
- Solvent content:
  - Organic solvents: 0.0 %
  - Other information: please refer to our technical specification No further relevant information available.

10 Stability and reactivity

- Thermal decomposition / conditions to be avoided:
  - No decomposition if used and stored according to specifications.
- Incompatible materials: No further relevant information available.
- Hazardous decomposition products: No dangerous decomposition products known

11 Toxicological information

- Acute toxicity:
  - LD/LC50 values that are relevant for classification:
    - 9016-87-9 diphenylmethanediisocyanate, isomers and homologues
      - Inhalative LC50/4 h: 490 mg/l (rat)
12 Ecological information

· Acquatic toxicity:
  9016-87-9 diphenylmethanediisocyanate, isomers and homologues
  
  | EC50 | (3h) > 100 mg/l (Belebschlammhchargen) |
  |      | (24h) > 1.000 mg/l (Daphnia magna) |
  | LC0 (96h) | > 1.000 mg/l (Brachydianio rario) |
  
  32055-14-4 Formaldehyde, oligomere Reaktionsprodukte mit Anilin und Phosgen (oligomeres MDI)
  
  Bakterientoxizität > 100 mg/l (Belebschlammhchargen) (EC50 (3h); OECD 209)
  Daphnientoxizität > 1000 mg/l (Daphnia magna) (EC50 (24h); OECD 202)
  Fischtoxizität > 1000 mg/l (Danio rario (Zebrabärling)) (LC0 (96h); OECD 203)

· Persistence and degradability biodegradability: 0%
· Behavior in environmental systems:
· Bioaccumulative potential: No further relevant information available.
· Additional ecological information:
· General notes:
  Water hazard class 1 (German Regulation) (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.
  The product reacts with water releasing CO2, to form a solid, insoluble polycarbamide with a high melting point which, according to present knowledge, is inert and not degradable.

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, ADR, ADN, IMDG, IATA: Void

Trade name: Epoxy.com #6910 Additive

32055-14-4 Formaldehyde, oligomere Reaktionsprodukte mit Anilin und Phosgen (oligomeres MDI)

<table>
<thead>
<tr>
<th>Oral</th>
<th>LD50</th>
<th>&gt; 2000 mg/kg (rat)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalative</td>
<td>LC50</td>
<td>490 (4h) mg/m3 (rat)</td>
</tr>
</tbody>
</table>
15 Regulatory information

- Cancerogenity categories
  - EPA (Environmental Protection Agency)
    9016-87-9 diphenylmethanedisocyanate, isomers and homologues CBD
  - IARC (International Agency for Research on Cancer)
    9016-87-9 diphenylmethanedisocyanate, isomers and homologues 3
  - NTP (National Toxicology Program)
    None of the ingredients is listed.
  - TLV (Threshold Limit Value established by ACGIH)
    None of the ingredients is listed.
  - MAK (German Maximum Workplace Concentration)
    9016-87-9 diphenylmethanedisocyanate, isomers and homologues 4
  - NIOSH-Ca (National Institute for Occupational Safety and Health)
    None of the ingredients is listed.
  - OSHA-Ca (Occupational Safety & Health Administration)
    None of the ingredients is listed.

- Markings according to EU guidelines:
  The product has been classified and marked in accordance with EU Directives / Ordinance on Hazardous Materials

- Code letter and hazard designation of product:
  Xn Harmful

- Hazard-determining components of labelling:
  diphenylmethanedisocyanate, isomers and homologues
  Formaldehyde, oligomere Reaktionsprodukte mit Anilin und Phosgen (oligomeres MDI)

- Risk phrases:
  20 Harmful by inhalation.
  36/37/38 Irritating to eyes, respiratory system and skin.
40 Limited evidence of a carcinogenic effect.
42/43 May cause sensitization by inhalation and skin contact.
48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Safety phrases:
23 Do not breathe gas/fumes/vapour/spray.
24 Avoid contact with skin.
26 In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
37 Wear suitable gloves.
45 In case of accident or if you feel unwell, seek medical advice immediately.
60 This material and its container must be disposed of as hazardous waste.

Special labeling of certain preparations:
Contains isocyanates. See information supplied by the manufacturer.

National regulations

Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.

Sara

Section 355 (Extremely hazardous substances):
None of the ingredients is listed.

Section 313 (Specific toxic chemical listings):
9016-87-9 diphenylmethanedisocyanate, isomers and homologues

TSCA (Toxic Substances Control Act):
9016-87-9 diphenylmethanedisocyanate, isomers and homologues

Chemicals known to cause cancer:
None of the ingredients is listed.

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.

Relevant phrases
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.
R20 Harmful by inhalation.
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitization by inhalation and skin contact.
R48 Danger of serious damage to health by prolonged exposure.
R48/20 Harmful: danger of serious damage to health by prolonged exposure through inhalation.

Department issuing MSDS:
IGG-AD Ingenieurbüro für Gefahrstoff- und Gefahrgutberatung
Bismarckstraße 10
D-68623 Lampertheim
Fax: 0049-(0)6206-58422 http://www.igg-ad.de info@igg-ad.de

Contact:
Dr. U. Prinz (u.prinz@igg-ad.de)
Dipl.-Chem. H. Hinse (heidrun.hinse@igg-ad.de)

(Contd. on page 9)
<table>
<thead>
<tr>
<th>Abbreviations and acronyms:</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)</td>
</tr>
<tr>
<td>RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)</td>
</tr>
<tr>
<td>IMDG: International Maritime Code for Dangerous Goods</td>
</tr>
<tr>
<td>IATA: International Air Transport Association</td>
</tr>
<tr>
<td>ICAO: International Civil Aviation Organization</td>
</tr>
<tr>
<td>ACGIH: American Conference of Governmental Industrial Hygienists</td>
</tr>
<tr>
<td>NFPA: National Fire Protection Association (USA)</td>
</tr>
<tr>
<td>MAL-Code: Måleteknisk Arbejdshygiensk Luftbehov (Regulation for the labeling concerning inhalation hazards, Denmark)</td>
</tr>
<tr>
<td>LC50: Lethal concentration, 50 percent</td>
</tr>
<tr>
<td>LD50: Lethal dose, 50 percent</td>
</tr>
</tbody>
</table>