1 Identification

- **Product identifier**
- **Trade name:** EP62-1 (Part-A)
- **Article number:** Epoxy resin

- **Relevant identified uses of the substance or mixture and uses advised against**
  - Recommended use - Adhesives, Sealants, Coatings

- **Details of the supplier of the safety data sheet**
  - **Manufacturer/Supplier:**
    Master Bond Inc.
    154 Hobart Street
    USA-Hackensack, NJ 07601
    Phone: 201-343-8983
  - **Information department:**
    Product safety department

  - **Emergency phone number:** (CHEMTREC)
    (North America) : 800-424-9300
    (International) : 703-527-3887

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - Skin Irrit. 2  H315  Causes skin irritation.
  - Eye Irrit. 2A H319  Causes serious eye irritation.
  - Skin Sens. 1 H317  May cause an allergic skin reaction.
  - STOT SE 3 H335  May cause respiratory irritation.

- **Label elements**

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

  - GHS07

- **Signal word** Warning

- **Hazard statements**
  - Causes skin irritation.
  - Causes serious eye irritation.
  - May cause an allergic skin reaction.
  - May cause respiratory irritation.

- **Precautionary statements**
  - Avoid breathing vapours.
  - Wear protective gloves / eye protection / face protection.
  - Wash thoroughly after handling.
  - Use only outdoors or in a well-ventilated area.
  - Contaminated work clothing must not be allowed out of the workplace.
  - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.
  - Continue rinsing.
  - Call a poison center/doctor if you feel unwell.
  - If skin irritation or rash occurs: Get medical advice/attention.

(Contd. on page 2)
3 Composition/information on ingredients

· Chemical characterization: Substances
  · CAS No. Description
    Epoxy resin (CAS no. 25068-38-6) (60-100%)
  · Identification number(s) -

4 First-aid measures

· Description of first aid measures
  · After inhalation:
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
    Seek medical treatment.
  · After skin contact:
    Immediately wash with water and soap and rinse thoroughly.
    Seek medical treatment.
  · After eye contact:
    Rinse opened eye for several minutes under running water. Then consult a doctor.
    Seek medical treatment.
  · After swallowing:
    Do not induce vomiting; immediately call for medical help.
    Seek medical treatment.

5 Fire-fighting measures

· Extinguishing media
  · Suitable extinguishing agents: Use fire fighting measures that suit the environment.
  · Advice for firefighters
  · Protective equipment: Wear personal protective equipments.

6 Accidental release measures

· Personal precautions, protective equipment and emergency procedures Wear protective equipment.
Environmental precautions:
Do not allow product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.

Methods and material for containment and cleaning up:
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

Handling and storage

Handling:

Precautions for safe handling 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: Provide ventilation for receptacles.

Information about storage in one common storage facility: Not required.

Further information about storage conditions:
Keep container tightly closed in a dry, cool and well-ventilated place.
Keep receptacle tightly sealed.

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: Not required.

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 foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.

Breathing equipment: Use suitable respiratory protective device in case of insufficient ventilation.

Protection of hands:

Material of gloves Chemical resistant 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.
### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
  - **Appearance:**
    - Form: Viscous
    - Color: Clear
  - **Odor:** Characteristic
  - **Odour threshold:** Not available
- **pH-value:** Not available
- **Change in condition**
  - Melting point/Melting range: Not available
  - Boiling point/Boiling range: 260 °C (500 °F)
- **Flash point:** 251 °C (484 °F)
- **Flammability (solid, gaseous):** Not available
- **Ignition temperature:**
  - Decomposition temperature: Not available
  - Auto igniting: Not available
  - Danger of explosion: Not available
- **Explosion limits:**
  - Lower: Not available
  - Upper: Not available
- **Vapor pressure at 20 °C (68 °F):** 0.03 mbar
- **Density:**
  - Relative density at 20 °C (68 °F): 1.17 g/cm³ (9.764 lbs/gal)
- **Viscosity:**
  - Dynamic: Not available
  - Kinematic: Not available
- **Solubility in / Miscibility with**
  - Water: Negligible
- **Partition coefficient (n-octanol/water):** Not available

### 10 Stability and reactivity

- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
  - **LD/LC50 values that are relevant for classification:**
    - Oral LD50: 11,400 mg/kg (rat)
    - Dermal LD50: 2000 mg/kg (rat)
  - **Primary irritant effect:**
    - on the skin: Causes skin irritation.
    - on the eye: Severe eye irritant.
  - **Sensitization:** May cause allergic skin reaction.
  - **Additional toxicological information:**

- **Carcinogenic categories**
  - **IARC (International Agency for Research on Cancer)**
    Substance is not listed.
  - **NTP (National Toxicology Program)**
    Substance is not listed.
  - **OSHA-Ca (Occupational Safety & Health Administration)**
    Substance is not listed.

12 Ecological information

- **Additional ecological information:**
- **General notes:**
  Generally not hazardous for water
  Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  **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, ADR, ADN, IMDG, IATA** : Not regulated
- **UN proper shipping name**
  - **DOT, ADR, IMDG, IATA** : Not regulated
### 15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
  - **Sara**
    - Section 355 (extremely hazardous substances):
      - Substance is not listed.
    - Section 313 (Specific toxic chemical listings):
      - Substance is not listed.
  - **TSCA (Toxic Substances Control Act):**
    - Substance is listed.
  - **Proposition 65**
    - Chemicals known to cause cancer: Substance is not listed.
    - Chemicals known to cause reproductive toxicity for females: Substance is not listed.
    - Chemicals known to cause reproductive toxicity for males: Substance is not listed.
    - Chemicals known to cause developmental toxicity: Substance is not listed.
  - **Carcinogenic categories**
    - EPA (Environmental Protection Agency)
      - Substance is not listed.
    - TLV (Threshold Limit Value established by ACGIH)
      - Substance is not listed.
    - NIOSH-Ca (National Institute for Occupational Safety and Health)
      - Substance is not listed.
  - **GHS label elements**
    - The substance is classified and labeled according to the Globally Harmonized System (GHS).
    - **Hazard pictograms**

![GHS07](image)

- **Signal word** Warning

(Contd. on page 7)
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: Master Bond Inc.
· Date of preparation / last revision 06/29/2015 / -
· 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)
  IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  ICAO: International Civil Aviation Organisation
  ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
  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
  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
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Irrit. 2A: Serious eye damage/eye irritation, Hazard Category 2A
  Skin Sens. 1: Sensitisation - Skin, Hazard Category 1
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
1 Identification

- **Product identifier**
- **Trade name:** EP62-1 (Part-B)
- **Article number:** Curing agent blend
- **Relevant identified uses of the substance or mixture and uses advised against**
  - Recommended use - Adhesives, Sealants, Coatings

2 Hazard(s) identification

- **Classification of the substance or mixture**
  - Acute Tox. 4  H302  Harmful if swallowed.
  - Skin Irrit. 2  H315  Causes skin irritation.
  - Eye Dam. 1  H318  Causes serious eye damage.
  - STOT SE 3  H335  May cause respiratory irritation.
  - Aquatic Acute 3  H402  Harmful to aquatic life.

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

  GHS05  GHS07

- **Signal word** Danger
- **Hazard statements**
  - Harmful if swallowed.
  - Causes skin irritation.
  - Causes serious eye damage.
  - May cause respiratory irritation.
  - Harmful to aquatic life.
- **Precautionary statements**
  - Avoid breathing dust/fume/gas/mist/vapors/spray
  - Wear protective gloves / eye protection / face protection.
  - Wash thoroughly after handling.
  - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
  - If swallowed: Call a poison center/doctor if you feel unwell.
  - If skin irritation or rash occurs: Get medical advice/attention.

(Contd. on page 2)
Safety Data Sheet
acc. to OSHA HCS

Trade name: EP62-1 (Part-B)

41.0

If eye irritation persists: Get medical advice/attention.
If on skin: Wash with plenty of soap and water.
Take off contaminated clothing and wash it before reuse.

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>1</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>1</td>
<td>0</td>
</tr>
</tbody>
</table>

3 Composition/Information on ingredients

· Chemical characterization: Substances
· CAS No. Description
  2-Ethyl-4-Methylimidazole (CAS no. 931-36-2), 1-Methylimidazole (CAS no. 616-47-7) (60-100%)
· Identification number(s) -

4 First-aid measures

· Description of first aid measures
  · After inhalation:
    Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
    Seek medical treatment.
  · After skin contact:
    Immediately wash with water and soap and rinse thoroughly.
    Seek medical treatment.
  · After eye contact:
    Rinse opened eye for several minutes under running water. Then consult a doctor.
    Seek medical treatment.
  · After swallowing:
    Do not induce vomiting; immediately call for medical help.
    Seek medical treatment.

5 Fire-fighting measures

· Extinguishing media
· Suitable extinguishing agents: Use fire fighting measures that suit the environment.
· Advice for firefighters
· Protective equipment:
  Wear personal protective equipments.
  Mouth respiratory protective device.
6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures** Wear protective equipment.
  
  · **Environmental precautions:**
    Do not allow product to reach sewage system or any water course.
    Inform respective authorities in case of seepage into water course or sewage system.
  
  · **Methods and material for containment and cleaning up:**
    Dispose contaminated material as waste according to item 13.
    Ensure adequate ventilation.

7 Handling and storage

· **Handling:**
  
  · **Precautions for safe handling** 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:** No information available.
    · **Information about storage in one common storage facility:** Do not store together with acids.
    · **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.
  
  · **Control parameters**
  
  · **Components with limit values that require monitoring at the workplace:** Not required.
  
  · **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 foodstuffs, beverages and feed.
      Immediately remove all soiled and contaminated clothing.
      Wash hands before breaks and at the end of work.
      Avoid contact with the eyes and skin.
    
    · **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
    · **Protection of hands:**

      ![Protective gloves]

      · **Material of gloves** Chemical resistant 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.

(Contd. on page 4)
## 9 Physical and chemical properties

### Information on basic physical and chemical properties

#### General Information

- **Appearance:**
  - **Form:** Liquid
  - **Color:** Amber
- **Odor:** Amine-like
- **Odour threshold:** Not available

- **pH-value:** Not available

#### Change in condition

- **Melting point/Melting range:** Not available
- **Boiling point/Boiling range:** 131 °C (268 °F)

- **Flash point:** > 160 °C (> 320 °F)

#### Flammability (solid, gaseous):

- **Flammability:** Not available

#### Ignition temperature:

- **Decomposition temperature:** Not available

#### Auto igniting:

- **Auto igniting:** Not available

#### Danger of explosion:

- **Explosion limits:**
  - **Lower:** Not available
  - **Upper:** Not available

- **Vapor pressure:** Not available

#### Density:

- **Relative density at 20 °C (68 °F):** 0.98 g/cm³
- **Vapour density:** Not available
- **Evaporation rate:** Not available

#### Solubility in / Miscibility with Water:

- **Insoluble.

#### Partition coefficient (n-octanol/water):

- **Not available.

#### Viscosity:

- **Dynamic:** Not available
- **Kinematic:** Not available

## 10 Stability and reactivity

- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.

(Contd. on page 5)
11 Toxicological information

· Information on toxicological effects
· Acute toxicity:

· LD/LC50 values that are relevant for classification:

<table>
<thead>
<tr>
<th>Substance</th>
<th>Oral LD50</th>
<th>Derma LD50</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethyl-4-Methylimidazole (CAS no. 931-36-2), 1-Methylimidazole (CAS no. 616-47-7)</td>
<td>731 mg/kg (rat)</td>
<td>NA (rabbit)</td>
</tr>
</tbody>
</table>

· Primary irritant effect:
· on the skin: May cause skin irritation.
· on the eye: Severe eye irritant.
· Sensitization: May cause sensitization by skin contact.
· Additional toxicological information:

· Carcinogenic categories

· IARC (International Agency for Research on Cancer)
  Substance is not listed.
· NTP (National Toxicology Program)
  Substance is not listed.
· OSHA-Ca (Occupational Safety & Health Administration)
  Substance is not listed.

12 Ecological information

· 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.
· 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, ADR, IMDG, IATA: Not regulated
15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**
  - **Section 355 (extremely hazardous substances):**
    Substance is not listed.
  - **Section 313 (Specific toxic chemical listings):**
    Substance is not listed.
- **TSCA (Toxic Substances Control Act):**
  Substance is listed.
- **Proposition 65**
  - **Chemicals known to cause cancer:**
    Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for females:**
    Substance is not listed.
  - **Chemicals known to cause reproductive toxicity for males:**
    Substance is not listed.
  - **Chemicals known to cause developmental toxicity:**
    Substance is not listed.
- **Carcinogenic categories**
  - **EPA (Environmental Protection Agency)**
    Substance is not listed.
  - **TLV (Threshold Limit Value established by ACGIH)**
    Substance is not listed.
  - **NIOSH-Ca (National Institute for Occupational Safety and Health)**
    Substance is not listed.
  - **GHS label elements**
    The substance is classified and labeled according to the Globally Harmonized System (GHS).
  - **Hazard pictograms**
    ![GHS05](image) ![GHS07](image)
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: Master Bond Inc.
· Date of preparation / last revision 06/29/2015 / -
· 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)
  IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)
  ICAO: International Civil Aviation Organisation
  ICAO-TI: Technical Instructions by the "International Civil Aviation Organisation" (ICAO)
  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
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  NFPA: National Fire Protection Association (USA)
  HMIS: Hazardous Materials Identification System (USA)
  Acute Tox. 4: Acute toxicity, Hazard Category 4
  Skin Irrit. 2: Skin corrosion/irritation, Hazard Category 2
  Eye Dam. 1: Serious eye damage/eye irritation, Hazard Category 1
  STOT SE 3: Specific target organ toxicity - Single exposure, Hazard Category 3
  Aquatic Acute 3: Hazardous to the aquatic environment - AcuteHazard, Category 3