

**Safety Data Sheet**  
acc. to OSHA HCS

Printing Date 07/02/2018

Revision Number 2

Revision Date 07/02/2018

**1 Identification**

- **Product identifier**
- **Trade name: Double Bubble Epoxy General Purpose Part B (04005)**
- **Relevant identified uses of the substance or mixture.** Curing Agent
- **Application of the substance / the mixture** Curing agent/ cross-linker/ Vulcanizing agent
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Royal Adhesives & Sealants  
800 E. Anaheim Street  
Wilmington. CA 90744  
(310) 830-9904
- **Information department:** Environment protection department.
- **Emergency telephone number:**  
ChemTrec: Day or Night within USA and Canada: 1-800-424-9300.  
Outside USA and Canada: +1 703-527-3887 (collect calls accepted)

**2 Hazard(s) identification**

- **Classification of the substance or mixture**



GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and eye damage.

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Sens. 1 H317 May cause an allergic skin reaction.

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



GHS05



GHS07

- **Signal word** Danger
- **Hazard statements**  
Causes severe skin burns and eye damage.  
May cause an allergic skin reaction.
- **Precautionary statements**  
Do not breathe dusts or mists.  
Wash thoroughly after handling.  
Contaminated work clothing must not be allowed out of the workplace.  
Wear protective gloves/protective clothing/eye protection/face protection.

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*If swallowed: Rinse mouth. Do NOT induce vomiting.*

*If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.*

*IF INHALED: Remove person to fresh air and keep comfortable for breathing.*

*If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do.*

*Continue rinsing.*

*Immediately call a poison center/doctor.*

*Specific treatment (see on this label).*

*If skin irritation or rash occurs: Get medical advice/attention.*

*Wash contaminated clothing before reuse.*

*Store locked up.*

*Dispose of contents/container in accordance with local/regional/national/international regulations.*

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 2

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

|                 |   |
|-----------------|---|
| HEALTH          | 2 |
| FIRE            | 1 |
| PHYSICAL HAZARD | 0 |

Health = 2

Fire = 1

Physical Hazard = 0

· **Other hazards**

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description: Mixture**

· **Hazardous components:**

|            |                               |         |
|------------|-------------------------------|---------|
| 68410-23-1 | Polyamide                     | 50-100% |
|            | Polyamine                     | 2.5-10% |
| 112-24-3   | 3,6-diazaoctanethylenediamine | ≤2.5%   |

### 4 First-aid measures

· **Description of first aid measures**

· **After inhalation:**

*Supply fresh air or oxygen; call for doctor.*

*In case of unconsciousness place patient stably in side position for transportation.*

· **After skin contact:** *Immediately wash with water and soap and rinse thoroughly.*

· **After eye contact:**

*Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.*

· **After swallowing:** *Seek medical treatment.*

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** *No further relevant information available.*

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- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray.  
Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** Protective clothing and respiratory protective device.

### 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**  
Ensure adequate ventilation  
Wear protective clothing.
- **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).
- **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**

- **PAC-1:**

|          |                               |       |
|----------|-------------------------------|-------|
| 112-24-3 | 3,6-diazaoctanethylenediamine | 3 ppm |
|----------|-------------------------------|-------|

- **PAC-2:**

|          |                               |        |
|----------|-------------------------------|--------|
| 112-24-3 | 3,6-diazaoctanethylenediamine | 14 ppm |
|----------|-------------------------------|--------|

- **PAC-3:**

|          |                               |        |
|----------|-------------------------------|--------|
| 112-24-3 | 3,6-diazaoctanethylenediamine | 83 ppm |
|----------|-------------------------------|--------|

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Open and handle receptacle with care.  
Ensure good ventilation/exhaustion at the workplace.  
Prevent formation of aerosols.
- **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 away from direct heat.
- **Information about storage in one common storage facility:** Keep away from open flames and high temperatures.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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### 8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**  
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.  
At this time, the other constituents have no known exposure limits.

#### 112-24-3 3,6-diazaoctanethylenediamine

|      |  |
|------|--|
| WEEL | Long-term value: 6 mg/m <sup>3</sup> , 1 ppm |
|      | Skin   |

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment (see listings below)**
- **General protective and hygienic measures:**  
The usual precautionary measures for handling chemicals should be followed.
- **Breathing equipment:** Not necessary if room is well-ventilated.
- **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  
Chloroprene rubber, CR
- **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 with side shields.
- **Body protection:** Protective work clothing

### 9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

|                        |                 |
|------------------------|-----------------|
| <b>Form:</b>           | Liquid          |
| <b>Color:</b>          | Amber           |
| <b>Odor:</b>           | Amine-like      |
| <b>Odor threshold:</b> | Not determined. |

- **Change in condition**

|                       |               |
|-----------------------|---------------|
| <b>Melting point:</b> | Undetermined. |
| <b>Boiling point:</b> | Undetermined  |

· **Flash point:** > 97 °C (>206.6 °F)

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

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· **Flammable limits:**

**Lower:** Not Available  
**Upper:** Not Available

· **Specific gravity at 20 °C (68 °F):** 1.01

· **Relative density:** Not determined.  
 · **Vapor density:** Not determined.  
 · **Evaporation rate:** Not determined

· **Solubility in / Miscibility with**

**Water:** Not miscible or difficult to mix.

· **Viscosity:**

**Dynamic:** Not determined.  
**Kinematic:** Not determined.

· **Solvent content:**

**VOC (Per EPA 24)** 146 GMS/L

**Solids content:** Not available.

· **Other information:** No further relevant information available.

### 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:** Avoid high temperatures. Avoid freezing.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:** Carbon Monoxide, Carbon Dioxide, Nitrogen Oxides, Ammonia.

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** Causes severe skin burns.
- **on the eye:**  
 Causes serious eye damage  
 Vapors may be irritating to the eyes.
- **Sensitization:** Skin Contact - May cause allergic skin reaction.
- **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 is listed.

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

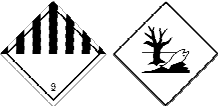
### \* 12 Ecological information

- **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:** At present there are no ecotoxicological assessments.
- **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 be specially treated adhering to official regulations.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

### \* 14 Transport information

- |   |  |
|---|--|
| · <b>UN-Number</b>  | Void   |
| · <b>DOT</b>  | not regulated  |
| · <b>IMDG, IATA</b>   | UN3082   |
| · <b>UN proper shipping name</b>  |  |
| · <b>DOT</b>  | not regulated  |
| · <b>IMDG</b>   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S., MARINE POLLUTANT |
| · <b>IATA</b>   | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID,<br>N.O.S.                   |
| · <b>Transport hazard class(es)</b>   |  |
| · <b>DOT</b>  |  |
| · <b>Class</b>  | not regulated  |
| · <b>IMDG, IATA</b>   |  |
|  |  |
| · <b>Class</b>  | 9 Miscellaneous dangerous substances and articles                        |
| · <b>Label</b>  | 9  |

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|  |   |
|--|---|
| · <b>Packing group</b>   | Not Regulated   |
| · <b>DOT</b>   | not regulated   |
| · <b>IMDG, IATA</b>  | III   |
| · <b>Environmental hazards:</b>  |   |
| · <b>Marine pollutant:</b>   | Symbol (fish and tree)  |
| · <b>Special marking (ADR):</b>  | Symbol (fish and tree)  |
| · <b>Special marking (IATA):</b>   | Symbol (fish and tree)  |
| · <b>Special precautions for user</b>  | Warning: Miscellaneous dangerous substances and articles                                  |
| · <b>EMS Number:</b>   | F-A,S-F   |
| · <b>Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b> | Not applicable.   |
| · <b>Transport/Additional information:</b>                                       | Product packaging conforms to 49 CFR 173.4 - Requirements for "Small Quantity Exceptions" |
| · <b>UN "Model Regulation":</b>  | UN3082, Environmentally hazardous substances, liquid, n.o.s., 9, 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 is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

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

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements.

· **TSCA new (21st Century Act) (Substances not listed)**

Polyamine

· **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.

· **(DSL) Canada Domestic Substance List**

All components of this product are on the DSL(Canada Domestic Substance list) or are exempt from DSL requirements.

· **New Jersey Right-to-Know List:**

112-24-3 3,6-diazaoctanethylenediamine

· **New Jersey Special Hazardous Substance List:**

112-24-3 3,6-diazaoctanethylenediamine

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· **Pennsylvania Right-to-Know List:**

|          |                               |
|----------|-------------------------------|
| 112-24-3 | 3,6-diazaoctanethylenediamine |
|----------|-------------------------------|

· **Pennsylvania Special Hazardous Substance List:**

None of the ingredients is listed.

· **Cancerogenity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

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

None of the ingredients listed.

· **MAK (German Maximum Workplace Concentration)**

None of the ingredients is listed.

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

None of the ingredients is listed.

· **National regulations:**

· **Water hazard class:** Water hazard class 2 (Self-assessment): hazardous for water.

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

### 16 Other information

Although the information and recommendations set forth in this SDS are presented in good faith and are believed to be correct as of the date of this SDS, Royal Adhesives & Sealants makes no representations as to the completeness or accuracy thereof. Information is supplied on the condition that the persons receiving and using it will make their own determination as to the suitability for their purpose prior to use. In no event will Royal Adhesives & Sealants or any affiliate thereof be responsible for damages of any nature whatsoever resulting from the use or reliance on the information set forth in the SDS.

· **Department issuing SDS:** Environment protection department.

· **Creation Date:** 07/02/2018

· **Date of preparation / last revision** 07/02/2018 / 1

· **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

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

Skin Corr. 1B: Skin corrosion/irritation – Category 1B

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*Eye Dam. 1: Serious eye damage/eye irritation – Category 1*  
*Skin Sens. 1: Skin sensitisation – Category 1*

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