

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

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**1 Identification**

- **Product identifier**
- **Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**
- **Relevant identified uses of the substance or mixture.** Curing Agent
- **Application of the substance / the mixture** Epoxy curing 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**



GHS08 Health hazard

Repr. 2 H361 Suspected of damaging fertility or the unborn child.



GHS05 Corrosion

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

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Acute Tox. 4 H302 Harmful if swallowed.

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



GHS08

- **Signal word** Danger
- **Hazard statements**  
Harmful if swallowed.

(Contd. on page 2)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 1)

*Causes severe skin burns and eye damage.*

*May cause an allergic skin reaction.*

*Suspected of damaging fertility or the unborn child.*

· **Precautionary statements**

*Do not breathe dusts or mists.*

*Wear protective gloves/protective clothing/eye protection/face protection.*

*Wash thoroughly after handling.*

*Do not eat, drink or smoke when using this product.*

*Contaminated work clothing must not be allowed out of the workplace.*

*Obtain special instructions before use.*

*Do not handle until all safety precautions have been read and understood.*

*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.*

*Immediately call a POISON CENTER/doctor.*

*Specific treatment (see on this label).*

*IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.*

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

*Wash contaminated clothing before reuse.*

*IF exposed or concerned: Get medical advice/attention.*

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

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

*Store locked up.*

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

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



Health = 3

Fire = 1

Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**

HEALTH	3
FIRE	1
PHYSICAL HAZARD	0

Health = \*3

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:**

84852-15-3	4-nonylphenol, branched	50-100%
111-40-0	2,2'-iminodiethylamine	5-20%
80-05-7	4,4'-isopropylidenediphenol	5-20%

USA

(Contd. on page 3)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 2)

### 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:**  
Wipe excess from skin.  
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:** Rinse opened eye for 20 minutes under running water. Call a Doctor immediately.
- **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.

### 5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Use water fog, dry chemical, foam, Carbon Dioxide.  
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:**

84852-15-3	4-nonylphenol, branched	3.9 mg/m <sup>3</sup>
111-40-0	2,2'-iminodiethylamine	3 ppm
80-05-7	4,4'-isopropylidenediphenol	15 mg/m <sup>3</sup>

- **PAC-2:**

84852-15-3	4-nonylphenol, branched	43 mg/m <sup>3</sup>
111-40-0	2,2'-iminodiethylamine	8.5 ppm
80-05-7	4,4'-isopropylidenediphenol	110 mg/m <sup>3</sup>

- **PAC-3:**

84852-15-3	4-nonylphenol, branched	260 mg/m <sup>3</sup>
------------	-------------------------	-----------------------

(Contd. on page 4)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 3)

111-40-0	2,2'-iminodiethylamine	51 ppm
80-05-7	4,4'-isopropylidenediphenol	650 mg/m <sup>3</sup>

### 7 Handling and storage

- **Handling:**
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Use only in well ventilated areas.
- **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:** 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.
- **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.

#### 111-40-0 2,2'-iminodiethylamine

REL	Long-term value: 4 mg/m <sup>3</sup> , 1 ppm Skin
TLV	Long-term value: 4.2 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  
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.

(Contd. on page 5)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 4)

- **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:

**Form:** Liquid

**Color:** Amber

· **Odor:** Amine-like

· **Odor threshold:** Not determined.

· **pH-value:** Not applicable.

##### · Change in condition

**Melting point:** Undetermined.

**Boiling point:** Undetermined

· **Flash point:** > 97 °C (> 207 °F)

· **Ignition temperature:** 325 °C (617 °F)

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

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

##### · Flammable limits:

**Lower:** 1.0 Vol %

**Upper:** 10.0 Vol %

· **Vapor pressure at 20 °C (68 °F):** 0.5 hPa

· **Specific gravity at 20 °C (68 °F):** 0.97 g/cm<sup>3</sup> (8.095 lbs/gal)

· **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:

**Organic solvents:** 0.0 %

**VOC (Per EPA 24)** 856 GMS/L

**Solids content:** 80.2 %

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

### 10 Stability and reactivity

- **Reactivity** No further relevant information available.

(Contd. on page 6)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 5)

- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No further information is available.
- **Conditions to avoid** Exposure to high temperatures.
- **Incompatible materials:** Reacts with oxidizing agents.
- **Hazardous decomposition products:**  
Carbon monoxide and carbon dioxide  
Nitrogen oxides  
Ammonia

### 11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**

- **LD/LC50 values that are relevant for classification:**

#### 111-40-0 2,2'-iminodiethylamine

Oral	LD50	1080 mg/kg (rat)
Dermal	LD50	1090 mg/kg (rabbit)

#### 80-05-7 4,4'-isopropylidenediphenol

Oral	LD50	3250 mg/kg (rat)
Dermal	LD50	3000 mg/kg (rabbit)

- **Primary irritant effect:**
- **on the skin:** Strong caustic effect on skin and mucous membranes.
- **on the eye:**  
Strong irritant with the danger of severe eye injury.  
Vapors may be severely irritating to the eyes.
- **Sensitization:** Skin Contact - May cause allergic skin reaction.
- **Additional toxicological information:**  
The product is not subject to classification according to internally approved calculation methods for preparations:  
Harmful  
Corrosive

- **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.

- **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.

(Contd. on page 7)

# Safety Data Sheet

acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**



(Contd. of page 6)

- **Ecotoxicological effects:**
- **Remark:** Very toxic for fish
- **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>                          |  |
| <b>· DOT, IMDG, IATA</b>                    | UN1760   |
| <b>· UN proper shipping name</b>            |  |
| <b>· DOT</b>                                | Corrosive liquids, n.o.s. (4-nonylphenol, branched, Diethylenetriamine)                  |
| <b>· IMDG</b>                               | CORROSIVE LIQUID, N.O.S. (4-nonylphenol, branched, DIETHYLENETRIAMINE), MARINE POLLUTANT |
| <b>· IATA</b>                               | CORROSIVE LIQUID, N.O.S. (4-nonylphenol, branched, DIETHYLENETRIAMINE)                   |
| <b>· Transport hazard class(es)</b>         |  |
| <b>· DOT</b>                                |  |
|   |       |
| <b>· Class</b>                              | 8 Corrosive substances   |
| <b>· Label</b>                              | 8  |
| <hr style="border-top: 1px dashed black;"/> |  |
| <b>· IMDG</b>                               |  |
|   |       |
| <b>· Class</b>                              | 8 Corrosive substances   |
| <b>· Label</b>                              | 8  |

(Contd. on page 8)

# Safety Data Sheet

acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 7)

**· IATA**



· **Class** 8 Corrosive substances  
 · **Label** 8

· **Packing group**  
 · **DOT, IMDG, IATA** II

· **Environmental hazards:** Product contains environmentally hazardous substances: 4-nonylphenol, branched  
 · **Marine pollutant:** Yes  
 Symbol (fish and tree)  
 · **Special marking (ADR):** Symbol (fish and tree)

· **Special precautions for user** Warning: Corrosive substances  
 · **Danger code (Kemler):** 86  
 · **EMS Number:** F-A,S-B  
 · **Segregation groups** Alkalis  
 · **Stowage Category** B  
 · **Stowage Code** SW2 Clear of living quarters.

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.

· **Transport/Additional information:** Product packaging conforms to 49 CFR 173.4 - Requirements for "Small Quantity Exceptions".  
 · **DOT**  
 · **Remarks:** Special marking with the symbol (fish and tree).

· **UN "Model Regulation":** UN 1760 CORROSIVE LIQUIDS, N.O.S. (4-NONYLPHENOL, BRANCHED, DIETHYLENETRIAMINE), 8, II, ENVIRONMENTALLY HAZARDOUS

## 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):**

84852-15-3 4-nonylphenol, branched

80-05-7 4,4'-isopropylidenediphenol

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

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

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

(Contd. on page 9)



# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 8)

· **Chemicals known to cause reproductive toxicity for females:**

80-05-7	4,4'-isopropylidenediphenol
---------	-----------------------------

· **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:**

111-40-0	2,2'-iminodiethylamine
----------	------------------------

80-05-7	4,4'-isopropylidenediphenol
---------	-----------------------------

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

111-40-0	2,2'-iminodiethylamine	CO
----------	------------------------	----

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

111-40-0	2,2'-iminodiethylamine
----------	------------------------

80-05-7	4,4'-isopropylidenediphenol
---------	-----------------------------

· **Pennsylvania Special Hazardous Substance List:**

80-05-7	4,4'-isopropylidenediphenol	E
---------	-----------------------------	---

· **Carcinogenicity 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 3 (Self-assessment): extremely 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:** 10/16/2017

· **Date of preparation / last revision** 10/16/2017 / 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)

(Contd. on page 10)

# Safety Data Sheet

## acc. to OSHA HCS

Printing Date 10/16/2017

Revision Number 2

Revision Date 10/16/2017

**Trade name: Double Bubble Epoxy Regular Setting Black Package Part B (04006)**

(Contd. of page 9)

*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)**LC50: Lethal concentration, 50 percent**LD50: Lethal dose, 50 percent**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**Acute Tox. 4: Acute toxicity – Category 4**Skin Corr. 1B: Skin corrosion/irritation – Category 1B**Eye Dam. 1: Serious eye damage/eye irritation – Category 1**Skin Sens. 1: Skin sensitisation – Category 1**Repr. 2: Reproductive toxicity – Category 2*

USA