



**ImSeal 800, 801, 802, 803 Part A & B  
Safety Data Sheet**

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

**1.1 Product Identifier**

**Trade Name** **IMPCO IMSEAL 800, 801, 802, 803 Part A & B**  
**SDS Date** September 1, 2016

**1.2 Relevant Identified Uses of the Substance or Mixture and Uses Advised Against**

**Product Use:** Two part epoxy for repair  
**Uses Advised Against:** None

**1.3 Details of the Supplier of the Substance or Mixture**

**Manufacturer:** **Godfrey & Wing DBA IMPCO, Incorporated**  
 11 Dexter Road  
 East Providence, RI 02914

**1.4 Emergency Telephone Number**

**Emergency Spill Information** +1 (800) 424-9300 (CHEMTREC)  
 +1 (703) 527-3887 for International Calls (call CHEMTREC collect)

**Other Product Information:** +1 (401) 521-2490  
 mail@impc-inc.com

**SECTION 2: HAZARDS IDENTIFICATION**


**2.1 Classification of the Substance or Mixture**

**EU Classification (67/548/EEC):** Corrosive (C), Harmful (Xn), Irritant (Xi), Dangerous for the Environment (N) R21/22, R34, R37, R43, R51/53, R68, R62

**GHS Classification:**

Health	Environmental	Physical
Eye Damage Cat. 1 (H318) Skin Corrosion Cat. 1B (H314) Skin Sensitizer Cat.1 (H317) Germ Cell Mutagen Cat. 2 (H341) Reproductive Toxicity Cat. 2 (H361)	Aquatic Acute Toxicity Cat. 2 (H401) Aquatic Chronic Toxicity Cat. 2 (H411)	Not Hazardous

**2.2 Label Elements**



**DANGER!**

H314 Causes severe skin burns and eye damage.  
 H317 May cause an allergic skin reaction.  
 H318 Causes serious eye damage.



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H341 Suspected of causing genetic defects.  
 H361 Suspected of damaging fertility or the unborn child.  
 H411 Toxic to aquatic life with long lasting effects.

**Prevention:**  
 P201 Obtain special instructions before use.  
 P202 Do not handle until all safety precautions have been read and understood.  
 P260 Do not breathe mist, vapors, or spray.  
 P264 Wash thoroughly after handling.  
 P272 Contaminated work clothing should not be allowed out of the workplace.  
 P273 Avoid release to the environment.  
 P280 Wear protective gloves, protective clothing, eye protection and face protection.

**Response:**  
 P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P310 Immediately call a POISON CENTER or doctor.  
 P303+P361+P353 IF ON SKIN (or hair): Remove immediately all contaminated clothing. Rinse skin with water.  
 P310 Immediately call a POISON CENTER or doctor.  
 P333+P313 If skin irritation or rash occurs: Get medical attention.  
 P363 Wash contaminated clothing before reuse.  
 P304+P340 IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.  
 P310 Immediately call a POISON CENTER or doctor.  
 P301+P330+P331 IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  
 P310 Immediately call a POISON CENTER or doctor.  
 P308+P313 IF exposed or concerned: Get medical advice/ attention.  
 P391 Collect spillage.

**Storage:**  
 P405 Store locked up.

**Disposal:**  
 P501 Dispose of contents/container in accordance with local and national regulations.

**2.3 Other Hazards:** None

**SECTION 3: COMPOSITION/ INFORMATION ON INGREDIENTS**

**3.1 Substances**

**Part A**

<b>Ingredient</b>	<b>CAS No. / EINECS No.</b>	<b>Percent</b>	<b>EU Classification (67/548/EEC)</b>	<b>CLP/GHS Classification (1272/2008)</b>
Bisphenol A, epichlorohydrin resin	25068-38-6 / 500-033-5	50-100%	Xi, N R36/38, R43, R51/53	Eye Irrit. 2A (H319), Skin Irrit. 2 (H315), Skin Sens.1 (H317), Aquatic Acute 2 (H401), Aquatic Chronic 2 (H411)
o-cresyl glycidyl ether	2210-79-9 / 218-645-3	10-25%	Muta. Cat. 3, Xi, N R38, R43, R51/53, R68	Muta. 2 (H341), Skin Irrit. 2 (H315), Skin Sens. 1 (H317), Aquatic Acute 2 (H401), Aquatic Chronic 2 (H411)



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**Part B**

Ingredient	CAS No. / EINECS No.	Percent	EU Classification (67/548/EEC)	CLP/GHS Classification (1272/2008)
Bisphenol A Epichlorohydrin Copolymer	Proprietary	25-50%	Xi, N R36/38, R43, R50/53	Skin Irrit. 2 (H315), Eye Irrit. 2A (H319), Skin Sens. 1 (H317), Aquatic Chronic 3 (H412).
Diethylenetriamine	111-40-0 / 203-865-4	25-50%	C, Xn R21/22, R34, R43	Acute Tox. 4 (H312, H302), Skin Corr. 1B (H314), Skin Sens. 1 (H317)
Bisphenol A	80-05-7 / 201-245-8	10-25%	Repr. Cat. 3, Xi R37, R41, R43, R62, R52	Repr. 2 (H361f), STOT SE 3 (H335), Eye Dam. 1 (H318), Skin Sens. 1 (H317)

See Section 16 for full text GHS and EU Classifications.

### SECTION 4: FIRST AID MEASURES

**4.1 Description of First Aid Measures**

**Eye Contact:** Immediately flush eye with water for at least 30 minutes while lifting the upper and lower lids. Get immediate medical attention.

**Skin Contact:** Immediately wash skin with soap and water for 30 minutes. Remove contaminated clothing and laundry before reuse. Shoes and other item that can not be decontaminated should be disposed of properly. Get medical attention.

**Inhalation:** Remove victim to fresh air. Keep victim warm. If breathing has stopped give artificial respiration. If breathing is difficult have qualified personnel administer oxygen. Get immediate medical attention.

**Ingestion:** Immediately contact a poison control center or emergency department. If medical advice cannot be obtained, then take the person and product to the nearest medical emergency treatment center or hospital. If conscious, rinse mouth out with water. Do not induce vomiting. Never give anything by mouth to a person who is unconscious or drowsy.

**See Section 11 for more detailed information on health effects.**

**4.2 Most Important symptoms and effects, both acute and delayed:** Causes severe eye and skin burns. Causes respiratory tract irritation. May cause allergic skin reaction. May cause genetic defects. May cause adverse reproductive effects.

**4.3 Indication of any immediate medical attention and special treatment needed:** Immediate medical attention is required for contact, ingestion, and inhalation overexposure.

### SECTION 5: FIRE FIGHTING PROCEDURES

**5.1 Extinguishing Media:**



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Use water fog, carbon dioxide, dry chemical or foam to extinguish the fire.

### 5.2 Special Hazards Arising from the Substance or Mixture:

**Unusual Fire and Explosion Hazards:** Not classified as flammable or combustible. May burn under fire conditions.

**Combustion Products:** Carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, chlorine, and flammable hydrocarbon fragments may be released during a fire involving these products.

**5.3 Advice for Fire-Fighters:** Firefighters should use self-contained breathing apparatus and protective clothing for all fires involving chemicals. Cool fire exposed containers with water. Closed containers may explode when exposed to heat. Fight fire from a safe distance and/or protected area. Contain fire run-off if possible to prevent environmental contamination.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

### 6.1 Personal Precautions, Protective Equipment and Emergency Procedures:

Evacuate personnel to safe areas. Ventilate area. Clean-up personnel should wear appropriate protective clothing to prevent contact with eye, skin, and clothing. Avoid breathing vapors or mists. Spilled or released material may polymerize and release heat and/or gases.

### 6.2 Environmental Precautions:

Prevent liquid from entering watercourses, sewers and natural waterways. Report spills and releases as required to appropriate authorities.

### 6.3 Methods and Material for Containment and Cleaning Up:

Contain spill and collect using inert absorbent material such as universal binders, dirt, saw dust or sand. Place in an appropriate container for disposal.

### 6.4 Reference to Other Sections:

Refer to Section 8 for personal protective equipment and Section 13 for disposal information.

## SECTION 7: HANDLING AND STORAGE

### 7.1 Precautions for Safe Handling:

Prevent contact with eyes, skin and clothing. Avoid breathing vapors. Use with adequate ventilation. Always wear impervious gloves, chemical safety goggles and protective clothing when handling this material. Wash thoroughly after handling. Do not eat, drink or smoke in the work area. Keep product away from excessive heat and open flames. Keep container closed until ready to use.

### 7.2 Conditions for Safe Storage, Including any Incompatibilities:

Store in a cool, dry, well-ventilated area away from oxidizing materials and other incompatible materials. Keep away from excessive heat and open flames. Keep containers closed when not in use. Store at 25°C (77°F) to preserve shelf-life.

Empty containers retain product residues. Follow all SDS precautions in handling empty containers. Do not reuse containers.

### 7.3 Specific end use(s):

**Industrial uses:** None identified

**Professional uses:** None identified

SDS Date of Preparation: 07/26/12



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**SECTION 8: EXPOSURE CONTROLS/ PERSONAL PROTECTION**

**8.1 Control Parameters:**

<b>Hazardous Component</b>	<b>Exposure Limits</b>
Bisphenol A, epichlorohydrin polymer	None Established
o-cresyl glycidyl ether	None Established
Bisphenol A	5 mg/m <sup>3</sup> TWA DFG MAK (Inhalable) 10 mg/m <sup>3</sup> TWA UK WEL (as inhalable dust)
Bisphenol A Epichlorohydrin Copolymer	None Established
Diethylenetriamine	1 ppm TWA ACGIH TLV (Skin) 1 ppm TWA UK WEL (Skin)

**8.2 Exposure Controls:**

**Appropriate Engineering Controls:** If the recommended exposure limit is exceeded, mechanical ventilation such as local exhaust may be required.

**Personal Protective Equipment:**

**Eye/face Protection:** Chemical splash goggles and face shield is recommended to prevent eye contact.

**Hands:** Impervious gloves such as butyl rubber are recommended to prevent skin contact.

**Skin Protection:** Impervious clothing is recommended to prevent contamination of personal clothing.

**Respiratory Protection:** None needed under normal use conditions. If the recommended exposure limit is exceeded or irritation is experienced, an approved full facepiece supplied air respirator can be used. A full facepiece respirator supplied air provides both eye and respiratory protection. Selection of respiratory protection depends on the contaminant type, form and concentration. Select in accordance with applicable regulations and good Industrial Hygiene practice.

**Other Protective:** For operations where contact can occur, a safety shower and an emergency eye wash facility should be available.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

**9.1 Information on basic Physical and Chemical Properties**

	<b>Part A</b>	<b>Part B</b>
<b>Appearance:</b>	Plastic tube filled with two liquids separated by a breakable barrier.	
	Liquid	Yellow liquid
<b>Odor:</b>	Mild odor	Amine odor
<b>Odor threshold:</b>	Not available	Not available
<b>Boiling Point:</b>	502°F / 261°C	405°F / 207°C
<b>Melting/ Freezing Point:</b>	Not available	Not available
<b>Solubility (in water):</b>	Not miscible or difficult to mix	Not miscible or difficult to mix



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<b>Vapor Pressure:</b>	Not available	0.5 hPa @ 20°C (68°F)
<b>Vapor Density (air=1):</b>	Not available	Not available
<b>Relative Density:</b>	Not available	Not available
<b>Specific Gravity:</b>	Not available	Not available
<b>Evaporation Rate:</b>	Not available	Not available
<b>pH:</b>	Not available	Not available
<b>Octanol/ Water Coefficient:</b>	Not available	Not available
<b>Percent Volatile:</b>	Not available	Not available
<b>Auto-Ignition Temperature:</b>	Not available	617°F/ 325°C
<b>Decomposition Temperature:</b>	Not available	Not available
<b>Viscosity:</b>	Not available	Not available
<b>Flash Point:</b>	480°F / 249°C	207°F / 97°C
<b>Method:</b>	Not available	Not available
<b>Flammability (solid, gas):</b>	Not applicable	Not applicable
<b>Flammable Limits:</b>		
<b>Lower Flammable Limit:</b>	Not available	1.0 vol%
<b>Upper Flammable Limit:</b>	Not available	10.0 vol%
<b>Explosive Properties:</b>	Product does not present an explosion hazard.	Not available
<b>Oxidizing Properties:</b>	Not available	Not available
<b>VOC Content:</b>	Not available	0%

**9.2 Other Information:** None available

### SECTION 10: STABILITY AND REACTIVITY

**10.1 Reactivity:** Not reactive when used and stored under recommended conditions.

**10.2 Chemical Stability:** Stable under normal storage and handling conditions.

**10.3 Possibility of Hazardous Reactions:** Hazardous polymerization may occur if mixed with amines in large masses and/ or with heat.

**10.4 Conditions to Avoid:** Avoid elevated temperatures.

**10.5 Incompatible Materials:** Avoid contact with strong acids, strong bases, strong oxidizers, amines, mercaptans, sodium hypochlorite, organic acids (i.e. acetic acid, citric acid ect.), mineral acids, nitrous acid and other nitrosating agents, and reactive metals (e.g. sodium, calcium, zinc ect.). Reaction with peroxides may result in violent decomposition of peroxide possible creating an explosion. Part B slowly corrodes copper, aluminum, zinc and galvanized surfaces. Part B is reactive with hydroxyl compounds.

**10.6 Hazardous Decomposition Products:** Thermal decomposition may produce carbon monoxide, carbon dioxide, nitrogen oxides, ammonia, aldehydes, chlorine, and flammable hydrocarbon fragments. Reaction with water vapor may form corrosive nitric acid.

### SECTION 11: TOXICOLOGICAL INFORMATION

**11.1 Information on Toxicological Effects:**

**Potential Health Effects:**



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**Eye Contact:** Contact with Part A may cause eye irritation with redness, blinking and excessive tearing. Contact with Part B may cause severe burns and permanent eye damage.

**Skin Contact:** Contact with Part A may cause skin irritation. Contact with Part B may cause severe skin irritation and burns. May cause sensitization by skin contact.

**Inhalation:** Inhalation of vapors from Part B may cause irritation to upper respiratory tract.

**Ingestion:** Swallowing Part A may cause gastrointestinal irritation. Swallowing Part B may cause burns to the mouth and throat.

**Acute Toxicity:** This product has not been tested as a whole.

Bisphenol A Epichlorohydrin Polymer	Oral rat LD50 >1,000 mg/kg Skin rabbit LD50 20 mL/kg
o-cresyl glycidyl ether	Oral rat LD50 4,000 mg/kg Inhalation rat LC50 6,090 mg/m <sup>3</sup> / 4 hours.
Bisphenol A	Oral rat LD50 3,250 mg/kg Skin rabbit LD50 3,600 mg/kg
Bisphenol A Epichlorohydrin Copolymer	No toxicity data is available
Diethylenetriamine	Oral rat LD50 1,080 mg/kg Inhalation rat LCLo 70 mg/m <sup>3</sup> /4 hours. Skin rabbit LD50 1,090 mg/kg

**Skin corrosion/irritation:** Part A is an irritant. Part B is corrosive.

**Eye damage/ irritation:** Part A is an eye irritant. Part B is damaging to the eyes.

**Respiratory Irritation:** Part B is a respiratory irritant.

**Respiratory Sensitization:** No data available.

**Skin Sensitization:** Contact with Part A or Part B may cause skin sensitization.

**Germ Cell Mutagenicity:** Part A is classified as a possible germ cell mutagen due to o-cresyl glycidyl ether.

**Carcinogenicity:** None of the components of this product at greater than 0.1% are listed as carcinogens by IARC, NTP, ACGIH, OSHA or the EU Directive.

**Reproductive Toxicity:** Part B is classified as a suspect reproductive hazard due to bisphenol A.

**Specific Target Organ Toxicity:**

Single Exposure: No data available  
Repeat Exposure: No data available.

**SECTION 12: ECOLOGICAL INFORMATION**

**12.1 Toxicity:** No ecotoxicity data is available for Part A and Part B.

This product is classified as toxic to aquatic organisms, with long-term adverse effects in the aquatic environment.

**12.2 Persistence and degradability:** No data available. Not expected to be readily biodegradable.

**12.3 Bioaccumulative Potential:** No data available



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**12.4 Mobility in Soil:** No data available

**12.5 Results of PVT and vPvB assessment:** Not required.

**12.6 Other Adverse Effects:** No data available.

<b>SECTION 13: DISPOSAL CONSIDERATIONS</b>
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**13.1 Waste Treatment Methods:**

Dispose of in accordance with local, state and national regulations.

<b>SECTION 14: TRANSPORT INFORMATION</b>
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	14.1 UN Number	14.2 UN Proper Shipping Name	14.3 Hazard Class(s)	14.4 Packing Group	14.5 Environmental Hazards
<b>US DOT</b>	UN1760	Corrosive Liquid, n.o.s. (Diethylenetriamine)	8	II	No
<b>Canadian TDG</b>	UN1760	Corrosive Liquid, n.o.s. (Diethylenetriamine)	8	II	No
<b>EU ADR/RID</b>	UN1760	Corrosive Liquid, n.o.s. (Diethylenetriamine)	8	II	Environmentally Hazardous
	UN3082	Environmentally Hazardous substance, liquid, n.o.s. (bisphenol A-(epichlorhydrin) epoxy resin)	9		
<b>IMDG</b>	UN1760	Corrosive Liquid, n.o.s. (Diethylenetriamine)	8	II	Marine Pollutant
	UN3082	Environmentally Hazardous substance, liquid, n.o.s. (bisphenol A-(epichlorhydrin) epoxy resin)	9		
<b>IATA/ICAO</b>	UN1760	Corrosive Liquid, n.o.s. (Diethylenetriamine)	8	II	Environmentally Hazardous
	UN3082	Environmentally Hazardous substance, liquid, n.o.s. (bisphenol A-(epichlorhydrin) epoxy resin)	9		

**14.6 Special Precautions for User:** This kit contains 2 Hazardous Materials. Packages must be marked with both Proper Shipping Names and UN numbers were required. This product may be shipped under excepted or limited quantity provisions of the applicable modal regulations if the packaging and quantity limitations are met. Refer to applicable regulations for further information.

**14.7 Transport in Bulk According to Annex III MARPOL 73/78 and the IBC Code:** Not applicable.

<b>SECTION 15: REGULATORY INFORMATION</b>
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**15.1 Safety, Health and Environmental Regulations/Legislation Specific for the Substance or Mixture**

**U.S. FEDERAL REGULATIONS:**



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**CERCLA 103 Reportable Quantity:** This product is not subject to CERCLA reporting requirements. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

**SARA TITLE III:**

**Hazard Category for Section 311/312:** Acute hazard, Chronic hazard

**Section 313 Toxic Chemicals:** This product contains the following chemicals subject to SARA Title III Section 313 Reporting requirements:

Bisphenol A	80-5-7	10-25%
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**Section 302 Extremely Hazardous Substances (TPQ):** None.

**EPA Toxic Substances Control Act (TSCA) Status:** All of the components of this product are listed on the TSCA inventory.

**STATE REGULATIONS:**

**California Proposition 65:** This product contains the following chemicals known to the State of California to cause cancer or reproductive toxicity: None

**INTERNATIONAL REGULATIONS:**

**Canadian Environmental Protection Act:** All of the components of this product are listed on the Canadian Domestic Substances List.

**CANADIAN WHMIS CLASSIFICATION:** Class E (Corrosive), Class D-2-B



**Canadian WHMIS Hazard Symbols:**

This product has been classified in accordance with the hazard criteria in the CPR and the MSDS contains all the information required by the CPR.

**EUROPEAN INVENTORY OF COMMERCIAL CHEMICAL SUBSTANCES:** All of the components of this product are listed on the EINECS Inventory.

**16. OTHER INFORMATION**

<b>NFPA RATING:</b>	Health = 3	Fire = 1	Instability = 0	Special: None
<b>HMIS RATING:</b>	Health = 3	Fire = 1	Physical Hazard = 0	

**EU Classes and Risk Phrases for Reference (See Sections 2 and 3):**

C Corrosive  
Muta. Cat. 2 Mutagen Category 2  
N Dangerous for the Environment  
Repro. Cat. 3 Reproductive Toxicity Category 3  
Xi Irritant

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Xn Harmful

R21/22 Harmful if swallowed.

R34 Causes burns.

R36/38 Irritating to eyes and skin.

R37 Irritating to respiratory system.

R38 Irritating to the skin.

R41 Risk of serious damage to eyes.

R43 May cause sensitization by skin contact.

R52 Harmful to aquatic organisms.

R62 Possible risk of impaired fertility.

R68 Possible risk of irreversible effects.

R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**CLP/GHS Classification and H Phrases for Reference (See Sections 3):**

Acute Tox. 4 Acute Toxicity Category 4

Aquatic Acute 2 Aquatic Acute Toxicity Category 2

Aquatic Chronic 2 Aquatic Chronic Toxicity Category 2

Aquatic Chronic 3 Aquatic Chronic Toxicity Category 3

Eye Dam. 1 Eye Damage Category 1

Eye Irrit. 2A Eye Irritant Category 2A

Muta. 2 Germ Cell Mutagenicity Category 2

Repr. 2 Reproductive Toxicity Category 2

Skin Corr. 1B Skin Corrosion Category 1B

Skin Irrit. 2 Skin Irritant Category 2

Skin Sens. 1 Skin Sensitization Category 1

STOT SE 3 Specific Target Organ Toxicity Single Exposure Category 3

H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin and eye damage.

H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

H341 Suspected of causing genetic defects.

H361f Suspected of damaging fertility.

H401 Toxic to aquatic life.

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.