

# Material Safety Data Sheet



## Torr Seal/Hysol IC A/B

### 1. Product and company identification

<b>Product name</b>	: Torr Seal/Hysol IC A/B	
<b>Material uses</b>	: Analytical chemistry. Part A - RESIN Part B - HARDENER	
<b>Supplier/Manufacturer</b>	: Agilent Technologies, Inc. Logistics Center - Americas 500 Ships Landing Way New Castle, Delaware 19720 800-227-9770	
<b>Part No. (Chemical Kit)</b>	: 9530001_9530002_9530004	
<b>Part No.</b>	: Part A - RESIN	Part A
	: Part B - HARDENER	Part B
<b>Validation date</b>	: 08/04/2011	
<b>In case of emergency</b>	: Chemtrec: 1-800-424-9300	

### 2. Hazards identification

<b>Physical state</b>	: Part A - RESIN Part B - HARDENER	Liquid. [Viscous liquid.] Liquid. [Viscous liquid.]
<b>Odor</b>	: Part A - RESIN Part B - HARDENER	Mild. Ammoniacal.
<b>OSHA/HCS status</b>	: Part A - RESIN  Part B - HARDENER	This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200). This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).
<b>Emergency overview</b>		
<b>Signal word</b>	: Part A - RESIN Part B - HARDENER	WARNING! DANGER!
<b>Hazard statements</b>	: Part A - RESIN  Part B - HARDENER	CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. CAUSES RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER. POSSIBLE REPRODUCTIVE HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS IN MALES, BASED ON ANIMAL DATA.
<b>Precautions</b>	:	

## 2. Hazards identification

	Part A - RESIN	Do not breathe vapor or mist. Do not get on skin or clothing. Avoid contact with eyes. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
	Part B - HARDENER	Avoid exposure - obtain special instructions before use. Do not breathe vapor or mist. Do not ingest. Do not get in eyes or on skin or clothing. Avoid exposure during pregnancy. Use only with adequate ventilation. Keep container tightly closed and sealed until ready for use. Wash thoroughly after handling.
<b>Routes of entry</b>	: Part A - RESIN Part B - HARDENER	Not available. Not available.
<b><u>Potential acute health effects</u></b>		
<b>Inhalation</b>	: Part A - RESIN Part B - HARDENER	Irritating to respiratory system. Corrosive to the respiratory system. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
<b>Ingestion</b>	: Part A - RESIN Part B - HARDENER	No known significant effects or critical hazards. Harmful if swallowed. Corrosive to the digestive tract. Causes burns.
<b>Skin</b>	: Part A - RESIN  Part B - HARDENER	Irritating to skin. May cause sensitization by skin contact. Corrosive to the skin. Causes burns. Harmful in contact with skin. May cause sensitization by skin contact.
<b>Eyes</b>	: Part A - RESIN Part B - HARDENER	Irritating to eyes. Corrosive to eyes. Causes burns.
<b><u>Potential chronic health effects</u></b>		
<b>Chronic effects</b>	: Part A - RESIN  Part B - HARDENER	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Contains material that may cause target organ damage, based on animal data. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: Part A - RESIN Part B - HARDENER	No known significant effects or critical hazards. Contains material which may cause cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	: Part A - RESIN Part B - HARDENER	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Teratogenicity</b>	: Part A - RESIN Part B - HARDENER	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Developmental effects</b>	: Part A - RESIN Part B - HARDENER	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Fertility effects</b>	: Part A - RESIN Part B - HARDENER	No known significant effects or critical hazards. Contains material which may impair male fertility, based on animal data.
<b>Target organs</b>	: Part A - RESIN Part B - HARDENER	Not available. Contains material which may cause damage to the following organs: kidneys, lungs, liver, gastrointestinal tract, upper respiratory tract, skin, eye, lens or cornea, testes.

## 2. Hazards identification

### Over-exposure signs/symptoms

<b>Inhalation</b>	: Part A - RESIN	Adverse symptoms may include the following: respiratory tract irritation coughing
	Part B - HARDENER	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
<b>Ingestion</b>	: Part A - RESIN	No specific data.
	Part B - HARDENER	Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin</b>	: Part A - RESIN	Adverse symptoms may include the following: irritation redness
	Part B - HARDENER	Adverse symptoms may include the following: pain or irritation redness blistering may occur reduced fetal weight increase in fetal deaths skeletal malformations
<b>Eyes</b>	: Part A - RESIN	Adverse symptoms may include the following: pain or irritation watering redness
	Part B - HARDENER	Adverse symptoms may include the following: pain watering redness reduced fetal weight increase in fetal deaths skeletal malformations
<b>Medical conditions aggravated by over-exposure</b>	: Part A - RESIN	Pre-existing skin disorders may be aggravated by over-exposure to this product.
	Part B - HARDENER	Pre-existing skin disorders and disorders involving any other target organs mentioned in this MSDS as being at risk may be aggravated by over-exposure to this product.

See toxicological information (Section 11)

## 3. Composition/information on ingredients

Name	CAS number	%
<b>Part A - RESIN</b> Reaction product: Bisphenol-A-(Epichlorhydrin); epoxy resin	25068-38-6	30 - 60
<b>Part B - HARDENER</b> Quartz (SiO <sub>2</sub> )	14808-60-7	10 - 30
2,2'-Iminodiethylamine	111-40-0	10 - 30
Bisphenol A	80-05-7	1 - 5

### 3. Composition/information on ingredients

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

### 4. First aid measures

<b>Eye contact</b>	: Part A - RESIN	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
	Part B - HARDENER	Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.
<b>Skin contact</b>	: Part A - RESIN	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
	Part B - HARDENER	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Get medical attention immediately.
<b>Inhalation</b>	: Part A - RESIN	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
	Part B - HARDENER	Move exposed person to fresh air. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately.
<b>Ingestion</b>	: Part A - RESIN	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
	Part B - HARDENER	Wash out mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.
<b>Protection of first-aiders</b>	: Part A - RESIN	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.
	Part B - HARDENER	No action shall be taken involving any personal risk or without suitable training. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. It may be dangerous to the person

## 4. First aid measures

**Notes to physician** : Part A - RESIN  
Part B - HARDENER

providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## 5. Fire-fighting measures

**Flammability of the product** : Part A - RESIN  
Part B - HARDENER

In a fire or if heated, a pressure increase will occur and the container may burst.

In a fire or if heated, a pressure increase will occur and the container may burst.

### Extinguishing media

**Suitable** : Part A - RESIN  
Part B - HARDENER

Use an extinguishing agent suitable for the surrounding fire.

Use an extinguishing agent suitable for the surrounding fire.

**Not suitable** : Part A - RESIN  
Part B - HARDENER

None known.

None known.

**Special exposure hazards** : Part A - RESIN  
Part B - HARDENER

No action shall be taken involving any personal risk or without suitable training.

No action shall be taken involving any personal risk or without suitable training.

**Hazardous thermal decomposition products** : Part A - RESIN

Decomposition products may include the following materials:

carbon dioxide  
carbon monoxide  
halogenated compounds

Part B - HARDENER

Decomposition products may include the following materials:

carbon dioxide  
carbon monoxide  
nitrogen oxides  
metal oxide/oxides

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## 6. Accidental release measures

**Personal precautions** : Part A - RESIN

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Part B - HARDENER

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Do not breathe vapor or mist. Provide adequate ventilation. Wear

## 6. Accidental release measures

appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

**Environmental precautions** : Part A - RESIN

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

Part B - HARDENER

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods for cleaning up** : Part A - RESIN

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Part B - HARDENER

Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

## 7. Handling and storage

**Handling** : Part A - RESIN

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

Part B - HARDENER

Put on appropriate personal protective equipment (see Section 8). Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. Persons with a history of skin sensitization problems should not be employed in any process in which this product is used. Avoid exposure - obtain special instructions before use. Do not get in eyes or on skin or clothing. Do not breathe vapor or mist. Do not ingest. Use only with

## 7. Handling and storage

adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container.

**Storage** : Part A - RESIN

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

Part B - HARDENER

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## 8. Exposure controls/personal protection

Ingredient	Exposure limits
Part B - HARDENER Quartz (SiO <sub>2</sub> )  2,2'-Iminodiethylamine	<p><b>OSHA PEL 1989 (United States, 3/1989). Notes: as quartz</b>            TWA: 0.1 mg/m<sup>3</sup>, (as quartz) 8 hour(s). Form: Respirable dust</p> <p><b>ACGIH TLV (United States, 2/2010).</b>            TWA: 0.025 mg/m<sup>3</sup> 8 hour(s). Form: Respirable fraction</p> <p><b>NIOSH REL (United States, 6/2009).</b>            TWA: 0.05 mg/m<sup>3</sup> 10 hour(s). Form: respirable dust</p> <p><b>ACGIH TLV (United States, 2/2010). Absorbed through skin.</b>            TWA: 1 ppm 8 hour(s).            TWA: 4.2 mg/m<sup>3</sup> 8 hour(s).</p> <p><b>OSHA PEL 1989 (United States, 3/1989).</b>            TWA: 1 ppm 8 hour(s).            TWA: 4 mg/m<sup>3</sup> 8 hour(s).</p> <p><b>NIOSH REL (United States, 6/2009). Absorbed through skin.</b>            TWA: 1 ppm 10 hour(s).            TWA: 4 mg/m<sup>3</sup> 10 hour(s).</p>

**Recommended monitoring procedures** : If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Engineering measures** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

## 8. Exposure controls/personal protection

- Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Personal protection**
- Respiratory** : Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
- Hands** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Eyes** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists or dusts.
- Skin** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Other protection** : Not available.

## 9. Physical and chemical properties

- |                                   |                                       |   |
|-----------------------------------|---------------------------------------|---|
| <b>Physical state</b>             | : Part A - RESIN<br>Part B - HARDENER | Liquid. [Viscous liquid.]<br>Liquid. [Viscous liquid.]      |
| <b>Flash point</b>                | : Part A - RESIN<br>Part B - HARDENER | Open cup: >93°C (>199.4°F)<br>Open cup: >101.6°C (>214.9°F) |
| <b>Auto-ignition temperature</b>  | : Part A - RESIN<br>Part B - HARDENER | Not available.<br>Not available.                            |
| <b>Flammable limits</b>           | : Part A - RESIN<br>Part B - HARDENER | Not available.<br>Not available.                            |
| <b>Color</b>                      | : Part A - RESIN<br>Part B - HARDENER | White.<br>Beige.  |
| <b>Odor</b>                       | : Part A - RESIN<br>Part B - HARDENER | Mild.<br>Ammoniacal.  |
| <b>pH</b>                         | : Part A - RESIN<br>Part B - HARDENER | Not available.<br>>7  |
| <b>Boiling/condensation point</b> | : Part A - RESIN<br>Part B - HARDENER | >150°C (>302°F)<br>207°C (404.6°F)                          |
| <b>Melting/freezing point</b>     | : Part A - RESIN<br>Part B - HARDENER | Not available.<br>Not available.                            |
| <b>Specific gravity</b>           | : Part A - RESIN<br>Part B - HARDENER | 1.57<br>1.65  |
| <b>Vapor pressure</b>             | : Part A - RESIN<br>Part B - HARDENER | Not available.<br>Not available.                            |
| <b>Vapor density</b>              | : Part A - RESIN<br>Part B - HARDENER | Not available.<br>Not available.                            |
| <b>Volatility</b>                 | : Part A - RESIN<br>Part B - HARDENER | 0% (w/w)<br>11% (w/w)                                       |



## 9. Physical and chemical properties

<b>Odor threshold</b>	: Part A - RESIN Part B - HARDENER	Not available. Not available.
<b>Evaporation rate</b>	: Part A - RESIN Part B - HARDENER	Not available. Not available.
<b>Viscosity</b>	: Part A - RESIN Part B - HARDENER	Not available. Not available.
<b>Solubility</b>	: Part A - RESIN  Part B - HARDENER	Very slightly soluble in the following materials: acetone. Insoluble in the following materials: cold water and hot water. Partially soluble in the following materials: cold water and hot water.

## 10. Stability and reactivity

<b>Chemical stability</b>	: Part A - RESIN Part B - HARDENER	The product is stable. The product is stable.
<b>Conditions to avoid</b>	: Part A - RESIN Part B - HARDENER	No specific data. No specific data.
<b>Materials to avoid</b>	: Part A - RESIN Part B - HARDENER	No specific data. No specific data.
<b>Hazardous decomposition products</b>	: Part A - RESIN  Part B - HARDENER	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Under normal conditions of storage and use, hazardous decomposition products should not be produced.
<b>Possibility of hazardous reactions</b>	: Part A - RESIN  Part B - HARDENER	Under normal conditions of storage and use, hazardous reactions will not occur. Under normal conditions of storage and use, hazardous reactions will not occur.

## 11. Toxicological information

### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Part B - HARDENER</b> 2,2'-Iminodiethylamine	LD50 Dermal	Rabbit	1090 mg/kg	-
	LD50 Oral	Rat	1080 mg/kg	-
Bisphenol A	LD50 Oral	Rat	1200 mg/kg	-

### Chronic toxicity

**Conclusion/Summary** : Not available.

### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Part A - RESIN</b> Reaction product: Bisphenol-A-(Epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 milligrams	-
	Eyes - Moderate irritant	Rabbit	-	24 hours 20 milligrams	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 microliters	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 milligrams	-

## 11. Toxicological information

<b>Part B - HARDENER</b> 2,2'-Iminodiethylamine	Skin - Moderate irritant	Rabbit	-	500 milligrams	-
Bisphenol A	Eyes - Severe irritant	Rabbit	-	24 hours 250 Micrograms	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 milligrams	-
	Skin - Mild irritant	Rabbit	-	250 milligrams	-

### Sensitizer

**Conclusion/Summary** : Not available.

### Carcinogenicity

#### Classification

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
<b>Part B - HARDENER</b> Quartz (SiO <sub>2</sub> )	A2	1	-	+	Proven.	-

### Mutagenicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

**Other adverse symptoms** : Part A - RESIN Not available.  
Part B - HARDENER Not available.

## 12. Ecological information

**Ecotoxicity** : This material is toxic to aquatic life with long lasting effects.

### Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
<b>Part B - HARDENER</b> 2,2'-Iminodiethylamine	Acute EC50 345600 ug/L Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
Bisphenol A	Acute LC50 53500 ug/L Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 332 mg/l Fresh water	Fish	96 hours
	Chronic NOEC 5.6 mg/l	Daphnia	21 days
	Chronic NOEC 10 mg/l Marine water	Fish	28 days
	Acute EC50 1000 ug/L Marine water	Algae - Skeletonema costatum	96 hours
	Acute EC50 7.75 mg/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	48 hours
	Acute LC50 1.34 mg/L Marine water	Crustaceans - Americamysis bahia - Larvae - 24 hours	48 hours
	Acute LC50 4600 ug/L Fresh water	Fish - Pimephales promelas	96 hours
	Chronic NOEC 0.8 mg/L Fresh water	Daphnia - Daphnia magna - Neonate - <24 hours	21 days
Chronic NOEC 0.2 to 20 ppb Fresh water	Fish - Xiphophorus helleri - Juvenile (Fledgling, Hatchling, Weanling) - 30 days	60 days	

### Persistence/degradability

Product/ingredient name	Test	Result	Dose	Inoculum

## 12. Ecological information

Part B - HARDENER 2,2'-Iminodiethylamine	-	80 to 90 % - Inherent - 30 days	-	20 mg/l Activated sludge
Bisphenol A	OECD 301 301F Ready Biodegradability - Manometric Respirometry Test	>=76 % - Readily - 28 days	-	25 mg/l Activated sludge

**Partition coefficient: n-octanol/water** : Part A - RESIN Not available.  
Part B - HARDENER Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## 13. Disposal considerations

**Waste disposal** : The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

**RCRA classification** : Part A - RESIN Not available.  
Part B - HARDENER Not available.

Disposal should be in accordance with applicable regional, national and local laws and regulations. Local regulations may be more stringent than regional or national requirements.





The information presented below only applies to the material as supplied. The identification based on characteristic(s) or listing may not apply if the material has been used or otherwise contaminated. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste identification and disposal methods in compliance with applicable regulations.

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## 14. Transport information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label	Additional information
DOT	UN3316	Chemical kits. Marine pollutant (Reaction product: Bisphenol-A-(Epichlorhydrin); epoxy resin)	9	II		<p><b>Limited quantity</b> Yes.</p> <p><b>Packaging instruction</b> <b>Passenger aircraft</b> Quantity limitation: 10 kg</p> <p><b>Cargo aircraft</b> Quantity limitation: 10 kg</p> <p><b>Special provisions</b></p>

## 14. Transport information

						15
<b>IMDG</b>	UN3316	CHEMICAL KIT. Marine pollutant (Reaction product: Bisphenol-A- (Epichlorhydrin); epoxy resin, Bisphenol A)	9	II	 	<b>Emergency schedules (EmS)</b> F-A, _S-P_
<b>IATA</b>	UN3316	Chemical kit	9	II	 	<b>Passenger and Cargo Aircraft</b> Quantity limitation: 10 kg Packaging instructions: 960 <b>Cargo Aircraft Only</b> Quantity limitation: 10 kg Packaging instructions: 960 <b>Limited Quantities - Passenger Aircraft</b> Quantity limitation: 1 kg Packaging instructions: Y960

PG\* : Packing group

## 15. Regulatory information

**HCS Classification** : Part A - RESIN Irritating material  
Sensitizing material  
Part B - HARDENER Corrosive material  
Sensitizing material  
Carcinogen  
Target organ effects

**U.S. Federal regulations** : TSCA 8(a) IUR: Partial exemption

**United States inventory (TSCA 8b)**: All components are listed or exempted.

**SARA 302/304/311/312 extremely hazardous substances**: No products were found.

**SARA 302/304 emergency planning and notification**: No products were found.

**SARA 302/304/311/312 hazardous chemicals**: Reaction product: Bisphenol-A-  
(Epichlorhydrin); epoxy resin; Quartz (SiO<sub>2</sub>); 2,2'-Iminodiethylamine; Bisphenol A

**SARA 311/312 MSDS distribution - chemical inventory - hazard identification**:

Reaction product: Bisphenol-A-(Epichlorhydrin); epoxy resin: Immediate (acute) health hazard; Quartz (SiO<sub>2</sub>): Immediate (acute) health hazard, Delayed (chronic) health hazard; 2,2'-Iminodiethylamine: Immediate (acute) health hazard; Bisphenol A: Immediate (acute) health hazard, Delayed (chronic) health hazard

**Clean Air Act Section 112(b) Hazardous Air Pollutants (HAPs)** : Not listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

## 15. Regulatory information

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 313

	Product name	CAS number	Concentration
<b>Form R - Reporting requirements</b>	<b>Part B - HARDENER</b> Bisphenol A	80-05-7	1 - 5
<b>Supplier notification</b>	<b>Part B - HARDENER</b> Bisphenol A	80-05-7	1 - 5

SARA 313 notifications must not be detached from the MSDS and any copying and redistribution of the MSDS shall include copying and redistribution of the notice attached to copies of the MSDS subsequently redistributed.

### State regulations

**Massachusetts** : The following components are listed: SILICA, CRYSTALLINE, QUARTZ; DIETHYLENE TRIAMINE; 4,4'-ISOPROPYLIDENEDIPHENOL

**New York** : None of the components are listed.

**New Jersey** : The following components are listed: SILICA, QUARTZ; QUARTZ (SiO<sub>2</sub>); DIETHYLENE TRIAMINE; 1,2-ETHANEDIAMINE, N-(2-AMINOETHYL)-; BISPHENOL A; 4,4'-ISOPROPYLIDENEDIPHENOL

**Pennsylvania** : The following components are listed: QUARTZ (SiO<sub>2</sub>); 1,2-ETHANEDIAMINE, N-(2-AMINOETHYL)-; 4,4'-ISOPROPYLIDENEDIPHENOL

### California Prop. 65

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
<b>Part B - HARDENER</b> Quartz (SiO <sub>2</sub> )	Yes.	No.	No.	No.

## 16. Other information

**Label requirements** : Part A - RESIN CAUSES RESPIRATORY TRACT, EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION.

Part B - HARDENER CAUSES RESPIRATORY TRACT, DIGESTIVE TRACT, EYE AND SKIN BURNS. MAY CAUSE ALLERGIC SKIN REACTION. MAY BE HARMFUL IF ABSORBED THROUGH SKIN OR IF SWALLOWED. CONTAINS MATERIAL THAT MAY CAUSE TARGET ORGAN DAMAGE, BASED ON ANIMAL DATA. SUSPECT CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER. POSSIBLE REPRODUCTIVE HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE ADVERSE REPRODUCTIVE EFFECTS IN MALES, BASED ON ANIMAL DATA.

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**Date of previous issue** : No previous validation.

**Version** : 1

☑ Indicates information that has changed from previously issued version.

### Notice to reader

## **16. Other information**

**Disclaimer:** The information contained in this document is based on Agilent's state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.