

# SAFETY DATA SHEET



Torr Seal, Part Number 9530001

## Section 1. Identification

### 1.1 Product identifier

**Product name** : Torr Seal, Part Number 9530001  
**Part no. (chemical kit)** : 9530001  
**Part no.** : Agilent Torr Seal - part A - Epoxy Resin Not available.  
 Agilent Torr Seal - part B - Hardener Not available.  
**Validation date** : 4/3/2024

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

**Identified uses** : Analytical chemistry.  
 Sealants and adhesives  
 Agilent Torr Seal - part A - Epoxy Resin Tube  
 69.5 ml - 95 gr  
 Agilent Torr Seal - part B - Hardener Tube  
 27.88 ml - 46 gr

### 1.3 Details of the supplier of the safety data sheet

**Supplier/Manufacturer** : Agilent Technologies, Inc.  
 5301 Stevens Creek Blvd  
 Santa Clara, CA 95051, USA  
 800-227-9770

### 1.4 Emergency telephone number

**In case of emergency** : CHEMTREC®: 1-800-424-9300

## Section 2. Hazards identification

### 2.1 Classification of the substance or mixture

**OSHA/HCS status** : Agilent Torr Seal - part A - Epoxy Resin This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).  
 Agilent Torr Seal - part B - Hardener This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

### Classification of the substance or mixture

#### Agilent Torr Seal - part A - Epoxy Resin

H315 SKIN IRRITATION - Category 2  
 H319 EYE IRRITATION - Category 2A  
 H317 SKIN SENSITIZATION - Category 1  
 H351 CARCINOGENICITY - Category 2  
 H335 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3  
 H411 AQUATIC HAZARD (LONG-TERM) - Category 2

#### Agilent Torr Seal - part B - Hardener

H330 ACUTE TOXICITY (inhalation) - Category 2  
 H314 SKIN CORROSION - Category 1B  
 H319 EYE IRRITATION - Category 2A  
 H317 SKIN SENSITIZATION - Category 1  
 H350 CARCINOGENICITY - Category 1A  
 H360 TOXIC TO REPRODUCTION - Category 1B  
 H372 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1

## Section 2. Hazards identification

H411	AQUATIC HAZARD (LONG-TERM) - Category 2	
<b>Ingredients of unknown toxicity</b>	: Agilent Torr Seal - part B - Hardener	Percentage of the mixture consisting of ingredient (s) of unknown acute inhalation toxicity: 10 - 30%
	: Agilent Torr Seal - part A - Epoxy Resin	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 5%
	: Agilent Torr Seal - part B - Hardener	Percentage of the mixture consisting of ingredient (s) of unknown hazards to the aquatic environment: 19.8%

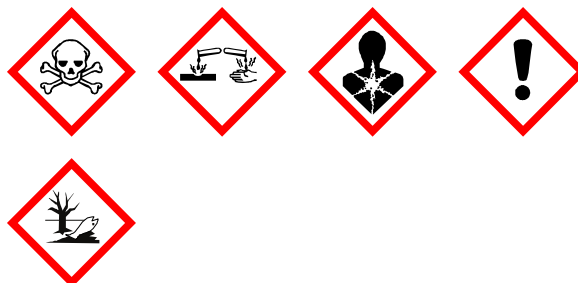
### 2.2 GHS label elements

#### Hazard pictograms

: Agilent Torr Seal - part A - Epoxy Resin



: Agilent Torr Seal - part B - Hardener



#### Signal word

: Agilent Torr Seal - part A - Epoxy Resin Warning  
 Agilent Torr Seal - part B - Hardener Danger

#### Hazard statements

: Agilent Torr Seal - part A - Epoxy Resin H315 - Causes skin irritation.  
 H317 - May cause an allergic skin reaction.  
 H319 - Causes serious eye irritation.  
 H335 - May cause respiratory irritation.  
 H351 - Suspected of causing cancer.  
 H411 - Toxic to aquatic life with long lasting effects.

: Agilent Torr Seal - part B - Hardener H314 - Causes severe skin burns and eye damage.  
 H317 - May cause an allergic skin reaction.  
 H330 - Fatal if inhaled.  
 H350 - May cause cancer.  
 H360 - May damage fertility or the unborn child.  
 H372 - Causes damage to organs through prolonged or repeated exposure.  
 H411 - Toxic to aquatic life with long lasting effects.

#### Precautionary statements

##### Prevention

: Agilent Torr Seal - part A - Epoxy Resin P201 - Obtain special instructions before use.  
 P280 - Wear protective gloves, protective clothing and eye or face protection.  
 P273 - Avoid release to the environment.  
 P261 - Avoid breathing vapor.  
 P264 - Wash thoroughly after handling.

: Agilent Torr Seal - part B - Hardener P201 - Obtain special instructions before use.  
 P280 - Wear protective gloves, protective clothing and eye or face protection.

## Section 2. Hazards identification

### Response

: Agilent Torr Seal - part A - Epoxy Resin

P284 - In case of inadequate ventilation wear respiratory protection.  
 P273 - Avoid release to the environment.  
 P260 - Do not breathe vapor.  
 P270 - Do not eat, drink or smoke when using this product.

P391 - Collect spillage.

P308 + P313 - IF exposed or concerned: Get medical advice or attention.  
 P304 + P312 - IF INHALED: Call a POISON CENTER or doctor if you feel unwell.  
 P362 + P364 - Take off contaminated clothing and wash it before reuse.  
 P363 - Wash contaminated clothing before reuse.  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 - If eye irritation persists: Get medical advice or attention.  
 P391 - Collect spillage.

Agilent Torr Seal - part B - Hardener

P308 + P313 - IF exposed or concerned: Get medical advice or attention.  
 P304 + P340, P310 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor.  
 P301 + P310, P330, P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor. Rinse mouth. Do NOT induce vomiting.  
 P303 + P361 + P353, P310 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. Immediately call a POISON CENTER or doctor.  
 P363 - Wash contaminated clothing before reuse.  
 P302 + P352 - IF ON SKIN: Wash with plenty of water.  
 P333 + P313 - If skin irritation or rash occurs: Get medical advice or attention.  
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
 P337 + P313 - If eye irritation persists: Get medical advice or attention.

### Storage

: Agilent Torr Seal - part A - Epoxy Resin  
 Agilent Torr Seal - part B - Hardener

P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
 Not applicable.

### Disposal

:

## Section 2. Hazards identification

	Agilent Torr Seal - part A - Epoxy Resin	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
	Agilent Torr Seal - part B - Hardener	P501 - Dispose of contents and container in accordance with all local, regional, national and international regulations.
<b>Supplemental label elements</b>	: Agilent Torr Seal - part A - Epoxy Resin	Do not handle until all safety precautions have been read and understood. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
	Agilent Torr Seal - part B - Hardener	Do not handle until all safety precautions have been read and understood. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Do not breathe vapor or spray. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.
<b>2.3 Other hazards</b>		
<b>Hazards not otherwise classified</b>	: Agilent Torr Seal - part A - Epoxy Resin	Polymerization is exothermic and can degenerate into an uncontrolled reaction.
	Agilent Torr Seal - part B - Hardener	Polymerization is exothermic and can degenerate into an uncontrolled reaction. Causes respiratory tract burns. Causes digestive tract burns.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Agilent Torr Seal - part A - Epoxy Resin	Mixture
	Agilent Torr Seal - part B - Hardener	Mixture

Ingredient name	%	CAS number
<b>Agilent Torr Seal - part A - Epoxy Resin</b>		
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	≥25 - ≤50	25068-38-6
Phenol, polymer with formaldehyde, glycidyl ether	≥10 - ≤25	28064-14-4
Titanium dioxide	≤10	13463-67-7
2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane	<1	2095-03-6
<b>Agilent Torr Seal - part B - Hardener</b>		
2,2'-Iminodiethylamine	≥10 - ≤25	111-40-0
crystalline silica, respirable powder	≥10 - ≤25	14808-60-7
Bisphenol A	<2.5	80-05-7
2-piperazin-1-ylethylamine	<1	140-31-8
2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane	<1	3388-04-3

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified and hence require reporting in this section.**

Occupational exposure limits, if available, are listed in Section 8.

## Section 4. First aid measures

### 4.1 Description of necessary first aid measures

<b>Eye contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.
	Agilent Torr Seal - part B - Hardener	Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician.
<b>Inhalation</b>	: Agilent Torr Seal - part A - Epoxy Resin	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
	Agilent Torr Seal - part B - Hardener	Get medical attention immediately. Call a poison center or physician. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. 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.
<b>Skin contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to rinse for at least 10 minutes. Get medical attention. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Agilent Torr Seal - part B - Hardener	Get medical attention immediately. Call a poison center or physician. Wash with plenty of soap and water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing it, or wear gloves. Continue to

## Section 4. First aid measures

<b>Ingestion</b>	: Agilent Torr Seal - part A - Epoxy Resin	rinse for at least 10 minutes. Chemical burns must be treated promptly by a physician. In the event of any complaints or symptoms, avoid further exposure. Wash clothing before reuse. Clean shoes thoroughly before reuse.
	Agilent Torr Seal - part B - Hardener	Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention immediately. Call a poison center or physician. Wash out mouth with water. Remove dentures if any. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Chemical burns must be treated promptly by a physician. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### 4.2 Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Causes serious eye irritation.
	Agilent Torr Seal - part B - Hardener	Causes serious eye irritation.
<b>Inhalation</b>	: Agilent Torr Seal - part A - Epoxy Resin	May cause respiratory irritation.
	Agilent Torr Seal - part B - Hardener	Fatal if inhaled. Corrosive to the respiratory system.
<b>Skin contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Causes skin irritation. May cause an allergic skin reaction.
	Agilent Torr Seal - part B - Hardener	Causes severe burns. May cause an allergic skin reaction.
<b>Ingestion</b>	: Agilent Torr Seal - part A - Epoxy Resin	No known significant effects or critical hazards.
	Agilent Torr Seal - part B - Hardener	May cause burns to mouth, throat and stomach. Corrosive to the digestive tract. Causes burns.

#### Over-exposure signs/symptoms

## Section 4. First aid measures

<b>Eye contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Adverse symptoms may include the following: pain or irritation watering redness
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: Agilent Torr Seal - part A - Epoxy Resin	Adverse symptoms may include the following: respiratory tract irritation coughing
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Adverse symptoms may include the following: irritation redness
	: Agilent Torr Seal - 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>Ingestion</b>	: Agilent Torr Seal - part A - Epoxy Resin	No specific data.
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: Agilent Torr Seal - part A - Epoxy Resin	Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
	: Agilent Torr Seal - part B - Hardener	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.
<b>Specific treatments</b>	: Agilent Torr Seal - part A - Epoxy Resin	No specific treatment.
	: Agilent Torr Seal - part B - Hardener	No specific treatment.



## Section 4. First aid measures

<b>Protection of first-aiders</b>	: Agilent Torr Seal - part A - Epoxy 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.
	Agilent Torr Seal - 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 providing aid to give mouth-to-mouth resuscitation. Wash contaminated clothing thoroughly with water before removing it, or wear gloves.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### 5.1 Extinguishing media

<b>Suitable extinguishing media</b>	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	Use an extinguishing agent suitable for the surrounding fire. Use an extinguishing agent suitable for the surrounding fire.
<b>Unsuitable extinguishing media</b>	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	None known. None known.

### 5.2 Special hazards arising from the substance or mixture

<b>Specific hazards arising from the chemical</b>	: Agilent Torr Seal - part A - Epoxy Resin  Agilent Torr Seal - part B - Hardener	Polymerization is exothermic and can degenerate into an uncontrolled reaction. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Polymerization is exothermic and can degenerate into an uncontrolled reaction. In a fire or if heated, a pressure increase will occur and the container may burst. This material is toxic to aquatic life with long lasting effects. Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain.
<b>Hazardous thermal decomposition products</b>	: Agilent Torr Seal - part A - Epoxy Resin  Agilent Torr Seal - part B - Hardener	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides



## Section 5. Fire-fighting measures

### 5.3 Advice for firefighters

<b>Special protective actions for fire-fighters</b>	: Agilent Torr Seal - part A - Epoxy Resin	Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
	Agilent Torr Seal - part B - Hardener	
<b>Special protective equipment for fire-fighters</b>	: Agilent Torr Seal - part A - Epoxy Resin	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
	Agilent Torr Seal - part B - Hardener	

## Section 6. Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

<b>For non-emergency personnel</b>	: Agilent Torr Seal - part A - Epoxy 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. 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. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapor or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	Agilent Torr Seal - part B - Hardener	
<b>For emergency responders</b>	: Agilent Torr Seal - part A - Epoxy Resin	If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".
	Agilent Torr Seal - part B - Hardener	

## Section 6. Accidental release measures

<b>6.2 Environmental precautions</b>	: Agilent Torr Seal - part A - Epoxy 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.
	Agilent Torr Seal - 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). Water polluting material. May be harmful to the environment if released in large quantities. Collect spillage.

### 6.3 Methods and materials for containment and cleaning up

<b>Methods for cleaning up</b>	: Agilent Torr Seal - part A - Epoxy Resin	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.
	Agilent Torr Seal - part B - Hardener	Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. 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.

## Section 7. Handling and storage

### 7.1 Precautions for safe handling

<b>Protective measures</b>	: Agilent Torr Seal - part A - Epoxy Resin	Put on appropriate personal protective equipment (see Section 8). 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 handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing vapor or mist. Avoid release to the environment. 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. Store and use away from heat, sparks, open flame or any other ignition source. Empty containers retain product residue and can be hazardous. Do not reuse container.
	Agilent Torr Seal - part B - Hardener	Put on appropriate personal protective equipment (see Section 8). 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. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or

## Section 7. Handling and storage

### Advice on general occupational hygiene

: Agilent Torr Seal - part A - Epoxy Resin

clothing. Do not breathe vapor or mist. Do not ingest. Avoid release to the environment. 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. Store and use away from heat, sparks, open flame or any other ignition source. Empty containers retain product residue and can be hazardous. Do not reuse container.

Agilent Torr Seal - part B - Hardener

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. See also Section 8 for additional information on hygiene measures. 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. See also Section 8 for additional information on hygiene measures.

### 7.2 Conditions for safe storage, including any incompatibilities

: Agilent Torr Seal - part A - Epoxy Resin

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. 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. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

Agilent Torr Seal - part B - Hardener

Store in accordance with local regulations. Store in a cool, well-ventilated area away from incompatible materials and ignition sources. 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. Store locked up. 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. See Section 10 for incompatible materials before handling or use.

### 7.3 Specific end use(s)

## Section 7. Handling and storage

<b>Recommendations</b>	: Agilent Torr Seal - part A - Epoxy Resin	Industrial applications, Professional applications.
	: Agilent Torr Seal - part B - Hardener	Industrial applications, Professional applications.
<b>Industrial sector specific solutions</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not available.
	: Agilent Torr Seal - part B - Hardener	Not available.

## Section 8. Exposure controls/personal protection

### 8.1 Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin Phenol, polymer with formaldehyde, glycidyl ether Titanium dioxide	None. None. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 10 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>OSHA PEL (United States, 5/2018).</b> TWA: 15 mg/m <sup>3</sup> 8 hours. Form: Total dust <b>CAL OSHA PEL (United States, 5/2018).</b> TWA: 5 mg/m <sup>3</sup> , (as Ti) 8 hours. Form: respirable fraction TWA: 10 mg/m <sup>3</sup> , (as Ti) 8 hours. Form: total dust <b>ACGIH TLV (United States, 1/2023).</b> TWA: 2.5 mg/m <sup>3</sup> 8 hours. Form: respirable fraction, finescale particles
2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane	None.
<b>Agilent Torr Seal - part B - Hardener</b> 2,2'-Iminodiethylamine	<b>ACGIH TLV (United States, 1/2023).</b> <b>Absorbed through skin.</b> TWA: 1 ppm 8 hours. TWA: 4.2 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 1 ppm 8 hours. TWA: 4 mg/m <sup>3</sup> 8 hours. <b>NIOSH REL (United States, 10/2020).</b> <b>Absorbed through skin.</b> TWA: 1 ppm 10 hours. TWA: 4 mg/m <sup>3</sup> 10 hours. <b>CAL OSHA PEL (United States, 5/2018).</b> <b>Absorbed through skin.</b> TWA: 4 mg/m <sup>3</sup> 8 hours. TWA: 1 ppm 8 hours.
crystalline silica, respirable powder	<b>CAL OSHA PEL (United States, 5/2018).</b> TWA: 0.05 mg/m <sup>3</sup> 8 hours. <b>OSHA PEL Z3 (United States, 6/2016).</b> TWA: 250 mppcf / (%SiO <sub>2</sub> +5) 8 hours. Form: Respirable TWA: 10 mg/m <sup>3</sup> / (%SiO <sub>2</sub> +2) 8 hours. Form: Respirable <b>OSHA PEL 1989 (United States, 3/1989).</b> TWA: 0.1 mg/m <sup>3</sup> , (as quartz) 8 hours. Form: Respirable dust <b>OSHA PEL (United States, 5/2018).</b> [Silica,

## Section 8. Exposure controls/personal protection

<p>Bisphenol A 2-piperazin-1-ylethylamine 2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane</p>	<p><b>crystalline]</b> TWA: 50 µg/m<sup>3</sup> 8 hours. Form: Respirable dust <b>ACGIH TLV (United States, 1/2023). [Silica, crystalline]</b> TWA: 0.025 mg/m<sup>3</sup> 8 hours. Form: Respirable fraction <b>NIOSH REL (United States, 10/2020). [SILICA, CRYSTALLINE]</b> TWA: 0.05 mg/m<sup>3</sup> 10 hours. Form: respirable dust</p> <p>None. None. None.</p>
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### Biological exposure indices

No exposure indices known.

### 8.2 Exposure controls

#### **Appropriate engineering controls**

: Use only with adequate ventilation. Use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

#### **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.

### Individual protection measures

#### **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.

#### **Eye/face protection**

: 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, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

### Skin protection

#### **Hand protection**

: When used as intended with Agilent instruments, use of the product is not expected to result in direct contact with the chemical. However, in case of accidental contact with splash wear good quality:

Glove material: Nitrile rubber  
Glove thickness: > 0.4 mm  
Breakthrough time: > 480 minutes

Selection of a suitable glove depends not only on the material but also on other quality properties, which may vary from manufacturer to manufacturer. Consult your glove manufacturer for the exact breakthrough times and comply.

#### **Body protection**

: 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.

## Section 8. Exposure controls/personal protection

- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use. Recommended: Filter type: A (EN 14387)

## Section 9. Physical and chemical properties and safety characteristics

The conditions of measurement of all properties are at standard temperature and pressure unless otherwise indicated.

### Appearance

<b>Physical state</b>	: Agilent Torr Seal - part A - Epoxy Resin	Liquid.
	: Agilent Torr Seal - part B - Hardener	Liquid.
<b>Color</b>	: Agilent Torr Seal - part A - Epoxy Resin	Off-white.
	: Agilent Torr Seal - part B - Hardener	Green.
<b>Odor</b>	: Agilent Torr Seal - part A - Epoxy Resin	Mild.
	: Agilent Torr Seal - part B - Hardener	Ammoniacal.
<b>Odor threshold</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not available.
	: Agilent Torr Seal - part B - Hardener	Not available.
<b>pH</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not available.
	: Agilent Torr Seal - part B - Hardener	>7
<b>Melting point/freezing point</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not available.
	: Agilent Torr Seal - part B - Hardener	Not available.
<b>Boiling point, initial boiling point, and boiling range</b>	: Agilent Torr Seal - part A - Epoxy Resin	>260°C (>500°F)
	: Agilent Torr Seal - part B - Hardener	>100°C (>212°F)
<b>Flash point</b>	: Agilent Torr Seal - part A - Epoxy Resin	Open cup: >200°C (>392°F)
	: Agilent Torr Seal - part B - Hardener	Closed cup: >100°C (>212°F)
<b>Evaporation rate</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not available.
	: Agilent Torr Seal - part B - Hardener	Not available.
<b>Flammability</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not applicable.
	: Agilent Torr Seal - part B - Hardener	Not applicable.
<b>Lower and upper explosion limit/flammability limit</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not available.
	: Agilent Torr Seal - part B - Hardener	Not available.

## Section 9. Physical and chemical properties and safety characteristics

Vapor pressure	Ingredient name	Vapor Pressure at 20°C			Vapor pressure at 50°C		
		mm Hg	kPa	Method	mm Hg	kPa	Method
	<b>Agilent Torr Seal - part A - Epoxy Resin</b>  reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	<0	<0	EU A.4	-	-	-
	<b>Agilent Torr Seal - part B - Hardener</b>  2,2'-Iminodiethylamine	0.16	0.021	-	-	-	-
	Bisphenol A	0	0	OECD 104	0	0	OECD 104

**Relative vapor density** : Agilent Torr Seal - part A - Epoxy Resin Not available.  
Agilent Torr Seal - part B - Hardener Not available.

**Relative density** : Agilent Torr Seal - part A - Epoxy Resin 1.57  
Agilent Torr Seal - part B - Hardener 1.65

Solubility(ies)	Media	Result
	<b>Agilent Torr Seal - part A - Epoxy Resin</b> water	Insoluble
	<b>Agilent Torr Seal - part B - Hardener</b> water	Insoluble

**Partition coefficient: n-octanol/water** : Agilent Torr Seal - part A - Epoxy Resin Not applicable.  
Agilent Torr Seal - part B - Hardener Not applicable.

Auto-ignition temperature	Ingredient name	°C	°F	Method
	<b>Agilent Torr Seal - part B - Hardener</b>  2,2'-Iminodiethylamine	358	676.4	-
	Bisphenol A	510	950	-

**Decomposition temperature** : Agilent Torr Seal - part A - Epoxy Resin Not available.  
Agilent Torr Seal - part B - Hardener Not available.

**Viscosity** : Agilent Torr Seal - part A - Epoxy Resin Not available.  
Agilent Torr Seal - part B - Hardener Not available.

### Particle characteristics



## Section 9. Physical and chemical properties and safety characteristics

<b>Median particle size</b>	: Agilent Torr Seal - part A - Epoxy Resin	Not applicable.
	: Agilent Torr Seal - part B - Hardener	Not applicable.

## Section 10. Stability and reactivity

<b>10.1 Reactivity</b>	: Agilent Torr Seal - part A - Epoxy Resin	No specific test data related to reactivity available for this product or its ingredients.
	: Agilent Torr Seal - part B - Hardener	No specific test data related to reactivity available for this product or its ingredients.
<b>10.2 Chemical stability</b>	: Agilent Torr Seal - part A - Epoxy Resin	The product may not be stable under certain conditions of storage or use. See "Possibility of Hazardous Reactions" for further information.
	: Agilent Torr Seal - part B - Hardener	The product may not be stable under certain conditions of storage or use. See "Possibility of Hazardous Reactions" for further information.
<b>10.3 Possibility of hazardous reactions</b>	: Agilent Torr Seal - part A - Epoxy Resin	Free radical initiators, peroxides, strongly alkaline and strongly acidic materials or reactive metals. Contact with these could result in uncontrolled exothermic polymerization. Hazardous reactions or instability may occur under certain conditions of storage or use.
	: Agilent Torr Seal - part B - Hardener	Free radical initiators, peroxides, strongly alkaline and strongly acidic materials or reactive metals. Contact with these could result in uncontrolled exothermic polymerization. Hazardous reactions or instability may occur under certain conditions of storage or use.
<b>10.4 Conditions to avoid</b>	: Agilent Torr Seal - part A - Epoxy Resin	No specific data.
	: Agilent Torr Seal - part B - Hardener	No specific data.
<b>10.5 Incompatible materials</b>	: Agilent Torr Seal - part A - Epoxy Resin	May react or be incompatible with oxidizing materials.
	: Agilent Torr Seal - part B - Hardener	May react or be incompatible with oxidizing materials. acids alkalis halogenated hydrocarbons 2,2'-iminodi(ethylamine) copper alloys nickel alloys nitrosating agents
<b>10.6 Hazardous decomposition products</b>	: Agilent Torr Seal - part A - Epoxy Resin	Under normal conditions of storage and use, hazardous decomposition products should not be produced.
	: Agilent Torr Seal - part B - Hardener	Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
<b>Agilent Torr Seal - part B - Hardener</b>				
2,2'-Iminodiethylamine	LD50 Dermal	Rabbit	1090 mg/kg	-
	LD50 Oral	Rat	1080 mg/kg	-
Bisphenol A	LD50 Dermal	Rabbit	3600 mg/kg	-
	LD50 Oral	Rat	1200 mg/kg	-
2-piperazin-1-ylethylamine	LD50 Dermal	Rabbit - Male	866 mg/kg	-
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	LD50 Dermal	Rabbit - Male, Female	6741 mg/kg	-
	LD50 Oral	Rat - Male, Female	13161 mg/kg	-

#### Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
<b>Agilent Torr Seal - part A - Epoxy Resin</b>					
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Eyes - Mild irritant	Rabbit	-	100 mg	-
	Skin - Moderate irritant	Rabbit	-	24 hours 500 uL	-
	Skin - Severe irritant	Rabbit	-	24 hours 2 mg	-
<b>Agilent Torr Seal - part B - Hardener</b>					
2,2'-Iminodiethylamine	Skin - Moderate irritant	Rabbit	-	500 mg	-
Bisphenol A	Eyes - Severe irritant	Rabbit	-	24 hours 250 ug	-
	Skin - Mild irritant	Rabbit	-	250 mg	-
	Skin - Mild irritant	Rabbit	-	24 hours 500 mg	-
2-piperazin-1-ylethylamine	Eyes - Moderate irritant	Rabbit	-	24 hours 20 mg	-
	Skin - Severe irritant	Rabbit	-	24 hours 5 mg	-
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	Skin - Mild irritant	Rabbit	-	500 mg	-

#### Sensitization

Not available.

#### Mutagenicity

**Conclusion/Summary** : Not available.

#### Carcinogenicity

**Conclusion/Summary** : Not available.

#### Classification

## Section 11. Toxicological information

Product/ingredient name	OSHA	IARC	NTP
<b>Agilent Torr Seal - part A - Epoxy Resin</b> Titanium dioxide	-	2B	-
<b>Agilent Torr Seal - part B - Hardener</b> crystalline silica, respirable powder	+	1	Known to be a human carcinogen.

### Reproductive toxicity

**Conclusion/Summary** : Not available.

### Teratogenicity

**Conclusion/Summary** : Not available.

### Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Category 3	-	Respiratory tract irritation
Phenol, polymer with formaldehyde, glycidyl ether	Category 3	-	Respiratory tract irritation
2,2'-[methylenebis(p-phenyleneoxymethylene)]bisoxirane	Category 3	-	Respiratory tract irritation
<b>Agilent Torr Seal - part B - Hardener</b> Bisphenol A	Category 3	-	Respiratory tract irritation

### Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
<b>Agilent Torr Seal - part B - Hardener</b> crystalline silica, respirable powder	Category 1	inhalation	lungs
2-piperazin-1-ylethylamine	Category 1	-	-

### Aspiration hazard

Not available.

### Information on the likely routes of exposure

: Agilent Torr Seal - part A - Epoxy Resin  
Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.  
Agilent Torr Seal - part B - Hardener  
Routes of entry anticipated: Oral, Dermal, Inhalation, Eyes.

### Potential acute health effects

#### Eye contact

: Agilent Torr Seal - part A - Epoxy Resin  
Causes serious eye irritation.  
Agilent Torr Seal - part B - Hardener  
Causes serious eye irritation.

#### Inhalation

: Agilent Torr Seal - part A - Epoxy Resin  
May cause respiratory irritation.  
Agilent Torr Seal - part B - Hardener  
Fatal if inhaled. Corrosive to the respiratory system.

## Section 11. Toxicological information

<b>Skin contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Causes skin irritation. May cause an allergic skin reaction.
	: Agilent Torr Seal - part B - Hardener	Causes severe burns. May cause an allergic skin reaction.
<b>Ingestion</b>	: Agilent Torr Seal - part A - Epoxy Resin	No known significant effects or critical hazards.
	: Agilent Torr Seal - part B - Hardener	May cause burns to mouth, throat and stomach. Corrosive to the digestive tract. Causes burns.

### Symptoms related to the physical, chemical and toxicological characteristics

<b>Eye contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Adverse symptoms may include the following: pain or irritation watering redness
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: pain watering redness
<b>Inhalation</b>	: Agilent Torr Seal - part A - Epoxy Resin	Adverse symptoms may include the following: respiratory tract irritation coughing
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: respiratory tract irritation coughing reduced fetal weight increase in fetal deaths skeletal malformations
<b>Skin contact</b>	: Agilent Torr Seal - part A - Epoxy Resin	Adverse symptoms may include the following: irritation redness
	: Agilent Torr Seal - 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>Ingestion</b>	: Agilent Torr Seal - part A - Epoxy Resin	No specific data.
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: stomach pains reduced fetal weight increase in fetal deaths skeletal malformations

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

## Section 11. Toxicological information

### Long term exposure

**Potential immediate effects** : Not available.

**Potential delayed effects** : Not available.

### Potential chronic health effects

<b>General</b>	: Agilent Torr Seal - part A - Epoxy Resin	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
	: Agilent Torr Seal - part B - Hardener	Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
<b>Carcinogenicity</b>	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	Suspected of causing cancer. Risk of cancer depends on duration and level of exposure. May cause cancer. Risk of cancer depends on duration and level of exposure.
<b>Mutagenicity</b>	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	No known significant effects or critical hazards. No known significant effects or critical hazards.
<b>Reproductive toxicity</b>	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	No known significant effects or critical hazards. May damage fertility or the unborn child.

### Numerical measures of toxicity

#### Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapors) (mg/l)	Inhalation (dusts and mists) (mg/l)
<b>Agilent Torr Seal - part B - Hardener</b>					
Agilent Torr Seal - part B - Hardener	3932.2	4254.0	N/A	2.0	N/A
2,2'-Iminodiethylamine	1080	1090	N/A	0.5	N/A
Bisphenol A	1200	3600	N/A	N/A	N/A
2-piperazin-1-ylethylamine	500	866	N/A	N/A	N/A
2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane	13161	6741	N/A	N/A	N/A

## Section 12. Ecological information

### 12.1 Toxicity

Product/ingredient name	Result	Species	Exposure
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	Acute EC50 9.4 mg/l Fresh water	Algae	72 hours
<b>Agilent Torr Seal - part B - Hardener</b> 2,2'-Iminodiethylamine	Acute LC50 53500 µg/l Fresh water Acute LC50 1014000 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> Fish - <i>Poecilia reticulata</i>	48 hours 96 hours
Bisphenol A	Acute EC50 1.506 mg/l Marine water	Algae - <i>Prorocentrum minimum</i> - Exponential growth phase	72 hours

## Section 12. Ecological information

2-piperazin-1-ylethylamine	Acute EC50 1000 µg/l Marine water	Algae - <i>Skeletonema costatum</i>	96 hours
	Acute EC50 7.3 mg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	48 hours
	Acute LC50 50.4 µg/l Marine water	Crustaceans - <i>Artemia sinica</i>	48 hours
	Acute LC50 3.5 mg/l Marine water	Fish - <i>Rivulus marmoratus</i> - Embryo	96 hours
	Chronic NOEC 2 mg/l Fresh water	Algae - <i>Chlorolobion braunii</i> - Exponential growth phase	4 days
	Chronic NOEC 10 µg/l Marine water	Crustaceans - <i>Tigriopus japonicus</i> - Nauplii	21 days
	Chronic NOEC 30 µg/l Fresh water	Daphnia - <i>Daphnia magna</i> - Neonate	21 days
Chronic NOEC 0.2 µg/l Fresh water	Fish - <i>Carassius auratus</i> - Adult	90 days	
Acute LC50 2190000 µg/l Fresh water	Fish - <i>Pimephales promelas</i>	96 hours	

### 12.2 Persistence and degradability

Product/ingredient name	Test	Result	Dose	Inoculum
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	OECD 301F Ready Biodegradability - Manometric Respirometry Test	5 % - Not readily - 28 days	-	-
<b>Agilent Torr Seal - part B - Hardener</b> Bisphenol A	OECD 301F Ready Biodegradability - Manometric Respirometry Test	74.7 to 81.4 % - Readily - 28 days	-	-
2-piperazin-1-ylethylamine	OECD 301F Ready Biodegradability - Manometric Respirometry Test	0 % - Not readily - 28 days	-	-

Product/ingredient name	Aquatic half-life	Photolysis	Biodegradability
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	-	-	Not readily
<b>Agilent Torr Seal - part B - Hardener</b> 2,2'-Iminodiethylamine	Marine water 2 to 4 days, pH 8, 20°C	-	Readily
Bisphenol A	-	-	Readily
2-piperazin-1-ylethylamine	-	-	Not readily
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	-	-	Not readily

### 12.3 Bioaccumulative potential

## Section 12. Ecological information

Product/ingredient name	LogP <sub>ow</sub>	BCF	Potential
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	2.64 to 3.78	31	Low
<b>Agilent Torr Seal - part B - Hardener</b> 2,2'-Iminodiethylamine	-5.58	2.8 to 6.3	Low
Bisphenol A	3.4	20 to 67	Low
2-piperazin-1-ylethylamine	-1.48	-	Low

### 12.4 Mobility in soil

**Soil/water partition coefficient (K<sub>oc</sub>)** : Not available.

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

## Section 13. Disposal considerations

### 13.1 Waste treatment methods

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. 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.

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.

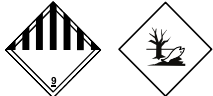
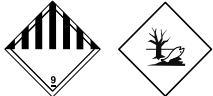

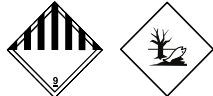

Refer to Section 7: HANDLING AND STORAGE and Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION for additional handling information and protection of employees.

## Section 14. Transport information

	DOT Classification	TDG Classification	Mexico Classification	IMDG	IATA
<b>UN number</b>	UN3316	UN3316	UN3316	UN3316	UN3316
<b>UN proper shipping name</b>	Chemical kit	CHEMICAL KIT	EQUIPO QUIMICO	CHEMICAL KIT	Chemical kit



## Section 14. Transport information

<b>Transport hazard class(es)</b>	9 	9 	9 	9 	9 
<b>Packing group</b>	II	II	II	II	II
<b>Environmental hazards</b>	Yes.	Yes.	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

### Additional information

#### DOT Classification

- : This product is not regulated as a marine pollutant when transported on inland waterways in sizes of ≤5 L or ≤5 kg or by road, rail, or inland air in non-bulk sizes, provided the packagings meet the general provisions of §§ 173.24 and 173.24a.  
**Limited quantity** Yes.  
**Packaging instruction** Exceptions: 161. Non-bulk: 161. Bulk: None.  
**Quantity limitation** Passenger aircraft/rail: 10 kg. Cargo aircraft: 10 kg.  
**Special provisions** 15

#### TDG Classification

- : Product classified as per the following sections of the Transportation of Dangerous Goods Regulations: 2.43-2.45 (Class 9), 2.7 (Marine pollutant mark). The marine pollutant mark is not required when transported by road or rail.  
**Passenger Carrying Road or Rail Index** 10  
**Special provisions** 65, 141

#### Mexico Classification

- : **Special provisions** 251, 340

#### IMDG

- : The marine pollutant mark is not required when transported in sizes of ≤5 L or ≤5 kg.  
**Emergency schedules** F-A, \_S-P\_  
**Special provisions** 251, 340

#### IATA

- : The environmentally hazardous substance mark may appear if required by other transportation regulations.  
**Quantity limitation** Passenger and Cargo Aircraft: 10 kg. Packaging instructions: 960. Cargo Aircraft Only: 10 kg. Packaging instructions: 960. Limited Quantities - Passenger Aircraft: 1 kg. Packaging instructions: Y960.  
**Special provisions** A44, A163

- Special precautions for user** : **Transport within user's premises:** always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

- Transport in bulk according to IMO instruments** : Not available.

## Section 15. Regulatory information

### 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

- U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined

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

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

## Section 15. Regulatory information

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

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

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

### SARA 302/304

#### Composition/information on ingredients

No products were found.

**SARA 304 RQ** : Not applicable.

### SARA 311/312

<b>Classification</b>	: Agilent Torr Seal - part A - Epoxy Resin	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 HNOC - Exothermic polymerization
	Agilent Torr Seal - part B - Hardener	ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1B EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) -Category 1 HNOC - Exothermic polymerization HNOC - Corrosive to digestive tract HNOC - Corrosive to respiratory tract

#### Composition/information on ingredients

Name	%	Classification
<b>Agilent Torr Seal - part A - Epoxy Resin</b> reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	≥25 - ≤50	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Phenol, polymer with formaldehyde, glycidyl ether	≥10 - ≤25	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
Titanium dioxide	≤10	CARCINOGENICITY - Category 2
2,2'-[methylenebis(p-phenyleneoxymethylene)] bisoxirane	<1	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3
<b>Agilent Torr Seal - part B - Hardener</b> 2,2'-Iminodiethylamine	≥10 - ≤25	ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 4 ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1B EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1A HNOC - Corrosive to digestive tract HNOC - Corrosive to respiratory tract
crystalline silica, respirable powder	≥10 - ≤25	CARCINOGENICITY - Category 1A SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
Bisphenol A	<2.5	ACUTE TOXICITY (oral) - Category 4 SERIOUS EYE DAMAGE - Category 1

## Section 15. Regulatory information

2-piperazin-1-ylethylamine	<1	SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 FLAMMABLE LIQUIDS - Category 4 ACUTE TOXICITY (oral) - Category 4 ACUTE TOXICITY (dermal) - Category 3 SKIN CORROSION - Category 1B SERIOUS EYE DAMAGE - Category 1 SKIN SENSITIZATION - Category 1 TOXIC TO REPRODUCTION - Category 2 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1
2-(3,4-epoxycyclohexyl) ethyltrimethoxysilane	<1	HNOC - Corrosive to digestive tract SKIN SENSITIZATION - Category 1B GERM CELL MUTAGENICITY - Category 2 CARCINOGENICITY - Category 2

### SARA 313

	Product name	CAS number	%
<b>Form R - Reporting requirements</b>	<b>Agilent Torr Seal - part B - Hardener</b> Bisphenol A	80-05-7	<2.5
<b>Supplier notification</b>	<b>Agilent Torr Seal - part B - Hardener</b> Bisphenol A	80-05-7	<2.5

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

### State regulations

- Massachusetts** : The following components are listed: DIETHYLENE TRIAMINE; SILICA, CRYSTALLINE, QUARTZ; TITANIUM DIOXIDE; 4,4'-ISOPROPYLIDENEDIPHENOL
- New York** : None of the components are listed.
- New Jersey** : The following components are listed: DIETHYLENE TRIAMINE; SILICA, QUARTZ; TITANIUM DIOXIDE; BISPHENOL A
- Pennsylvania** : The following components are listed: 1,2-ETHANEDIAMINE, N-(2-AMINOETHYL)-; QUARTZ DUST; TITANIUM OXIDE; 4,4'-ISOPROPYLIDENEDIPHENOL

### California Prop. 65

**⚠ WARNING:** This product can expose you to chemicals including Silica, crystalline and Titanium dioxide, which are known to the State of California to cause cancer, and Bisphenol A, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Ingredient name	No significant risk level	Maximum acceptable dosage level
<b>Agilent Torr Seal - part A - Epoxy Resin</b> Titanium dioxide	-	-
<b>Agilent Torr Seal - part B - Hardener</b> Silica, crystalline Bisphenol A	- -	- Yes.

### International regulations

#### Chemical Weapon Convention List Schedules I, II & III Chemicals

Not listed.

#### Montreal Protocol

Not listed.

#### Stockholm Convention on Persistent Organic Pollutants

Not listed.

## Section 15. Regulatory information

### Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

### UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

### Inventory list

<b>Australia</b>	: Not determined.
<b>Canada</b>	: Not determined.
<b>China</b>	: Not determined.
<b>Japan</b>	: <b>Japan inventory (CSCL):</b> Not determined. <b>Japan inventory (ISHL):</b> Not determined.
<b>New Zealand</b>	: Not determined.
<b>Philippines</b>	: Not determined.
<b>Republic of Korea</b>	: Not determined.
<b>Taiwan</b>	: Not determined.
<b>Thailand</b>	: Not determined.
<b>Turkey</b>	: Not determined.
<b>United States</b>	: Not determined.
<b>Viet Nam</b>	: Not determined.

## Section 16. Other information

### Procedure used to derive the classification

Classification	Justification
<b>Agilent Torr Seal - part A - Epoxy Resin</b> SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method
<b>Agilent Torr Seal - part B - Hardener</b> ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION - Category 1B EYE IRRITATION - Category 2A SKIN SENSITIZATION - Category 1 CARCINOGENICITY - Category 1A TOXIC TO REPRODUCTION - Category 1B SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) - Category 1 AQUATIC HAZARD (LONG-TERM) - Category 2	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

### History

<b>Date of issue/Date of revision</b>	: 04/03/2024
<b>Date of previous issue</b>	: 10/03/2023
<b>Version</b>	: 4

## Section 16. Other information

### Key to abbreviations

- : ATE = Acute Toxicity Estimate
- BCF = Bioconcentration Factor
- GHS = Globally Harmonized System of Classification and Labelling of Chemicals
- IATA = International Air Transport Association
- IBC = Intermediate Bulk Container
- IMDG = International Maritime Dangerous Goods
- LogPow = logarithm of the octanol/water partition coefficient
- MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)
- N/A = Not available
- UN = United Nations

✔ Indicates information that has changed from previously issued version.

### Notice to reader

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