

SAFETY DATA SHEET



Torr Seal, Part Number 9530001

Section 1. Identification

Product identifier : 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.

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

Supplier/Manufacturer : Agilent Technologies Australia Pty Ltd
 679 Springvale Road
 Mulgrave
 Victoria 3170, Australia
 1800 802 402

Emergency telephone number (with hours of operation) : CHEMTREC®: +(61)-290372994

Section 2. Hazard(s) identification

Classification of the substance or mixture

Agilent Torr Seal - part A - Epoxy Resin

H315 SKIN CORROSION/IRRITATION - Category 2
 H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
 H317 SKIN SENSITISATION - Category 1
 H351 CARCINOGENICITY - Category 2
 H411 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2

Agilent Torr Seal - part B - Hardener

H330 ACUTE TOXICITY (inhalation) - Category 2
 H314 SKIN CORROSION/IRRITATION - Category 1A
 H319 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A
 H317 SKIN SENSITISATION - Category 1
 H350 CARCINOGENICITY - Category 1
 H372 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1
 H411 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2








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%

GHS label elements

Section 2. Hazard(s) identification

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. 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. 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 vapour.
	: Agilent Torr Seal - part B - Hardener	P201 - Obtain special instructions before use. P280 - Wear protective gloves, protective clothing and eye or face protection. P273 - Avoid release to the environment. P260 - Do not breathe vapour.
Response	: Agilent Torr Seal - part A - Epoxy Resin	P391 - Collect spillage.
	: Agilent Torr Seal - part B - Hardener	P391 - Collect spillage.
Storage	: Agilent Torr Seal - part A - Epoxy Resin	Not applicable.
	: Agilent Torr Seal - part B - Hardener	Not applicable.
Disposal	: 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.
Supplemental label elements		
Additional warning phrases	: Agilent Torr Seal - part A - Epoxy Resin	Not applicable.
	: Agilent Torr Seal - part B - Hardener	Not applicable.

Section 2. Hazard(s) identification

Other hazards which do not result in classification : 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 digestive tract burns.

Section 3. Composition and ingredient information

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

CAS number/other identifiers

Ingredient name	% (w/w)	CAS number
Agilent Torr Seal - part A - Epoxy Resin		
reaction product: bisphenol-A-(epichlorhydrin); epoxy resin	≥30 - ≤60	25068-38-6
Phenol, polymer with formaldehyde, glycidyl ether	≥10 - <20	28064-14-4
Titanium dioxide	≤10	13463-67-7
Agilent Torr Seal - part B - Hardener		
2,2'-Iminodiethylamine	≥10 - ≤30	111-40-0
crystalline silica, respirable powder	≥10 - ≤30	14808-60-7
Bisphenol A	<2.5	80-05-7

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.

The total concentration of ingredients in this product, reported or not in this section, is 100%.

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

Section 4. First aid measures

Description of necessary first aid measures

Eye contact : 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.

Inhalation : Agilent Torr Seal - part A - Epoxy Resin Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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 unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight

Section 4. First aid measures

	Agilent Torr Seal - part B - Hardener	clothing such as a collar, tie, belt or waistband. 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.
Skin contact	: 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 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.
Ingestion	: Agilent Torr Seal - part A - Epoxy Resin	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.
	Agilent Torr Seal - part B - Hardener	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

Section 4. First aid measures

clothing such as a collar, tie, belt or waistband.

Most important symptoms/effects, acute and delayed

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	No known significant effects or critical hazards.
	: Agilent Torr Seal - part B - Hardener	Fatal if inhaled.
Skin contact	: 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.
Ingestion	: Agilent Torr Seal - part A - Epoxy Resin	No known significant effects or critical hazards.
	: Agilent Torr Seal - part B - Hardener	Corrosive to the digestive tract. Causes burns.

Over-exposure signs/symptoms

Eye contact	: 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
Inhalation	: Agilent Torr Seal - part A - Epoxy Resin	No specific data.
	: Agilent Torr Seal - part B - Hardener	No specific data.
Skin contact	: 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
Ingestion	: Agilent Torr Seal - part A - Epoxy Resin	No specific data.
	: Agilent Torr Seal - part B - Hardener	Adverse symptoms may include the following: stomach pains

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

Notes to physician	: 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.

Section 4. First aid measures

Specific treatments	: Agilent Torr Seal - part A - Epoxy Resin	No specific treatment.
	Agilent Torr Seal - part B - Hardener	No specific treatment.
Protection of first-aiders	: Agilent Torr Seal - part A - Epoxy Resin	No action shall be taken involving any personal risk or without suitable training. 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. Firefighting measures

Extinguishing media

Suitable extinguishing media	: Agilent Torr Seal - part A - Epoxy Resin	Use an extinguishing agent suitable for the surrounding fire.
	Agilent Torr Seal - part B - Hardener	Use an extinguishing agent suitable for the surrounding fire.
Unsuitable extinguishing media	: Agilent Torr Seal - part A - Epoxy Resin	None known.
	Agilent Torr Seal - part B - Hardener	None known.
Specific hazards arising from the chemical	: Agilent Torr Seal - part A - Epoxy Resin	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.
	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.
Hazardous thermal decomposition products	: Agilent Torr Seal - part A - Epoxy Resin	Decomposition products may include the following materials: carbon dioxide carbon monoxide halogenated compounds metal oxide/oxides
	Agilent Torr Seal - part B - Hardener	Decomposition products may include the following materials: carbon dioxide carbon monoxide nitrogen oxides metal oxide/oxides

Section 5. Firefighting measures

Special protective actions for fire-fighters	: 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	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.
Special protective equipment for fire-fighters	: 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.
	: Agilent Torr Seal - part B - Hardener	Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Hazchem code	: Agilent Torr Seal - part A - Epoxy Resin	3Z
	: Agilent Torr Seal - part B - Hardener	2X

Section 6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel	: 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
	: Agilent Torr Seal - 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 spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Do not breathe vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.
For emergency responders	: Agilent Torr Seal - part A - Epoxy Resin	If specialised 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	If specialised 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".

Section 6. Accidental release measures

Environmental precautions	: Agilent Torr Seal - part A - Epoxy Resin	Avoid dispersal of spilt 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 spilt 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.

Methods and material for containment and cleaning up

Methods for cleaning up	: 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

Precautions for safe handling

Protective measures	: 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 vapour or mist. Avoid release to the environment. If during normal use the material presents a respiratory hazard, use only with adequate ventilation or wear appropriate respirator. 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. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe vapour 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

Section 7. Handling and storage

Advice on general occupational hygiene

: Agilent Torr Seal - part A - Epoxy Resin

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.

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.

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.

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 unlabelled 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 unlabelled containers. Use appropriate containment to avoid environmental contamination. See Section 10 for incompatible materials before handling or use.

Section 8. Exposure controls and personal protection

[Control parameters](#)

[Occupational exposure limits](#)

Section 8. Exposure controls and personal protection

Ingredient name	Exposure limits
<p>Agilent Torr Seal - part A - Epoxy Resin Titanium dioxide</p> <p>Agilent Torr Seal - part B - Hardener 2,2'-Iminodiethylamine</p> <p>crystalline silica, respirable powder</p> <p>Bisphenol A</p>	<p>Safe Work Australia (Australia, 10/2022). TWA: 10 mg/m³ 8 hours.</p> <p>Safe Work Australia (Australia, 10/2022). Absorbed through skin. Skin sensitiser. Inhalation sensitiser. TWA: 4.2 mg/m³ 8 hours. TWA: 1 ppm 8 hours.</p> <p>Safe Work Australia (Australia, 10/2022). [Silica – Crystalline] TWA: 0.05 mg/m³ 8 hours. Form: Respirable dust</p> <p>EH40/2005 WELs (United Kingdom (UK), 1/2020). TWA: 2 mg/m³ 8 hours.</p>

Biological exposure indices

No exposure indices known.

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 and 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

- Physical state** : Agilent Torr Seal - part A - Epoxy Resin Liquid.
Agilent Torr Seal - part B - Hardener Liquid.
- Colour** : Agilent Torr Seal - part A - Epoxy Resin Off-white.
Agilent Torr Seal - part B - Hardener Green.
- Odour** : Agilent Torr Seal - part A - Epoxy Resin Mild.
Agilent Torr Seal - part B - Hardener Ammoniacal.
- Odour threshold** : Agilent Torr Seal - part A - Epoxy Resin Not available.
Agilent Torr Seal - part B - Hardener Not available.
- pH** : Agilent Torr Seal - part A - Epoxy Resin Not available.
Agilent Torr Seal - part B - Hardener >7
- Melting point/freezing point** : Agilent Torr Seal - part A - Epoxy Resin Not available.
Agilent Torr Seal - part B - Hardener Not available.
- Boiling point, initial boiling point, and boiling range** : Agilent Torr Seal - part A - Epoxy Resin >260°C (>500°F)
Agilent Torr Seal - part B - Hardener >100°C (>212°F)
- Flash point** : 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)
- Evaporation rate** : Agilent Torr Seal - part A - Epoxy Resin Not available.
Agilent Torr Seal - part B - Hardener Not available.
- Flammability** : Agilent Torr Seal - part A - Epoxy Resin Not applicable.
Agilent Torr Seal - part B - Hardener Not applicable.
- Lower and upper explosion limit/flammability limit** : Agilent Torr Seal - part A - Epoxy Resin Not available.
Agilent Torr Seal - part B - Hardener Not available.
- Vapour pressure** :

Section 9. Physical and chemical properties and safety characteristics

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

Relative vapour 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
Agilent Torr Seal - part A - Epoxy Resin water		Insoluble
Agilent Torr Seal - part B - Hardener 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
	Agilent Torr Seal - part B - Hardener 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

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

Section 10. Stability and reactivity

Reactivity	: 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.
Chemical stability	: 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.
Possibility of hazardous reactions	: 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 polymerisation. 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 polymerisation. Hazardous reactions or instability may occur under certain conditions of storage or use.
Conditions to avoid	: Agilent Torr Seal - part A - Epoxy Resin	No specific data.
	: Agilent Torr Seal - part B - Hardener	No specific data.
Incompatible materials	: Agilent Torr Seal - part A - Epoxy Resin	May react or be incompatible with oxidising materials.
	: Agilent Torr Seal - part B - Hardener	May react or be incompatible with oxidising materials. acids alkalis 2,2'-iminodi(ethylamine) halogenated hydrocarbons copper alloys nickel alloys nitrosating agents
Hazardous decomposition products	: 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

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Agilent Torr Seal - part B - Hardener				
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	-

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation
Agilent Torr Seal - part A - Epoxy Resin					
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	-
Agilent Torr Seal - part B - Hardener					
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	-

Sensitisation

Not available.

Mutagenicity

Conclusion/Summary : Not available.

Carcinogenicity

Conclusion/Summary : Not available.

Reproductive toxicity

Conclusion/Summary : Not available.

Teratogenicity

Conclusion/Summary : Not available.

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Agilent Torr Seal - part A - Epoxy Resin Phenol, polymer with formaldehyde, glycidyl ether	Category 3	-	Respiratory tract irritation
Agilent Torr Seal - part B - Hardener Bisphenol A	Category 3	-	Respiratory tract irritation

Specific target organ toxicity (repeated exposure)

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Name	Category	Route of exposure	Target organs
Agilent Torr Seal - part B - Hardener crystalline silica, respirable powder	Category 1	inhalation	lungs

Aspiration hazard

Not available.

Information on 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 No known significant effects or critical hazards.
Agilent Torr Seal - part B - Hardener Fatal if inhaled.

Skin contact : 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.

Ingestion : Agilent Torr Seal - part A - Epoxy Resin No known significant effects or critical hazards.
Agilent Torr Seal - part B - Hardener Corrosive to the digestive tract. Causes burns.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact : 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

Inhalation : Agilent Torr Seal - part A - Epoxy Resin No specific data.
Agilent Torr Seal - part B - Hardener No specific data.

Skin contact : 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

Section 11. Toxicological information

Ingestion	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	No specific data. Adverse symptoms may include the following: stomach pains
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Delayed and immediate effects as well as chronic effects from short and long-term exposure

Short term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Long term exposure

Potential immediate effects : Not available.

Potential delayed effects : Not available.

Potential chronic health effects

General	: Agilent Torr Seal - part A - Epoxy Resin Agilent Torr Seal - part B - Hardener	Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels. Causes damage to organs through prolonged or repeated exposure. Once sensitized, a severe allergic reaction may occur when subsequently exposed to very low levels.
Carcinogenicity	: 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.
Mutagenicity	: 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.
Reproductive toxicity	: 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.

Numerical measures of toxicity

Acute toxicity estimates

Product/ingredient name	Oral (mg/kg)	Dermal (mg/kg)	Inhalation (gases) (ppm)	Inhalation (vapours) (mg/l)	Inhalation (dusts and mists) (mg/l)
Agilent Torr Seal - part B - Hardener					
Agilent Torr Seal - part B - Hardener	3932.2	4415.1	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

Section 12. Ecological information

Toxicity

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

Persistence and degradability

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

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

Section 12. Ecological information

Bioaccumulative potential

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

Mobility in soil





Soil/water partition coefficient (K_{oc}) : Not available.

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

Section 13. Disposal considerations

Disposal methods : The generation of waste should be avoided or minimised 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 spilt material and runoff and contact with soil, waterways, drains and sewers.

Section 14. Transport information

	ADG	IMDG	IATA
UN number	UN3316	UN3316	UN3316
UN proper shipping name	CHEMICAL KIT	CHEMICAL KIT	Chemical kit
Transport hazard class(es)	9 	9  	9 
Packing group	II	II	II
Environmental hazards	Yes. The environmentally hazardous substance mark is not required.	Yes.	Yes. The environmentally hazardous substance mark is not required.

Additional information

ADG : **Hazchem code** 2Z
Special provisions 251, 340

Section 14. Transport information

- 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

Standard for the Uniform Scheduling of Medicines and Poisons

Not regulated.

Model Work Health and Safety Regulations - Scheduled Substances

<u>Ingredient name</u>	<u>Schedule</u>
Agilent Torr Seal - part B - Hardener Quartz respirable fraction	Restricted hazardous chemical [For abrasive blasting at a concentration of greater than 1%]

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.

Rotterdam Convention on Prior Informed Consent (PIC)

Not listed.

UNECE Aarhus Protocol on POPs and Heavy Metals

Not listed.

Inventory list

- Australia** : Not determined.
New Zealand : Not determined.
United States : Not determined.

Section 16. Any other relevant information

History

- Date of issue/Date of revision** : 03/04/2024
Date of previous issue : 03/10/2023
Version : 4

Section 16. Any other relevant information

Key to abbreviations

- : ADG = Australian Dangerous Goods
- ADR = The European Agreement concerning the International Carriage of Dangerous Goods by Road
- 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
- SUSMP = Standard Uniform Schedule of Medicine and Poisons
- UN = United Nations

Procedure used to derive the classification

Classification	Justification
Agilent Torr Seal - part A - Epoxy Resin SKIN CORROSION/IRRITATION - Category 2 SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 CARCINOGENICITY - Category 2 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method Calculation method Calculation method Calculation method Calculation method
Agilent Torr Seal - part B - Hardener ACUTE TOXICITY (inhalation) - Category 2 SKIN CORROSION/IRRITATION - Category 1A SERIOUS EYE DAMAGE/EYE IRRITATION - Category 2A SKIN SENSITISATION - Category 1 CARCINOGENICITY - Category 1 SPECIFIC TARGET ORGAN TOXICITY - REPEATED EXPOSURE - Category 1 LONG-TERM (CHRONIC) AQUATIC HAZARD - Category 2	Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method Calculation method

📌 Indicates information that has changed from previously issued version.

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