



**SAFETY DATA SHEET
QUICSEAL 164 – PART A
HYPERFLEX 2K**

1. INFORMATION OF THE SUBSTANCE/COMPOUND AND THE SUPPLIER

Product Name: QUICSEAL 164 – Hyperflex 2K (Part A)
Product Use: Part A of a 2-component liquid polyurethane waterproofing membrane

Details of the supplier:

*QUICSEAL CONSTRUCTION CHEMICALS PTE LTD
No. 7 Eunos Avenue 8A
Eunos Industrial Estate
Singapore 409460*

Emergency Contact No.: (65) 6742 4466

2. HAZARDS IDENTIFICATION

GHS classification:

Flammable liquid – Category 3
Skin irritation – Category 2

GHS LABEL ELEMENTS

Symbol(s):



Signal Word

Warning

Hazard statements:

H226: Flammable liquid and vapour
H315: Causes skin irritation

Precautionary statements:

Prevention

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash hands and forearms thoroughly after handling.
P280: Wear protective gloves/protective clothing/face protection.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



Response

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P370+P378: In case of fire: Use appropriate extinction.

Storage

P403+P235: Store in a well ventilated place. Keep cool.

Disposal

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product contains the following components classified as hazardous:

COMPONENTS	CAS No.	EINECS No.	Index No.	Percentage
Xylene (1,4-Dimethylbenzene, p-Xylene, para-Xylene, p-Xylol)	1330-20-7	202-422-2	601-022-00-9	< 15%

4. FIRST-AID MEASURES**General information**

Take person to a safe place. Observe self-protection for first aid. Always seek medical advice in the event of contact with this substance.

Inhalation

Keep the patient calm. If unconscious place in stable sideways position. Protect against loss of body heat. If breathing stops, administer artificial respiration. Seek medical advice immediately and clearly identify substance.

Skin contact

Remove contaminated clothes at once. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice immediately and clearly identify substance.

Eye contact

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice immediately and clearly identify substance. Continue to bathe eyes during transport to medical practitioner.

Ingestion

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice immediately and clearly identify substance.

Notes to physician

Treat patient symptomatically (decontamination, vital functions).

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



5. FIRE-FIGHTING MEASURES

General Fire Hazards

This product is classified as a FLAMMABLE LIQUID. See Section 9 for Flammability Properties. Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Suitable Fire-extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO₂, water spray, fire fighting foam, and other gaseous agents.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Fire-fighting Equipment / Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Fire-fighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

Hazardous Combustion Products

In case of fire, formation of carbon monoxide, nitrogen oxide, amines, isocyanate vapour, and traces of hydrogen cyanide is possible.

Further information

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



Methods and materials for containment and cleaning up

Carefully contain and stop the source of the spill, if safe to do so.

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Caution, flammable vapors may accumulate in closed containers.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Handle as a combustible liquid. Keep away from heat, sparks, excessive temperatures and open flame! No smoking or open flame in storage, use or handling areas. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Conditions for safe storage, including any incompatibilities

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labelled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. Store in a well-ventilated area. Avoid storage near incompatible materials. Keep away from strong oxidizers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**Control Parameters / Occupational Exposure Limits**

Singapore Permissible Exposure Level (PEL)

<u>COMPONENTS</u>	<u>CAS No.</u>	<u>Long-term PEL</u>		<u>Short-term PEL</u>	
Xylene (1,4-Dimethylbenzene, p-Xylene, para-Xylene, p-Xylol)	1330-20-7	100 ppm	434 mg/m ³	150 ppm	651 mg/m ³

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

Personal Protective Equipment:

Hand Protection:	Gloves constructed of nitrile, neoprene, or PVC are recommended.
Eye Protection:	Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.
Skin Protection:	Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure.
Respiratory Protection:	A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Transparent
Odour:	Smell of solvent
Flash Point:	42°C
Initial boiling point / range:	Not available; For xylene: 144°C (o-), 139°C (m-), 138°C (p-)
Freezing / Melting point:	Not available; For xylene: -25°C (o-), -48°C (m-), 13°C (p-)
Autoignition temperature:	Not available; For xylene: 463°C (o-), 527°C (m-), 527°C (p-)
Flammability Limits (vol%):	Not available; For xylene: 0.9-6.7 (o-), 1.1-7.0 (m-), 1.1-7.0 (p-)
Vapor pressure (20°C):	Not available; For xylene: 0.7 kPa (o-), 0.8 kPa (m-), 0.9 kPa (p-)
Vapor density:	Not available; For xylene: 3.66 (o-, m-, p-) (calculated value)
Water Solubility (25°C):	Not available; For xylene: 178mg/L (o-), 162mg/L (m-), 198mg/L (p-),
Solubility in other solvents:	Mixing with ethanol, ethyl ether and acetone (o-) Soluble in most organic solvent (m-) Mixing with alcohol, ether, other, many organic solvents (p-)
Specific Gravity:	Approx. 0.95 – 1.00
Viscosity (20°C):	1000 – 1500 mPa.s

10. STABILITY AND REACTIVITY

Chemical stability

The product is flammable. The liquid and vapour is readily combustible.

Possibility of hazardous reactions

Exothermic reaction with amines and alcohols; reacts with water forming CO₂, in closed containers risk of bursting owing to increase of pressure..

Conditions to avoid

Avoid high temperatures and pressures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible materials

Keep away from amines, alcohols, and other strong oxidizers.

Hazardous decomposition products

Carbon monoxide, nitrogen oxide, amines, isocyanate vapour, and traces of hydrogen cyanide may be liberated when product is involved in fire.

11. TOXICOLOGICAL INFORMATION

This product has not been tested and all the toxicological statements have been derived from the respective components' available toxicity information.

Acute toxicity

Experimental/calculated data:

LD50 (rat), oral: > 5,000 mg/kg (the product is not harmful if swallowed.)

LD50 (rabbit), dermal: > 5,000 mg/kg (the product is not harmful in contact with skin)

LC50 (4 hr exposure): > 20 mg/L (the product is not harmful if inhaled)

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



Skin and Eye Irritation

This product may cause skin irritation due to the following component:
Xylene, CAS No.: 1330-20-7 = Skin Irritant (Category 2)

Respiratory / Skin sensitization

The product is not expected to cause an allergic skin reaction (skin sensitization) or asthma symptoms or breathing difficulties if accidentally inhaled (respiratory sensitization).

Germ cell mutagenicity / Carcinogenicity / Reproductive toxicity / Developmental toxicity

Based on the assessment of available information, the product is: not mutagenic in bacteria; has no known carcinogenic effect; and not expected to cause reproductive and developmental toxicity.

Specific target organ toxicity (single and repeated exposure)

Based on the available information, this product is not expected to cause damage to any organ on single or prolonged/repeated exposure.

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. ECOLOGICAL INFORMATION

The following ecological assessment is based on the available ecotoxicity information of the product's components.

Ecotoxicity

This product is not expected to be toxic to aquatic life based on the toxicity values to the following aquatic organisms:

Fish: LC50 (96h) > 100 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)

Aquatic invertebrates: EC50 (48h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants: LC50 (72h) > 100 mg/l, *Scenedesmus subspicatus* (OECD Guideline 201)

Additional information

Do not release product untreated into natural waters. At the present knowledge of the product, no negative ecological effects are expected.

13. DISPOSAL CONSIDERATIONS**Description of waste residues and information on their safe handling & methods of disposal**

Dispose of the product through licensed hazardous waste collectors under Singapore regulations. Provide the hazardous waste collector the sufficient information on the various hazards of this product.

Disposal of any contaminated packaging

Dried material can be disposed off in authorized landfill site in accordance to national regulations. Container should be recycled after cleaning or dispose of the container through licensed hazardous waste collectors under Singapore regulations. Provide the hazardous waste collector the sufficient information on the various hazards of this product in this container.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



14. TRANSPORT INFORMATION**Land Transport (ADR/RID):**

Shipping Name: RESIN SOLUTION, FLAMMABLE LIQUID Label:
 UN #: 1866
 Hazard Class: 3
 (If capacity of receptacles is more than 450L, then declared Class 3, 31C)
 Packing Group: III

**Air Transport (IATA/ICAO):**

Shipping Name: RESIN SOLUTION, FLAMMABLE LIQUID Label:
 UN #: 1866
 Hazard Class: 3 No. 31C
 Packing Group: III

**Sea transport (IMDG):**

Shipping Name: RESIN SOLUTION, FLAMMABLE LIQUID Label:
 UN #: 1866
 Hazard Class: 3 No. 31C
 Packing Group: III
 EmS Number: F-E S-D
 Marine pollutant: No

**15. REGULATORY INFORMATION****Applicable National Regulations**

This product is subject to the requirements in the following acts/regulations:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations
 Environmental Protection and Management Act and Environmental Protection and Management
 Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives)

International Regulations

This product is classified as hazardous pursuant to the provision set forth in Directives 67/548/EEC and 1999/45/EC and/or EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

16. OTHER INFORMATION

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since QUICSEAL Construction Chemicals Pte. Ltd. cannot know all of the uses to which its products may be put or the conditions of use; it makes no warranties concerning the fitness or suitability of its products for a particular use of purpose.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W





**SAFETY DATA SHEET
QUICSEAL 164 – PART B
HYPERFLEX 2K**

1. INFORMATION OF THE SUBSTANCE/COMPOUND AND THE SUPPLIER

Product Name: QUICSEAL 164 – Hyperflex 2K (Part B)
Product Use: Part B of a 2-component liquid polyurethane waterproofing membrane

Details of the supplier:

*QUICSEAL CONSTRUCTION CHEMICALS PTE LTD
No. 7 Eunos Avenue 8A
Eunos Industrial Estate
Singapore 409460*

Emergency Contact No.: (65) 6742 4466

2. HAZARDS IDENTIFICATION

GHS classification:

Flammable liquid – Category 2
Skin irritation – Category 2

GHS LABEL ELEMENTS

Symbol(s):



Signal Word

Warning

Hazard statements:

H226: Highly flammable liquid and vapour
H315: Causes skin irritation

Precautionary statements:

Prevention

P210: Keep away from heat/sparks/open flames/hot surfaces. No smoking
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P242: Use only non-sparking tools.
P243: Take precautionary measures against static discharge.
P264: Wash hands and forearms thoroughly after handling.
P280: Wear protective gloves/protective clothing/face protection.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



Response

P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

P332+P313: If skin irritation occurs: Get medical advice/attention.

P362: Take off contaminated clothing and wash before reuse.

P370+P378: In case of fire: Use appropriate extinction.

Storage

P403+P235: Store in a well ventilated place. Keep cool.

Disposal

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

3. COMPOSITION / INFORMATION ON INGREDIENTS

This product contains the following components classified as hazardous:

COMPONENTS	CAS No.	EINECS No.	Index No.	Percentage
Xylene (1,4-Dimethylbenzene, p-Xylene, para-Xylene, p-Xylol)	1330-20-7	202-422-2	601-022-00-9	13 – 14%

4. FIRST-AID MEASURES**General information**

Take person to a safe place. Observe self-protection for first aid. Always seek medical advice in the event of contact with this substance.

Inhalation

Keep the patient calm. If unconscious place in stable sideways position. Protect against loss of body heat. If breathing stops, administer artificial respiration. Seek medical advice immediately and clearly identify substance.

Skin contact

Remove contaminated clothes at once. Wash off with plenty of water or water and soap immediately for 10-15 minutes. In serious cases, use emergency shower immediately. Seek medical advice immediately and clearly identify substance.

Eye contact

Rinse immediately with plenty of water for 10-15 minutes. Keep eyelids well open to rinse the whole eye surface and eyelids with water. Seek medical advice immediately and clearly identify substance. Continue to bathe eyes during transport to medical practitioner.

Ingestion

If conscious, give several small portions of water to drink. Do not induce vomiting. Seek medical advice immediately and clearly identify substance.

Notes to physician

Treat patient symptomatically (decontamination, vital functions).

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



5. FIRE-FIGHTING MEASURES

General Fire Hazards

This product is classified as a FLAMMABLE LIQUID. See Section 9 for Flammability Properties. Vapors may be ignited rapidly when exposed to heat, spark, open flame or other source of ignition. When mixed with air and exposed to an ignition source, flammable vapors can burn in the open or explode in confined spaces. Being heavier than air, vapors may travel long distances to an ignition source and flash back. Runoff to sewer may cause fire or explosion hazard.

Suitable Fire-extinguishing Media

SMALL FIRES: Any extinguisher suitable for Class B fires, dry chemical, CO₂, water spray, fire fighting foam, and other gaseous agents.

LARGE FIRES: Water spray, fog or fire fighting foam. Water may be ineffective for fighting the fire, but may be used to cool fire-exposed containers.

Fire-fighting Equipment / Instructions

Small fires in the incipient (beginning) stage may typically be extinguished using handheld portable fire extinguishers and other fire fighting equipment. Fire-fighting activities that may result in potential exposure to high heat, smoke or toxic by-products of combustion should require NIOSH/MSHA- approved pressure-demand self-contained breathing apparatus with full facepiece and full protective clothing. Isolate area around container involved in fire. Cool tanks, shells, and containers exposed to fire and excessive heat with water. For massive fires the use of unmanned hose holders or monitor nozzles may be advantageous to further minimize personnel exposure. Major fires may require withdrawal, allowing the tank to burn. Large storage tank fires typically require specially trained personnel and equipment to extinguish the fire, often including the need for properly applied fire fighting foam.

Hazardous Combustion Products

In case of fire, formation of carbon monoxide, nitrogen oxide, amines, isocyanate vapour, and traces of hydrogen cyanide is possible.

Further information

Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency measures

Evacuate nonessential personnel and remove or secure all ignition sources. Consider wind direction; stay upwind and uphill, if possible. Evaluate the direction of product travel, diking, sewers, etc. to confirm spill areas. Spills may infiltrate subsurface soil and groundwater; professional assistance may be necessary to determine the extent of subsurface impact. Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

Environmental Precautions

Protect bodies of water by diking, absorbents, or absorbent boom, if possible. Do not flush down sewer or drainage systems, unless system is designed and permitted to handle such material. The use of fire fighting foam may be useful in certain situations to reduce vapors. The proper use of water spray may effectively disperse product vapors or the liquid itself, preventing contact with ignition sources or areas/equipment that require protection.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



Methods and materials for containment and cleaning up

Carefully contain and stop the source of the spill, if safe to do so.

Take up with sand or other oil absorbing materials. Carefully shovel, scoop or sweep up into a waste container for reclamation or disposal. Caution, flammable vapors may accumulate in closed containers.

7. HANDLING AND STORAGE**Precautions for Safe Handling**

Handle as a combustible liquid. Keep away from heat, sparks, excessive temperatures and open flame! No smoking or open flame in storage, use or handling areas. Bond and ground containers during product transfer to reduce the possibility of static-initiated fire or explosion.

Conditions for safe storage, including any incompatibilities

Keep away from flame, sparks, excessive temperatures and open flame. Use approved vented containers. Keep containers closed and clearly labelled. Empty product containers or vessels may contain explosive vapors. Do not pressurize, cut, heat, weld or expose such containers to sources of ignition. Store in a well-ventilated area. Avoid storage near incompatible materials. Keep away from strong oxidizers.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION**Control Parameters / Occupational Exposure Limits**

Singapore Permissible Exposure Level (PEL)

<u>COMPONENTS</u>	<u>CAS No.</u>	<u>Long-term PEL</u>		<u>Short-term PEL</u>	
Xylene (1,4-Dimethylbenzene, p-Xylene, para-Xylene, p-Xylol)	1330-20-7	100 ppm	434 mg/m ³	150 ppm	651 mg/m ³

Engineering Measures

Use adequate ventilation to keep vapor concentrations of this product below occupational exposure and flammability limits, particularly in confined spaces.

Personal Protective Equipment:

- Hand Protection: Gloves constructed of nitrile, neoprene, or PVC are recommended.
- Eye Protection: Safety glasses or goggles are recommended where there is a possibility of splashing or spraying.
- Skin Protection: Chemical protective clothing such as of E.I. DuPont TyChem®, Saranex® or equivalent recommended based on degree of exposure.
- Respiratory Protection: A NIOSH/MSHA-approved air-purifying respirator with organic vapor cartridges or canister may be permissible under certain circumstances where airborne concentrations are or may be expected to exceed exposure limits or for odor or irritation. Protection provided by air-purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is a potential for uncontrolled release, exposure levels are not known, in oxygen-deficient atmospheres, or any other circumstance where an air-purifying respirator may not provide adequate protection.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Viscous Liquid
Color:	Black
Odour:	Smell of solvent
Flash Point:	> 21°C
Initial boiling point / range:	Not available; For xylene: 144°C (o-), 139°C (m-), 138°C (p-)
Freezing / Melting point:	Not available; For xylene: -25°C (o-), -48°C (m-), 13°C (p-)
Autoignition temperature:	Not available; For xylene: 463°C (o-), 527°C (m-), 527°C (p-)
Flammability Limits (vol%):	Not available; For xylene: 0.9-6.7 (o-), 1.1-7.0 (m-), 1.1-7.0 (p-)
Vapor pressure (20°C):	Not available; For xylene: 0.7 kPa (o-), 0.8 kPa (m-), 0.9 kPa (p-)
Vapor density:	Not available; For xylene: 3.66 (o-, m-, p-) (calculated value)
Water Solubility (25°C):	Not available; For xylene: 178mg/L (o-), 162mg/L (m-), 198mg/L (p-),
Solubility in other solvents:	Mixing with ethanol, ethyl ether and acetone (o-) Soluble in most organic solvent (m-) Mixing with alcohol, ether, other, many organic solvents (p-)
Specific Gravity:	Approx. 0.98
Viscosity (20°C):	4000 – 7000 mPa.s

10. STABILITY AND REACTIVITY

Chemical stability

The product is flammable. The liquid and vapour is readily combustible.

Possibility of hazardous reactions

Exothermic reaction with amines and alcohols; reacts with water forming CO₂, in closed containers risk of bursting owing to increase of pressure..

Conditions to avoid

Avoid high temperatures and pressures, open flames, sparks, welding, smoking and other ignition sources.

Incompatible materials

Keep away from amines, alcohols, and other strong oxidizers.

Hazardous decomposition products

Carbon monoxide, nitrogen oxide, amines, isocyanate vapour, and traces of hydrogen cyanide may be liberated when product is involved in fire.

11. TOXICOLOGICAL INFORMATION

This product has not been tested and all the toxicological statements have been derived from the respective components' available toxicity information.

Acute toxicity

Experimental/calculated data:

LD50 (rat), oral: > 5,000 mg/kg (the product is not harmful if swallowed.)

LD50 (rabbit), dermal: > 5,000 mg/kg (the product is not harmful in contact with skin)

LC50 (4 hr exposure): > 20 mg/L (the product is not harmful if inhaled)

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



Skin and Eye Irritation

This product may cause skin irritation due to the following component:
Xylene, CAS No.: 1330-20-7 = Skin Irritant (Category 2)

Respiratory / Skin sensitization

The product is not expected to cause an allergic skin reaction (skin sensitization) or asthma symptoms or breathing difficulties if accidentally inhaled (respiratory sensitization).

Germ cell mutagenicity / Carcinogenicity / Reproductive toxicity / Developmental toxicity

Based on the assessment of available information, the product is: not mutagenic in bacteria; has no known carcinogenic effect; and not expected to cause reproductive and developmental toxicity.

Specific target organ toxicity (single and repeated exposure)

Based on the available information, this product is not expected to cause damage to any organ on single or prolonged/repeated exposure.

Other Information:

Based on our experience and the information available, no adverse health effects are expected if handled as recommended with suitable precautions for designated uses.

12. ECOLOGICAL INFORMATION

The following ecological assessment is based on the available ecotoxicity information of the product's components.

Ecotoxicity

This product is not expected to be toxic to aquatic life based on the toxicity values to the following aquatic organisms:

Fish: LC50 (96h) > 100 mg/l, *Brachydanio rerio* (OECD Guideline 203, static)

Aquatic invertebrates: EC50 (48h) > 100 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

Aquatic plants: LC50 (72h) > 100 mg/l, *Scenedesmus subspicatus* (OECD Guideline 201)

Additional information

Do not release product untreated into natural waters. At the present knowledge of the product, no negative ecological effects are expected.

13. DISPOSAL CONSIDERATIONS**Description of waste residues and information on their safe handling & methods of disposal**

Dispose of the product through licensed hazardous waste collectors under Singapore regulations. Provide the hazardous waste collector the sufficient information on the various hazards of this product.

Disposal of any contaminated packaging

Dried material can be disposed off in authorized landfill site in accordance to national regulations. Container should be recycled after cleaning or dispose of the container through licensed hazardous waste collectors under Singapore regulations. Provide the hazardous waste collector the sufficient information on the various hazards of this product in this container.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W



14. TRANSPORT INFORMATION

Land Transport (ADR/RID):

Shipping Name: RESIN SOLUTION, FLAMMABLE LIQUID
UN #: 1866
Hazard Class: 3
(If capacity of receptacles is more than 450L, then declared Class 3, 31C)
Packing Group: III

Label:



Air Transport (IATA/ICAO):

Shipping Name: RESIN SOLUTION, FLAMMABLE LIQUID
UN #: 1866
Hazard Class: 3 No. 31C
Packing Group: III

Label:



Sea transport (IMDG):

Shipping Name: RESIN SOLUTION, FLAMMABLE LIQUID
UN #: 1866
Hazard Class: 3 No. 31C
Packing Group: III
EmS Number: F-E S-D
Marine pollutant: No

Label:



15. REGULATORY INFORMATION

Applicable National Regulations

This product is subject to the requirements in the following acts/regulations:

Workplace Safety and Health Act & Workplace Safety and Health (General Provisions) Regulations
Environmental Protection and Management Act and Environmental Protection and Management
Maritime and Port Authority of Singapore (Dangerous Goods, Petroleum and Explosives)

International Regulations

This product is classified as hazardous pursuant to the provision set forth in Directives 67/548/EEC and 1999/45/EC and/or EC Regulation 1272/2008 (CLP) (and subsequent amendments and supplements). The product thus requires a safety datasheet that complies with the provisions of EC Regulation 1907/2006 and subsequent amendments.

16. OTHER INFORMATION

The information and data contained herein are believed to be accurate and reliable; however, it is the user's responsibility to determine suitability of use. Since QUICSEAL Construction Chemicals Pte. Ltd. cannot know all of the uses to which its products may be put or the conditions of use; it makes no warranties concerning the fitness or suitability of its products for a particular use of purpose.

QUICSEAL CONSTRUCTION CHEMICALS PTE LTD

No. 7 Eunos Avenue 8A Eunos Industrial Estate Singapore 409460 Tel: (65) 6742 4466 Fax: (65) 6741 4666

Website: www.quicseal.com Co.Reg. No.: 198201286W

