



**SAFETY DATA SHEET  
QUICSEAL 373  
EXPO-COAT FLEX**

**1. INFORMATION OF THE SUBSTANCE/COMPOUND AND THE SUPPLIER**

Product Name: QUICSEAL 373 – Expo-coat Flex  
Product Use: Polyurethane top-coat

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  
Respiratory sensitization – Category 1

**GHS LABEL ELEMENTS**

**Symbol(s):**



**Signal Word**

Danger

**Hazard statements:**

H226: Flammable liquid and vapour  
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.

**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.  
P261: Avoid breathing vapours.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.

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Response

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

304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable to breathing.

P342+P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

P370+P378: In case of fire: Use appropriate extinction. (see Section 5)

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	30 – 40%
Isophorone diisocyanate	4098-71-9	223-861-6	615-008-00-5	0.5 – 1.9%

**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**

If aerosol or vapour is inhaled in high concentrations, take the person into the fresh air and keep him warm, let him rest: if there is difficulty in breathing, 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.

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**Notes to physician**

Treat patient symptomatically (decontamination, vital functions).

**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, CO<sub>2</sub>, 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**

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

**Further information**

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

**6. ACCIDENTAL RELEASE MEASURES****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.

**Personal Precautions and Protective equipment**

Response and clean-up crews must be properly trained and must utilize proper protective equipment (see Section 8).

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**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.

**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. Transfer to waste container after approx. 1 hour and do not seal (CO<sub>2</sub> formation). Keep damp and in the open air in a safe place for 7 to 14 days. 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.

Special slow load procedures for "switch loading" must be followed to avoid the static ignition hazard that can exist when higher flash point material (such as fuel oil) is loaded into tanks previously containing low flash point products (such as this product) - see API Publication 2003, "Protection Against Ignitions Arising Out Of Static, Lightning and Stray Currents."

Ensure adequate ventilation in the working area. In all areas where products, like aerosols and /or vapour concentrations, are produced, exhaust ventilation must be provided. Avoid contact with skin and eyes. Explosion protection required.

**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 exposure to temperatures above 35°C and below 50°C. Avoid storage near incompatible materials. Keep away from strong oxidizers.

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

COMPONENTS	CAS No.	Singapore Permissible Exposure Level	
		Short-term PEL	Long-term PEL
Xylene (1,4-Dimethylbenzene, p-Xylene, para-Xylene, p-Xylol)	1330-20-7	150 ppm / 651 mg/m <sup>3</sup>	100 ppm / 434 mg/m <sup>3</sup>
Isophorone diisocyanate	4098-71-9	0.005ppm 0.045mg/m <sup>3</sup>	--

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### 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. Note: The resistance of specific material may vary from product to product as well as with degree of exposure. Consult manufacturer specifications for further information.

#### 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.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid
Color:	Various colors depending on variant
Odour:	Smell of solvent
Flash Point:	> 25°C
Initial boiling point and boiling range:	Not available
Autoignition temperature:	Not available
Flammability Limits:	Not available
Vapor pressure (20°C):	Not available
Water Solubility (25°C):	Insoluble in water
Specific gravity:	1.05 – 1.20

## 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 slowly with water forming CO<sub>2</sub> gas; in closed containers there is a potential risk of bursting owing to the increase of internal pressure.

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**Conditions to avoid**

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

**Incompatible materials**

Keep away from strong oxidizers.

**Hazardous decomposition products**

Carbon monoxide, carbon dioxide and non-combusted hydrocarbons (smoke).

**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: ~ 1,000 – 2,000 mg/kg (the product is harmful in contact with skin)

LC50 (4 hr exposure): ~ 10 – 20 mg/L (the product is harmful if inhaled)

**Skin and Eye Irritation**

The product contains the following components with their respective skin and eye corrosion/irritation classification:

Xylene, CAS No.: 1330-20-7: Skin Irritant Category 2 / Eye Irritant Category 2

Isophorone diisocyanate, CAS No.: 4098-71-9: Skin Irritant Category 2 / Eye Irritant Category 2

**Respiratory / Skin sensitization**

The product may cause an allergic skin reaction (skin sensitization) and asthma symptoms or breathing difficulties if 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.

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**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**

14.

**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.

**14. TRANSPORT INFORMATION****Land Transport (ADG):**

Shipping Name: XYLENES

UN #: 1307

Hazard Class: 3

Packing Group: II

Label:

**Air Transport (IATA):**

Shipping Name: XYLENES

UN #: 1307

Class: 3

Packaging group: II

Label:

**Sea transport (IMDG):**

Shipping Name: XYLENES

UN #: 1307

Class: 3

Packaging group: II

EmS Number: F-E S-D

Marine pollutant: No

Label:

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## 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.

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