



**SAFETY DATA SHEET  
QUICSEAL 713  
FORMSTRIKE**

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

Product Name: QUICSEAL 713 – Formstrike  
Product Use: Chemical release agent for concrete

Details of the supplier:

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

Telephone No. : (65) 6742 4466  
Fax No. : (65) 6741 4666

**2. HAZARDS IDENTIFICATION**

**GHS Classification:**

Flammable Liquid – Category 3  
Carcinogenicity – Category 2  
Specific target organ toxicity (repeated exposure) – Category 2 (blood, thymus, liver)  
Aspiration Hazard – Category 1  
Chronic toxicity to aquatic environment – Category 2

**GHS LABEL ELEMENTS**

**Symbol(s):**



**Signal Word**

Danger

**Hazard Statements:**

H226: Flammable liquid and vapour.  
H304: May be fatal if swallowed and enters airways.  
H315: Causes skin irritation.  
H332: Harmful if inhaled  
H351: Suspected of causing cancer.  
H373: May cause damage to blood, liver, & thymus through prolonged or repeated exposure  
H411: Toxic to aquatic life with long lasting effects.

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**Precautionary Statements:****Prevention**

- P201: Obtain special instructions before use.  
 P202: Do not handle until all safety precautions have been read and understood.  
 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  
 P242: Use only non-sparking tools.  
 P243: Take precautionary measures against static discharge.  
 P261: Avoid breathing mist/vapours/spray.  
 P264: Wash hands and forearms thoroughly after handling  
 P271: Use only outdoors or in well-ventilated areas.  
 P273: Avoid release to the environment.  
 P280: Wear protective gloves/protective clothing/eye protection/face protection

**Response**

- P301+P310: IF SWALLOWED: Immediately call a poison center or doctor.  
 P303+P361+P353: IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with soap and water.  
 P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
 P308+P313: If exposed or concerned: Get medical advice/attention.  
 P312: Call a POISON CENTER or doctor/physician if you feel unwell.  
 P331: Do NOT induce vomiting.  
 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 water spray, fog or foam to extinguish.  
 P391: Collect spillage.

**Storage**

- P403+P235: Store in a well ventilated place. Keep cool.  
 P405: Store locked up.

**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
High Flash Point Hydrocarbon	68334-30-5	--	--	80 – 90%
Fatty Acid	61790-12-3	263-107-3	--	10 – 20%

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#### 4. FIRST-AID MEASURES

##### Eye Contact

In case of contact with eyes, immediately flush with clean, low-pressure water for at least 15 minutes. Hold eyelids open to ensure adequate flushing. Seek medical attention.

##### Skin Contact

Remove contaminated clothing. Wash contaminated areas thoroughly with soap and water or with waterless hand cleanser. Obtain medical attention if irritation or redness develops. Thermal burns require immediate medical attention depending on the severity and the area of the body burned.

##### Inhalation

Remove person to fresh air. If person is not breathing, provide artificial respiration. If necessary, provide additional oxygen once breathing is restored if trained to do so. Seek medical attention immediately.

##### Ingestion

DO NOT INDUCE VOMITING. Do not give liquids. Obtain immediate medical attention. If spontaneous vomiting occurs, lean victim forward to reduce the risk of aspiration. Monitor for breathing difficulties. Small amounts of material which enter the mouth should be rinsed out until the taste is dissipated.

#### 5. FIRE-FIGHTING MEASURES

##### Specific hazards arising from chemicals

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. Will float and can be reignited on surface water. Runoff to sewer may cause fire or explosion hazard.

Hazardous combustion products may include: A complex mixture of airborne solid and liquid particulates and gases (smoke), oxides of sulphur, unidentified organic and inorganic compounds. Carbon monoxide may be evolved if incomplete combustion occurs.

##### 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.

##### Unsuitable Fire-extinguishing Media

Do not use direct water jets on the burning product as they could cause a steam explosion and spread of the fire. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam

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### **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.

## **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).

### **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 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."

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**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. This storage area should comply with NFPA 30 "Flammable and Combustible Liquid Code". Avoid storage near incompatible materials. The cleaning of tanks previously containing this product should follow API Recommended Practice (RP) 2013 "Cleaning Mobile Tanks In Flammable and Combustible Liquid Service" and API RP 2015 "Cleaning Petroleum Storage Tanks."

Keep away from strong oxidizers.

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

For component: High Flash Point Hydrocarbon, CAS No.: 68334-30-5

ACGIH: 100 mg/m<sup>3</sup> TWA (inhalable fraction & vapor, as total hydrocarbons, listed under Diesel fuel)

Skin - potential significant contribution to overall exposure by the cutaneous route (listed under Diesel fuel)

**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:**H6nd 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.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid	Flammability limit:	1% (v/v)
Colour:	Light yellowish	Flammability limit:	6% (v/v)
Density:	800-900kg/m <sup>3</sup> @ 15°C	Auto-ignition Temperature:	Not Available
Initial boiling point:	150°C	Explosion limits:	Not Available
Final boiling point:	390°C	Vapour Pressure:	Not Available
Flash point:	> 49°C	Solubility in water:	Immiscible

## 10. STABILITY AND REACTIVITY

### Chemical stability

The product is stable in normal conditions of use and storage.

### Possibility of hazardous reactions

No hazardous reactions are foreseeable in normal conditions of use and storage.

### 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, oral: > 5,000 mg/kg (the product is not toxic/harmful if swallowed)

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

LC50, inhalation: ~ 11 – 20 mg/L (the product is harmful if inhaled)

### Skin and Eye Irritation

The product causes skin irritation (Category 2)

### Respiratory / Skin sensitization

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

### Germ cell mutagenicity

Positive in in-vitro, but negative in in-vivo mutagenicity assays.

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165581CC1-2014-AQ-GER-DMAKS



165582CC1-2014-AE-GER-DMAKS

**Carcinogenicity**General Product Information:

Suspected of causing cancer.

Component Carcinogenicity

For component: High Flash Point Hydrocarbon, CAS No.: 68334-30-5

ACGIH: A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans (listed under Diesel)

**Reproductive and Developmental toxicity**

Based on the assessment of available information, the product is not expected to impair fertility nor expected to be a developmental toxicant

**Specific target organ toxicity (repeated exposure)**

Based on the available information, this product may cause damage to the blood, thymus, and liver through prolonged or repeated exposure.

**Aspiration Respiratory Organs Hazard**

The major health threat of ingestion occurs from the danger of aspiration (breathing) of liquid drops into the lungs, particularly from vomiting. Aspiration may result in chemical pneumonia (fluid in the lungs), severe lung damage, respiratory failure and even death.

**12. ECOLOGICAL INFORMATION**

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

**Acute toxicity to the aquatic environment**

Fish: LC50 (96h) > 1 to ≤ 10 mg/l

Aquatic invertebrates: EC50 > 1 to ≤ 10 mg/l

Aquatic plants: LC50 (72h) > 1 to ≤ 10 mg/l

This product is toxic to aquatic life – Acute toxicity to the aquatic environment (Category 2)

**Chronic toxicity to the aquatic environment**

NOEC/NOEL expected to be > 0.01 to ≤ 0.1 mg/l (based on modelled data)

By estimation this product is considered toxic to aquatic life with long lasting effects (Chronic toxicity to the aquatic environment Category 2)

**Mobility**

Partly evaporates from water or soil surfaces, but a significant proportion will remain after one day. If product enters soil, one or more constituents will be mobile and may contaminate groundwater. Large volumes may penetrate soil and could contaminate groundwater. Floats on water.

**Persistence and biodegradability**

Major constituents are inherently biodegradable. The volatile constituents will oxidize rapidly by photochemical reactions in air.

**Bioaccumulative potential**

Contains constituents with the potential to bioaccumulate. Log Kow ≥ 4.

**Other adverse effects**

Films formed on water may affect oxygen transfer and damage organisms.

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**13. DISPOSAL CONSIDERATIONS**

**Description of waste residues and information on their safe handling & methods of disposal**

Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. Do not dispose into the environment, in drains or in water courses. Do not dispose of tank water bottoms by allowing them to drain into the ground. This will result in soil and groundwater contamination. Waste arising from a spillage or tank cleaning should be disposed of in accordance with prevailing regulations, preferably to a recognised collector or contractor. The competence of the collector or contractor should be established beforehand.

**Disposal of any contaminated packaging**

Send to drum recoverer or metal reclaimer. Drain container thoroughly. After draining, vent in a safe place away from sparks and fire. Residues may cause an explosion hazard if heated above the flash point. Do not puncture, cut or weld uncleaned drums. Do not pollute the soil, water or environment with the waste container. Comply with any local recovery or waste disposal regulations.

**Local legislation**

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

**14. TRANSPORT INFORMATION**

**Land Transport (ADG):**

Shipping Name: DIESEL FUEL  
 UN #: 1202  
 Hazard Class: 3  
 Packing Group: III

Label:



**Air Transport (IATA):**

Shipping Name: DIESEL FUEL  
 UN #: 1202  
 Class: 3  
 Packaging group: III  
 Packing instruction: 366 (cargo aircraft)  
 355 (passenger aircraft)  
 Packing instruction: Y344

Label:



**Sea transport (IMDG):**

Shipping Name: DIESEL FUEL  
 UN #: 1202  
 Class: 3  
 Packaging group: III  
 EmS Number: F-E S-E  
 Marine pollutant: Yes

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.

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