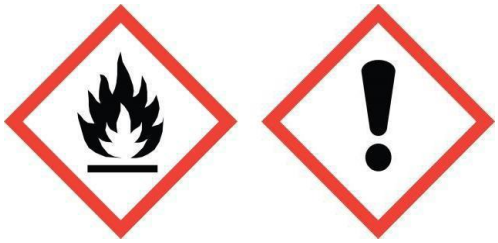
1. IDENTIFICATION

Product Name: VQ-3200 Nano Silica Protective Coating (NSPC)
Recommended Use: Protective coating for concrete, stone, masonry, Tiles etc
Supplier: Lionkore
Address: Distribution warehouse: Unit 2,43-45 Davies Road, Padstow NSW 2211
Telephone: +61 (0) 404721721
Emergency phone: +61 (0) 404721721

2. HAZARDS IDENTIFICATION

Hazardous Nature: This product is classified as hazardous under GHS for Australia criteria
Hazardous Classification: Flammable Liquids: 2; Acute Toxicity - Dermal: 4
Hazardous Statement: Highly Flammable liquid and vapour
GHS Pictograms



Hazard Statements
H225: Highly flammable liquid and vapour
H320: Causes eye irritation
H336: May cause drowsiness or dizziness
Precautionary Statements
P403: Store in a well ventilated place.
P210: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources.No smoking.
P262: Do not get in eyes, on skin, or on clothing.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes.
Remove contact lenses if present and easy to do – continue rinsing.
P243: Take precautionary measures against static discharge.
P370+378: In case of fire: Use sand, earth, or chemical foam to extinguish.
Dangerous Goods Classification 3 Poisons Schedule 5

3. COMPOSITION: Information on Ingredients

Ingredients

Ingredient Name	CAS No	Proportion
Isopropyl Alcohol	67-63-0	40-60%
Ingredients determined to be non-hazardous		Balance

4. FIRST AID MEASURES

For advice, contact Poisons Information Centre (Phone Australia: 13 1126) or a doctor.

Ingestion: If swallowed, DO NOT induce vomiting. Keep at rest. Seek immediate medical attention.

Eye Contact: Flush eyes with large amounts of water until irritation subsides. Seek immediate medical attention.

Skin Contact: Flush area with large amounts of water and wash area with soap if available. Remove contaminated clothing, including shoes, and launder before reuse. Seek medical attention for skin irritations.

Inhalation: Using proper respiratory protection, immediately remove the affected victim from exposure. Administer artificial respiration if breathing is stopped. Keep at rest. Seek immediate medical attention.

First Aid facilities: Provide eye baths and safety showers.

Medical Attention: Treat according to symptoms. Avoid gastric lavage: risk of aspiration of product to the lungs with the potential to cause chemical pneumonitis.

5. FIRE FIGHTING MEASURES

Shut off product that may 'fuel' a fire if safe to do so. Allow trained personnel to attend a fire in progress, providing firefighters with this Safety Data Sheet. Prevent extinguishing media from escaping to drains and waterways.

Suitable extinguishing media: Water spray, water fog or fine mist, alcohol foam

Hazards from combustion products: Carbon dioxide and carbon monoxide

Precautions for fire fighters and special protective equipment: Full protective clothing and self-contained breathing apparatus

Hazchem Code: • 2YE

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures

Prevent fluid from escaping to drains and waterways. Contain leaking packaging in a containment drum. Prevent vapours from building up in confined areas. Ensure that drain valves are closed at all times. Clean up and report spills immediately.

Methods and materials for containment

Major Land Spill

- Eliminate sources of ignition.
- Warn occupants of downwind areas of possible fire and explosion hazard.
- Prevent liquid from entering sewers, watercourses, or low-lying areas.
- Keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Advise authorities if substance has entered a watercourse or sewer or has contaminated soil or vegetation.
- Take measures to minimise the effect on the ground water.
- Contain the spilled liquid with sand or earth.
- Recover by pumping – use explosion proof pump or hand pump – or with a suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See "First Aid Measures" and "Stability and Reactivity"

Major Water Spill

- Eliminate any sources of ignition.
- Warn occupants and shipping in downwind areas of possible fire and explosion hazard.
- Notify the port or relevant authority and keep the public away from the area.
- Shut off the source of the spill if possible and safe to do so.
- Confine the spill if possible.
- Remove the product from the surface by skimming or with suitable absorbent material.
- Consult an expert on disposal of recovered material and ensure conformity to local disposal regulations.
- See "First Aid Measures" and "Stability and Reactivity".

7. HANDLING AND STORAGE

Precautions for safe handling

This product is flammable. Do not open near open flame, sources of heat or ignition. No smoking. Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Use grounding leads to avoid discharge (electrical spark).

Conditions for safe storage

Store in a cool, dry place away from direct sunlight. Do not pressurise, cut, heat or weld containers - residual vapours are flammable. This product is flammable and will fuel a fire in progress.

Incompatible materials

Natural Rubber, Butyl Rubber, EPDM, Polystyrene

8. EXPOSURE CONTROLS: PERSONAL PROTECTION

Exposure Guidelines

ISOPROPANOL (CAS # 67-63-0)
The time weighted average concentration (TWA) for this product is: 983 mg/m^3 (400 ppm), which means the highest allowable exposure concentration in an eight-hour day for a five-day working week. The short-term exposure limit (STEL) is: 1230 mg/m^3 (500 ppm), which is the maximum allowable exposure concentration at any time.
PROPYLENE GLYCOL MONOETHY ETHER: (CAS # 1569-02-4)
WA: 100 STEL: 150 (ppm) from ACGIH (TLV) [1995] TWA: 369 STEL: 553 (mg/m3) from ACGIH [1995] Consult local authorities for acceptable exposure limits.
N-BUTYL ACETATE: (CAS # 123-86-4)
150 ppm (710 mg/m3) OSHA TWA
200 ppm (950 mg/m3) OSHA STEL (vacated by 58 FR 35338, June 30, 1993) 150 ppm ACGIH TWA 200 ppm ACGIH STEL
150 ppm (710 mg/m3) NIOSH recommended TWA 10 hour(s)
200 ppm (950 mg/m3) NIOSH recommended STEL

Biological limit values: No data available

Engineering Controls: Ventilation: The use of local exhaust ventilation is recommended to control process emissions near the source. Laboratory samples should be handled in a fume hood. Provide mechanical ventilation of confined spaces. Use explosion-proof ventilation equipment.

Personal Protective Equipment

Respiratory Protection: Where concentrations in air may exceed the limits described in the National Exposure Standards, it is recommended to use a half-face filter mask to protect from overexposure by inhalation. A type "A" filter material is considered suitable for this product.

Eye Protection: Always use safety glasses or a face shield when handling this product.

Skin/ Body Protection: Always wear long sleeves and long trousers or coveralls, and enclosed footwear or safety boots when handling this product. It is recommended that chemical resistant gloves (e.g. PVC) be worn when handling this product.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state: liquid
Colour: transparent
Odour: slight ethers odor
Melting point: n/a Boiling point: 145 °c
Vapour pressure (kpa): 0.05kpa at 25 °c combustion heat(kj/mol): n/a
Critical temperature: n/a Critical pressure(mpa): n/a Ignition temperature: n/a flash point: 74 °c
Upper explosive limit %(v/v): n/a Lower explosive limit %(v/v): n/a vapour density (air=1): 5.11
Solubility in water: reacts slowly (% by weight) percent volatiles: not determined

10. STABILITY AND REACTIVITY

Chemical Stability: Stable at room temperature and pressure

Conditions to avoid: Keep away from sources of heat and ignition, open flames.

Hazardous decomposition products: Carbon dioxide, carbon monoxide and organic complexes on incomplete burning/oxidation

Hazardous reactions: Stored mixtures with MEK produce explosive peroxides. Increased rate of peroxide formation with Isobutanol. Peroxide production sharply decreases the Autoignition Temperature. Violent, explosive reactions with metal oxides, oxidising agents, halogenate
Reacts with water or moisture to form methanol. Hazardous combustion products
Burning can produce the following combustion products: Oxides of carbon and silicon.
Carbon monoxide is highly toxic if inhaled; carbon dioxide in sufficient concentrations can act as an asphyxiant. Acute overexposure to the products of combustion may result in irritation of the respiratory tract.

Hazardous Polymerisation: Will not occur

11. TOXCOLOGICAL INFORMATION

Potential Health Effects

Ingestion: Accidental ingestion of the material may be damaging to the health of the individual.
Eye Contact: This product is irritating to eyes and can cause serious eye irritation, redness.

Skin Contact: This product is irritating to the skin with prolonged exposure. It may result in dryness and cracking.

Inhalation: This product is irritating to the respiratory tract. In high doses, this product has narcotic effects.
Respiratory or skin sensitisation: No information available. **Germ cell mutagenicity**: No information available.
Carcinogenicity: Not classifiable as to its carcinogenicity to humans. **Reproductive toxicity**: No information available

Toxicological Information

Oral LD50: 2-propanol: 5045 mg/kg (oral, rat) Dermal TCLo: TDLo: 223 mg/kg (oral, human)
Oral LD50 (rat): 5045 mg/kg Inhalation LC50 (rat): 16,000 ppm/8 hours
Skin LD50 (rabbit): 12,800 mg/kg Skin Irritation (rabbit): 500 mg - mild
Eye Irritation (rabbit): 10 mg - moderate: 100 mg severe

12. ECOLOGICAL INFORMATION

Ecotoxicity

Aquatic Toxicity

Fish Toxicity (rainbow trout, goldfish, bluegill): LC50(96hr): Based on data for a similar component or preparation, this product is expected to be toxic to aquatic organisms.
Daphnia Magna EC50 (24 hr): Not available
Blue-green algae (Toxicity threshold 7-8 days): Not available
Green algae (Toxicity threshold 7-8 days): Not available

Mobility

This product is highly volatile and will rapidly evaporate to the air if released into the water

13. DISPOSAL CONSIDERATIONS

Disposal Methods

Empty packaging should be taken for recycling, recovery or disposal through a suitably qualified or licensed contractor. Care should be taken to ensure compliance with national and local authorities. Packaging may still contain fumes and vapours that are flammable and harmful. Ensure that empty packaging is allowed to dry.

Special Precautions for Landfill or Incineration

This product is NOT suitable for disposal by either landfill or via municipal sewers, drains, natural streams or rivers. This product is ashless and can be burned directly in appropriate equipment.

14. TRANSPORT INFORMATION

Dangerous according to Australian Dangerous Goods (ADG) Code, IATA and IMDG/IMSBC criteria.
UN Number: 1219, ISOPROPANOL (ISOPROPYL ALCOHOL)
Hazchem Code: •2YE
Special Provisions: None allocated
Limited quantities: ADG 7 specifies a Limited Quantity value of 1 L for this class of product.
Dangerous Goods Class: Class 3: Flammable liquids. Packing Group: II

UN No.	1219
Proper Shipping Name	Isopropyl Alcohol
DG Class	3
Sub. Risk	None
Pack Group	II
Hazchem	• 2YE

Dangerous Goods Segregation

This product is classed as Dangerous Goods Class 3, packing group II. Please consult the Australian Dangerous Goods Code for Transport by Road and Rail for information

15. REGULARTORY INFORMATION

Country/ Region: Australia
Inventory: AICS
Status: Listed
Poisons Schedule: 5

16. OTHER INFORMATION

Abbreviations:

AICS: Australian Inventory of Chemical Substances
CAS Number: Chemical Abstracts Number
IARC: International Agency for Research on Cancer
NOHSC: National Occupational Health and Safety Council

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