Electronic PCBA Waterproof and Moisture-proof Nano-coating Liquid L4

No. PQ-RD3-TL001

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1. Product and Company Information

Product name: Electronic PCBA waterproof and moisture-proof nano-coating liquid

product code: L4

Company: Shenzhen Paiqi Nano-Tech Co. Ltd.

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2. Hazards Identification

2.1 Potential Health Effects

Eye contact:

Contact with the eyes during product use is not expected to result in significant irritation.

Skin contact:

Contact with the skin during product use is not expected to result in significant irritation.

Inhalation:

If thermal decomposition occurs: May be harmful if inhaled.

Ingestion:

No health effects are expected.

3. Ingredients

Chemical Name	CAS NO.	Concentration（%，w/w）
Perfluoro-compound	86508-42-1	87~92%
Perfluoroacrylic acid	Trade secret	8%~13%

4. First Aid Measures

4.1 First Aid Procedures

The following first aid recommendations are based on an assumption that appropriate personal and industrial hygiene practices are followed.

Eye contact:

Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin contact:

Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation:

If signs/symptoms develop, remove person to fresh air. If signs/symptoms persist, get medical attention.

If swallowed:

If signs/symptoms develop, get medical attention. No need for first aid is anticipated.

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5. Firefighting Measures

5.1 Flammable Properties

Autoignition temperature: not detected

Flash point: no flash point

Flammable limits: none

5.2 Special hazards arising from the substance or mixture

Exposure to extreme heat can give rise to thermal decomposition.

Hazardous Decomposition or By-Products	Substance Condition
Carbon monoxide	During Combustion
Carbon dioxide	During Combustion
Hydrogen Fluoride	During Combustion
Toxic Vapor, Gas, Particulate	During Combustion

5.3 Protection of Firefighters

Special fire fighting procedures

Water may be used to blanket the fire. Exposure to extreme heat can give rise to thermal decomposition. Wear full protective equipment (Bunker Gear) and a self-contained breathing apparatus (SCBA).

Unusual fire and explosion hazards

No unusual fire or explosion hazards are anticipated. No unusual effects are anticipated during fire extinguishing operations. Avoid breathing the products and substances that may result from the thermal decomposition of the product or the other substances in the fire zone. Keep containers cool with water spray when exposed to fire to avoid rupture.

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6. Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Ventilate the area with fresh air.

Environmental precautions

For larger spills, cover drains and build dikes to prevent entry into sewer systems or bodies of water. Collect the resulting residue containing solution. Place in a metal container approved for transportation by appropriate authorities. Dispose of collected material as soon as possible.

7. Handling and Storage

Handling

Do not eat, drink or smoke when using this product. Wash exposed areas thoroughly with soap and water. Contents may be under pressure, open carefully. Avoid skin contact with hot material. For industrial or professional use only. No smoking: Smoking while using this product can result in contamination of the tobacco and/or smoke and lead to the formation of the hazardous decomposition products mentioned in the Reactivity Data section of this MSDS. Store work clothes separately from other clothing, food and tobacco products. Use general dilution ventilation and/or local exhaust ventilation to control airborne exposures to below Occupational Exposure Limits.

Storage

Keep container in well-ventilated area. Keep container tightly closed. Store away from heat. Store away from strong bases.

8. Exposure Controls/Personal

8.1 Engineering Controls

Use with appropriate local exhaust ventilation. Do not use in a confined area or areas with little or no air movement. For those situations where the material might be exposed to extreme overheating due to misuse or equipment failure, use with appropriate local exhaust ventilation sufficient to maintain levels of thermal decomposition products below their exposure guidelines. Provide local exhaust ventilation at transfer points. Provide appropriate local exhaust when product is heated.

8.2 Personal Protective Equipment (PPE)

Eye/face protection

Avoid eye contact.

The following eye protection(s) are recommended: Safety Glasses with side shields.

Skin protection

Avoid skin contact. Avoid skin contact with hot material. Wear heat insulating gloves when handling this material to prevent thermal burns. Select and use gloves and/or protective clothing to prevent skin contact based on the results of an exposure assessment. Consult with your glove and/or protective clothing manufacturer for selection of appropriate compatible materials. Gloves made from the following material(s) are recommended: Nitrile Rubber.

Respiratory protection

Under normal use conditions, airborne exposures are not expected to be significant enough to require respiratory protection. If thermal degradation products are expected, use fullface supplied air respirator.

9. Physical and Chemical Properties

Appearance and color	Clear, colorless Liquid

Odor	Slight ethereal odor
Flammability	Nonflammable
Boiling point	95 ℃
Viscosity (*cSt*)	0.8, 25 ℃
Density	1.79
Vapor pressure	50.6mmHg, 20 ℃
Relative vapor density	14.0 (Air = 1)
Percent volatile	100%
Solubility	Insoluble in water

10. Stability and Reactivity

Acute toxicity: no known effect

Stability: stable

Unstable temperature: unknown

Conditions to avoid: incompatible materials, excess heat, exposure to humid air or water

Materials to avoid: oxidant, reducing agent, acid, alkali

Corrosivity: noncorrosive

Hazardous decomposition or by-products:

Heat toxic vapor, gas, particulate produced by high temperatures.

11. Toxicological Information

11.1 Penetrations Routes

Contact or ingestion of the product, Inhalation of gases from thermal decomposition.

11.2 Adverse effects for the Human Health

Delayed and/or immediate effects after short and/or prolonged exposure:

Acute toxicity: no known effect

Local effects/irritating power: no known effect

Sensitization: no known effect

Chronic toxicity: no known effect

Carcinogenicity: no known effect

Mutagenicity: no known effect

Reproduction toxicity: no known effect

Experimental toxicological data: no available data

12. Ecological Information

12.1 Ecotoxicity

Acute toxicity test for fish: no available data

Acute activity inhibition test for mites: no available data

Algae growth inhibition test: no available data

Toxicity to microorganisms: no available data

Persistence and degradability: no available data

12.2 Bioaccumulation

No available data.

12.3 Mobility in Soil

No available data.

13. Disposal Considerations

Waste treatment

Send the waste product to thermal destruction, using high - temperature incinerators designed to burn fluorine compounds.

Packaging treatment

Reuse, when possible, the containers, after thorough washing. Send the waste containers to authorised landfills, according to local laws and regulations.

14. Transport Information

Specific hazards

Product not dangerous for transportation.

Packaging information

Product usually shipped in fluorinated containers of different capacities (drums, jerricans, tanks).

15. Regulatory Information

Regulations on the Safety Management of Chemical Dangerous Goods (2011-02-16)

Classification and Marking of Commonly Used Dangerous Chemicals (GB13690-1992)

General Rules for the Storage of Commonly Used Dangerous Chemicals (GB15603-1995)

16. Other Information

Data organization department: Technical Department

Disclaimer: The information given in this safety data sheet is for safety purpose only. It is given in good faith and based on the best knowledge and experience of the company at the date of issuing. The company is not responsible for damages caused by the use of the product in applications for which it was not intended or for conditions of use outside its control. Material users should review the information and recommendations in the specific context or consult the technician.