VACUUM PLATING SPECIAL UV TOPCOAT

UV Special Adhesion Primer HZ-2B160-QH
Material Safety Data Sheet (MSDS)

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: UV Special Adhesion Primer

Product model: HZ-2B160-QH

Supplier: Hunan Hengxing New Materials Technology Co., Ltd.

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Recommended use: Coating for calcium silicate boards.

2. HAZARDS IDENTIFICATION

China GHS classification:

- Skin corrosion/irritation: Category 2
- Hazardous to the aquatic environment (chronic): Category 2

Routes of exposure:

Eye and skin contact, inhalation, accidental ingestion.

Possible symptoms after exposure:

Eyes: Direct contact may cause severe irritation.

Skin: Causes irritation, itching, and redness; excessive exposure may cause skin burns.

Inhalation: Mist or vapor may irritate nose and throat; excessive inhalation may cause discomfort such as headache, dizziness, or vomiting.

Ingestion: May cause burns to mouth, throat, or stomach.

Environmental hazards:

Harmful to the environment; special attention should be paid to preventing contamination of water bodies and soil.

Fire and explosion hazards:

Flammable liquid; may ignite in high-temperature environments above its ignition point.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Mixture: Mixture

Component	CAS No.	Content (%)
Polyester acrylate resin	25135-73-3	20–30
Epoxy acrylate resin	1524-32-8	15–25
Filler	—	20–25
TPGDA (Tripropylene glycol diacrylate)	42978-66-5	10–15
HEMA (2-Hydroxyethyl methacrylate)	15625-89-5	5–8
Photoinitiator	748-98-5	4–6
Additives	—	0.5–1

4. FIRST AID MEASURES

General:

If adverse symptoms occur or in any case of doubt, seek medical attention promptly.

Show this MSDS to the physician.

Eye contact:

1. Immediately wipe or absorb excess chemical.
2. Hold eyelids open and rinse thoroughly with gently flowing lukewarm water.
3. Avoid allowing contaminated rinse water to enter the unaffected eye.
4. Seek immediate medical attention if symptoms are severe or persistent.

Skin contact:

1. Immediately remove contaminated clothing and shoes.
2. Wipe or absorb excess chemical.
3. Wash thoroughly with soap and plenty of water until the chemical is completely removed.
4. If pain or discoloration occurs, seek medical treatment.

Inhalation:

1. Ensure rescuers wear appropriate protection before entering the area.
2. Move the affected person away from the source to fresh air as quickly as possible.
3. If breathing has stopped, administer artificial respiration immediately and seek medical care.

Ingestion:

- If swallowed accidentally, do NOT rinse the mouth or induce vomiting on your own.
- Immediately seek medical treatment. Do not allow an unconscious person to drink or induce vomiting.
- Vomiting should only be carried out under medical supervision.

Protection for first-aiders:

Wear protective gloves to avoid direct contact with spilled or contaminated material.

Advice to physician:

In cases of ingestion, consider gastric lavage under medical supervision.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media:

Chemical dry powder, carbon dioxide, alcohol-resistant foam.

Special hazards:

1. Vapors may be lighter than air and travel to distant ignition sources, causing flashback.
2. Liquid may float on water; fire may spread over the surface.
3. Containers exposed to fire may rupture or explode.
4. High temperatures or combustion may produce toxic gases.

Firefighting procedures:

1. Withdraw to a safe distance or protected location to fight the fire.
2. Unprotected personnel must not enter the f ire area.
3. Isolate uninvolved materials.
4. Stay upwind to avoid hazardous vapors and smoke.
5. Use water spray to cool exposed tanks or containers.
6. If leakage cannot be stopped and no immediate danger exists, allow controlled burning.
7. Water spray may be ineffective on pool fires unless firefighters are specially trained.

Protective equipment for firefighters:

Wear self-contained breathing apparatus, full protective clothing, and protective gloves.

6. ACCIDENTAL RELEASE MEASURES

Emergency response:

For small spills, promptly collect leaked coating into suitable containers and wipe the floor clean

with rags to prevent contamination.

Personal precautions:

1. Keep unauthorized and unprotected personnel away until cleanup is complete.
2. Cleanup must be carried out by trained personnel.
3. Wear appropriate personal protective equipment.

Environmental precautions:

1. Ensure good ventilation of the affected area.
2. Remove all ignition sources.
3. Prevent spilled material from entering drains, sewers, or confined spaces.

Methods for containment and cleanup:

1. If safe, stop or reduce the leak.
2. Small spills: dike and absorb with sand, earth, or inert material; wash area with water.
3. Large spills: contact fire and emergency response authorities for assistance.

7. HANDLING AND STORAGE

Handling:

1. Use only in well-ventilated areas; seal containers promptly after use.
2. Keep away from open flames, sparks, arcs, and high-temperature surfaces.
3. Ensure equipment is properly grounded to prevent static discharge.
4. Use explosion-proof electrical equipment and tools.

Storage:

1. Store in a dry, cool, well-ventilated place.
2. Avoid direct sunlight; keep away from heat, open flames, and electrical sources.
3. Keep containers upright; do not invert or stack improperly.
4. Do not store with incompatible substances.
5. Recommended packaging: clean, uncontaminated original containers provided by supplier.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering controls:

1. Use non-sparking, grounded ventilation systems.
2. Exhaust air to a safe outdoor location with environmental protection measures.
3. Provide sufficient fresh air makeup.
4. Install equipment away from heat sources and ignition sources.

Personal protective equipment:

Respiratory protection:

- Below exposure limits: mask with organic vapor cartridges as needed.
- Above exposure limits: positive-pressure full-face supplied-air respirator.

Hand protection:

- Impermeable gloves (e.g. PVC, 4H or equivalent).

Eye protection:

- Chemical safety goggles.

Skin and body protection:

1. Anti-static coverall protective clothing.
2. Appropriate safety footwear.
3. Emergency shower and eyewash equipment in the work area.

Hygiene measures:

1. Remove contaminated clothing promptly; wash before reuse or dispose.
2. No eating, drinking, or smoking in the work area.
3. Wash hands thoroughly after handling.
4. Keep the workplace clean and orderly.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Light grey viscous liquid

Viscosity: 80–100 s / 40°C (DIN 4 cup equivalent)

Melting point: No data

Boiling point: No data

Relative density (water = 1): No data

Relative vapor density (air = 1): No data

Saturated vapor pressure: No data

Log Kow: No data

Heat of combustion: No data

Critical temperature: No data

Critical pressure: No data

Flash point: No data

Ignition temperature: No data

Explosive limits: No data

Minimum ignition energy: No data

Maximum explosion pressure: No data

Solubility: Insoluble in water; miscible with organic solvents.

Special notes:

This product is a very low-VOC, environmentally friendly coating. Parameters such as melting point, boiling point, and explosive limits are not specifically determined. High temperatures may cause fire. After curing into a film, the product provides a certain degree of flame retardancy.

10. STABILITY AND REACTIVITY

Stability: No specific data; generally stable under recommended conditions.

Possibility of hazardous polymerization:

- UV/strong light exposure may initiate polymerization.
- Heating may cause exothermic polymerization.

Incompatible materials:

- Avoid contact with free radicals and radical initiators such as peroxides and certain metal ions.

Conditions to avoid:

- Direct sunlight, temperatures above 50°C, direct heat sources, friction or other heat buildup.

Hazardous decomposition products:

No specific data; combustion may produce toxic gases typical of organic materials.

11. TOXICOLOGICAL INFORMATION

Acute toxicity: Not determined.

Skin corrosion/irritation: Slightly irritating.

Eye irritation: Irritating to mucous membranes.

Respiratory or skin sensitization: Slight irritation reported.

Germ cell mutagenicity: No data.

Carcinogenicity: No data.

Reproductive toxicity: No data.

12. ECOLOGICAL INFORMATION

Acute toxicity: Not determined.

Skin/eye irritation to organisms: Not specified.

Sensitization: Not specified.

Other data: No detailed data available; avoid release to the environment.

13. DISPOSAL CONSIDERATIONS

Waste characteristics: No specific data.

Product: Dispose of by controlled incineration or in accordance with national and local regulations.

Contaminated packaging: Return empty containers to manufacturer where possible or dispose according to local regulations.

Disposal precautions: Consult relevant national and local regulations before disposal.

14. TRANSPORT INFORMATION

Dangerous goods number: No data

UN number: 1139

UN proper shipping name: Not specified in original (consult transport regulations if needed)

UN hazard class: No data

Packing group: No data

Marine pollutant: Yes

Recommended packaging:

Screw-cap glass bottles, crimped-cap glass bottles, plastic bottles, or metal drums

within standard wooden boxes.

Transport precautions:

- Check packaging integrity and sealing before transport.
- Ensure no leakage, collapse, fall, or damage during transport.
- Vehicles must be equipped with suitable fire-fighting and spill emergency equipment.
- Protect from direct sunlight, rain, and high temperatures during transport.

15. REGULATORY INFORMATION

Applicable regulations (China), including but not limited to:

- Labor Protection Regulations
- Environmental Protection Law of the People's Republic of China
- Road Traffic Safety Law of the People's Republic of China

Reference standards:

- Occupational Exposure Limits for Hazardous Agents in the Workplace (GBZ 2.1—2007)
- Regulations on Safe Management of Hazardous Chemicals (2011)
- Detailed Rules for the Implementation of the Regulations on Safe Management of Hazardous Chemicals (1992)
- Regulations for Safe Use of Chemicals in the Workplace
- Classification and Marking of Commonly Used Dangerous Chemicals (GB 13690-92)
- Safety Data Sheet for Chemical Products – Content and Order of Sections (GB/T 16483-2008)

16. OTHER INFORMATION

Issue date: 10 June 2025

Note: All information provided is based on our current knowledge and applicable laws.

Users are responsible for taking all necessary measures to comply with local regulations.

This MSDS describes safety requirements for the safe use of the product and does not constitute a guarantee of specific product properties.