

Material Safety Data Sheet

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical product name	: Liquid Photoimageable Solder Mask (Main agent)
Identity (Trade Name As Used On Label)	: PSR-4000 LEW7S
Name of manufacturer	: TAIYO INK (SUZHOU) CO.,LTD.
Address	: No.26 Taishan Road, Suzhou New District, Suzhou City Jiangsu Province,P.R.China
Phone number	: 0512-66655550
Emergency Phone Number	: 4008-851-060
MSDS Number	: MSC-031105-A-01
Date Prepared	: May 28, 2015
For other information	: -

2.HAZARDS IDENTIFICATION

Physical hazards	
Flammable liquids	Category 4
Health hazards	
Acute toxicity oral	Not classified
Acute toxicity dermal	Not classified
Acute toxicity inhalation;gas	Classification not possible
Acute toxicity inhalation;vapor	Classification not possible
Acute toxicity inhalation;dust	Classification not possible
Acute toxicity inhalation;mist	Classification not possible
Skin corrosion/irritation	Classification not possible
Eye damage/irritation	Category 2A
Respiratory sensitization	Classification not possible
Skin sensitization	Classification not possible
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Category 2
Effects on or via lactation	Classification not possible
Specific target organ systemic toxicity(Single exposure)	Classification not possible
Specific target organ systemic toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible
Environmental hazards	
Hazardous to the aquatic environment Acute hazard	Classification not possible
Hazardous to the aquatic environment Chronic hazard	Classification not possible

Symbol

Warning

Hazard statement

Combustible liquid
 Causes serious eye irritation.
 Suspected of damaging fertility or the unborn child

Precautionary statement

Prevention	<p>Obtain special instructions before use.</p> <p>Do not handle until all safety precautions have been read and understood.</p> <p>Keep away from heat/sparks/open flames/hot surfaces. — No smoking.</p> <p>Wash ... thoroughly after handling.</p> <p>Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>Use personal protective equipment as required.</p>
Response	<p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>If eye irritation persists: Get medical advice/attention.</p> <p>In case of fire: Use CO₂, foam, extinguishing powder for extinction.</p>
Storage	<p>Store in a well-ventilated place. Keep cool.</p> <p>Store locked up.</p>
Disposal	<p>Dispose of contents/container in accordance with local/regional/national/international regulations.</p>

3.COMPOSITION / INFORMATION ON INGREDIENTS**Substance/Mixture: Mixture**

Chemical name	CAS No.	Composition(wt%)
Acrylate Resin	Secret	<25%
Inorganic Pigment	Secret	<40%
Talc	14807-96-6	<5%
Silica	7631-86-9	<5%
Photoinitiator	Secret	<5%
Amine Compound	Secret	<1%
Defoamer and others	Secret	<5%
Dipropylene Glycol Monomethyl Ether	34590-94-8	<30%

4.FIRST – AID MESURES

Inhalation	: Remove the victim from the contamination immediately to fresh air. If breathing is weak, irregular or has stopped, open his airway, loosen his collar and belt and administer artificial respiration. And refer for medical attention.
Skin contact	: Remove all contaminated clothing. Wash the affected area with plenty of water with mild soap. If irritation is continued, refer to medical attention.
Eye contact	: Gently rinse the affected eyes with clean water for at least 15 minutes lifting upper and lower eyelids occasionally. And refer to medical attention.
Ingestion	: Do not induce vomiting and refer to medical attention. Never give anything to someone who is unconscious.

5. FIRE – FIGHTING MEASURES

Extinguishing media	: Dry chemical powder, carbon dioxide, foam and dry sand.
Unsuitable extinguishing	: Water spray and water jet.
Exposure Hazards	: Burning may release oxides of carbon, nitrogen, sulphur and other toxic gases or vapors. Do not release chemically contaminated water into drains or surface waters. Dispose of contaminated waters and soil according to local regulations.
Special protective for fire-fighters	: Use full protective clothing and self-contained breathing apparatus.
Measures	: Promptly move transferable containers to another safety area. Check the speed and spread of fire. Extinguish the fire with suitable extinguisher from the windward side.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Evacuate personnel without wearing protective equipment. Put on protective equipment. Ensure
Environmental precautions	: Do not wash away into sewer, watercourse or river
Methods and materials for containment and cleaning up	: For small spill, absorb spills with inert materials (e.g. dry sand or earth), then place in a chemical waste containers. For large spill, dike for later disposal, cover spills with foam, then place in a chemical waste container using non-sparking tools.

7. HANDLING AND STORAGE

Handling	: Take measures of as described in chapter "8. EXPOSURE CONTROLS / PERSONAL PROTECTION" and wear an appropriate protective equipment. Should be established the adequate local exhauster in the indoor working area.
Storage	: Keep containers tightly closed and store in a cool, dark, well-ventilated location. Store below 20°C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure control	: Use this product only in a totally enclosed systems or local exhaust ventilation. Make available in the work area with emergency shower and eyes washer.
Control parameters	: Dipropylene Glycol Monomethyl Ether PC-TWA 600mg/m ³ ; PC-STEL 900mg/m ³ (skin) : Talc PC-TWA total dust 3mg/m ³ ; respirable dust 1mg/m ³ : Silica PC-TWA total dust 0.5mg/m ³ ; respirable dust 0.2mg/m ³
Engineering measure	: Do not use in area without adequate ventilation and local exhaust ventilation.
Personal protection equipment	Respiratory protection: Industrial canister gas masks. Eye protection: Safety goggles or face shield. Hand, skin and body protection: Chemical-resistant gloves, impervious boots and apron or full-body suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: White Paste	Odor	: Mild odor
pH	: No Data	Freezing point	: -
Boiling point	: 190°C (760mmHg)	Flash point	: 73°C(SETA)
Explosion properties	: 1.1-14.0	Vapor pressure (kPa)	: 0.28 (20°C)
Vapor density	: 6.12(Air=1)	Specific gravity	: 1.7±0.1
Solubility in water	: ≤28%	Octanol/water partition coefficient	: -
Auto-ignition temperature	: -	Decomposition temperature	: -

10. STABILITY AND REACTIVITY

Stability	: Stable for normal storage and handling.
Reactivity	: Not reactive with water.
Conditions to avoid	: Heat and sunlight.
Materials to avoid	: Strong acids, strong bases, peroxides and strong oxidizing agents.
Hazardous decomposition products	: Burning may release oxides of carbon, nitrogen, sulphur and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	: Classification not possible
Skin corrosion/irritation	: Classification not possible
Serious eye danger/eye irritation	: Causes serious eye irritation
Respiratory or skin sensitization	: Classification not possible
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Suspected of damaging fertility or the unborn child
Specific target organ systemic toxicity(Single exposure)	: Classification not possible
Specific target organ systemic toxicity(Repeated exposure)	: Classification not possible
Aspiration hazard	: Classification not possible

12. ECOLOGICAL INFORMATION

Eco-toxicity	: No relevant information found
Persistence and degradability	: No relevant information found
Potentially bioaccumulation	: No relevant information found
Bioconcentration or bioaccumulation	: No relevant information found
Other harmful effects	: No relevant information found

13. DISPOSAL CONSIDERATIONS

appropriate methods of disposal	: Dispose of contents /container in accordance with local / regional / national / international regulations.
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14. TRANSPORT INFORMATION

UN Number	: No
Proper shipping name	: No
Hazard class	: Not applicable
Packing group	: No
Marine pollutant	: -
Any especial precaution on the transport or conveyance	: Make sure container is no damage and no leakage before transport. Keep container upright and properly tighten not to fall down.

15. REGULATORY INFORMATION

Regulatory information with regard to this preparation in your country or region should be examined by your own responsibility

16. OTHER INFORMATION

This Product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with any legal regulation. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties. It may not be valid for this material, if used in combination with any other materials.

Material Safety Data Sheet

1.CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical product name	: Hardener
Identity (Trade Name As Used On Label)	: CA-40 LEW7S
Name of manufacturer	: TAIYO INK (SUZHOU) CO.,LTD.
Address	: No.26 Taishan Road, Suzhou New District, Suzhou City Jiangsu Province,P.R.China
Phone number	: 0512-66655550
Emergency Phone Number	: 4008-851-060
MSDS Number	: MSC-033105-A-00
Date Prepared	: March 2nd, 2015
For other information	: -

2.HAZARDS IDENTIFICATION

Physical hazards	
Flammable liquids	Classification not possible
Health hazards	
Acute toxicity oral	Classification not possible
Acute toxicity dermal	Category 5
Acute toxicity inhalation;gas	Classification not possible
Acute toxicity inhalation;vapor	Classification not possible
Acute toxicity inhalation;dust	Classification not possible
Acute toxicity inhalation;mist	Classification not possible
Skin corrosion/irritation	Category 3
Eye damage/irritation	Category 2A
Respiratory sensitization	Classification not possible
Skin sensitization	Category 1
Germ cell mutagenicity	Classification not possible
Carcinogenicity	Classification not possible
Reproductive toxicity	Classification not possible
Effects on or via lactation	Classification not possible
Specific target organ systemic toxicity(Single exposure)	Classification not possible
Specific target organ systemic toxicity(Repeated exposure)	Classification not possible
Aspiration hazard	Classification not possible
Environmental hazards	
Hazardous to the aquatic environment Acute hazard	Classification not possible
Hazardous to the aquatic environment Chronic hazard	Classification not possible

Symbol

Warning

Hazard statement

May be harmful in contact with skin
 Causes mild skin irritation
 May cause an allergic skin reaction.
 Causes serious eye irritation.

Precautionary statement**Prevention**

Obtain special instructions before use.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash ... thoroughly after handling.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.

Response

IF ON SKIN: Wash with plenty of soap and water.
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Call a POISON CENTER or doctor/physician if you feel unwell.
 If skin irritation occurs: Get medical advice/attention.
 If skin irritation or rash occurs: Get medical advice/attention.
 If eye irritation persists: Get medical advice/attention.
 Wash contaminated clothing before reuse.

3.COMPOSITION / INFORMATION ON INGREDIENTS**Substance/Mixture: Mixture**

Chemical name	CAS No.	Composition(wt%)
Epoxy resin	Secret	<35%
Acrylate Resin	Secret	<70%

4.FIRST – AID MESURES

Inhalation	:Remove the victim from the contamination immediately to fresh air. If breathing is weak, irregular or has stopped, open his airway, loosen his collar and belt and administer artificial respiration. And refer for medical attention.
Skin contact	:Remove all contaminated clothing. Wash the affected area with plenty of water with mild soap. If irritation is continued, refer to medical attention.
Eye contact	:Gent;y rinse the affected eyes with clean water for at least 15 ,minutes lifting upper and lower eyelids occasionally. And refer to medical attention.
Ingestion	:Do not induce vomiting and refer to medical attention. Never give anything to someone who is unconscious.

5.FIRE – FIGHTING MEASURES

Extinguishing media	: Dry chemical powder, carbon dioxide, foam and dry sand.
Unsuitable extinguishing	: Water spray and water jet.
Exposure Hazards	: Burning may release oxides of carbon, nitrogen, sulphur and other toxic gases or vapors. Do not release chemically contaminated water into drains or surface waters. Dispose of contaminated waters and soil according to local regulations.
Special protective for fire-fighters	: Use full protective clothing and self-contained breathing apparatus.
Measures	: Promptly move transferable containers to another safety area. Check the speed and spread of fire. Extinguish the fire with suitable extinguisher from the windward side.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	: Evacuate personnel without wearing protective equipment. Put on protective equipment. Ensure
Environmental precautions	: Do not wash away into sewer, watercourse or river
Methods and materials for containment and cleaning up	: For small spill, absorb spills with inert materials(e.g. dry sand or earth), then place in a chemical waste containers. For large spill, dike for later disposal, cover spills with foam, then place in a chemical waste container using non-sparking tools.

7. HANDLING AND STORAGE

Handling	: Take measures of as described in chapter "8. EXPOSURE CONTROLS / PERSONAL PROTECTION" and wear an appropriate protective equipment. Should be established the adequate local exhauster in the indoor working area.
Storage	: Keep containers tightly closed and store in a cool, dark, well-ventilated location. Store below 20C.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure control	: Use this product only in a totally enclosed systems or local exhaust ventilation. Make available in the work area with emergency shower and eyes washer.
Control parameters	-
Engineering measure	: Do not use in area without adequate ventilation and local exhaust ventilation.
Personal protection equipment	Respiratory protection : Industrial canister gas masks. Eye protection : Safety goggles or face shield. Hand, skin and body protection : Chemical-resistant gloves, impervious boots and apron or full-body suit.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: Transparent liquid	Odor	: Mild odor
pH	: No Data	Freezing point	: -
Boiling point	: -	Flash point	: 103°C (SETA)
Explosion properties	: -	Vapor pressure (kPa)	: -
Vapor density	: -	Specific gravity	: 1.3±0.1
Solubility in water	: -	Octanol/water partition coefficient	: -
Auto-ignition temperature	: -	Decomposition temperature	: -

10. STABILITY AND REACTIVITY

Stability	: Stable for normal storage and handling.
Reactivity	: Not reactive with water.
Conditions to avoid	: Heat and sunlight.
Materials to avoid	: Strong acids, strong bases, peroxides and strong oxidizing agents.
Hazardous decomposition products	: Burning may release oxides of carbon, nitrogen, sulphur and other toxic gases or vapors.

11. TOXICOLOGICAL INFORMATION

Acute toxicity	: May be harmful in contact with skin
Skin corrosion/irritation	: Causes mild skin irritation
Serious eye danger/eye irritation	: Causes serious eye irritation
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Classification not possible
Carcinogenicity	: Classification not possible
Reproductive toxicity	: Classification not possible
Specific target organ systemic	: Classification not possible
Specific target organ systemic toxicity(Repeated exposure)	: Classification not possible
Aspiration hazard	: Classification not possible

12. ECOLOGICAL INFORMATION

Eco-toxicity	: No relevant information found
Persistence and degradability	: No relevant information found
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Other harmful effects	: No relevant information found

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appropriate methods of disposal	: Dispose of contents /container in accordance with local / regional / national / international regulations.
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14. TRANSPORT INFORMATION

UN Number	: No
Proper shipping name	: No
Hazard class	: Not applicable
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Any especial precaution on the transport or conveyance	: Make sure container is no damage and no leakage before transport. Keep container upright and properly tighten not to fall down.

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