

Safety Data Sheet

Product Name : ENPI 203 Photoresist

Review date : 2015/2/9

GHS_EN_03

1. Manufacturer/ Subsidiary

- 1.1 **Product Name** : ENPI 203 Photoresist
 1.2 **Product Code** : QN03
 1.3 **Other Name** : No data available.
 1.4 **Recommended use and restriction on use** : Photo resist for Semi-conductor, FPD, LED industry.
 1.5 **Supplier name** : Everlight Chemical Industrial Corporation
Address : 5~6F., No.77, Sec.2, DunHua S. Rd., Taipei 106, Taiwan
Tel : 886-2-27066006 **Fax** : 886-2-27081254
 1.6 **Emergency Tel** : 886-3-4837682、0800-055119 (CAER) **Fax** : 886-3-4837683

2. Hazard(s) identification

- 2.1 **Classification** :
 Flammable liquids Category3
 Serious eye damage/eye irritation Category2B
 Skin sensitization Category1
 Carcinogenicity Category1
 Reproductive toxicity Category1A
 Specific target organ toxicity-single exposure Category2
 Specific target organ toxicity-Repeated exposure Category1

2.2 **Label element Symbol** :



2.3 **Signal word** :

Danger

2.4 **Hazard statement** :

H226 Flammable liquid and vapour.
 H317 May cause an allergic skin reaction.
 H320 Causes eye irritation.
 H350 May cause cancer.
 H360 May damage fertility or the unborn child .
 H371 May cause damage to organs .
 H372 Causes damage to organs .

2.5 **Precautionary statements** :

Read label before use.
 Obtain special instructions before use.
 Do not handle until all safety precautions have been read and understood.
 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
 Keep container tightly closed.
 Ground/bond container and receiving equipment.
 Use explosion-proof electrical/ventilating/lighting...equipment.
 Use only non-sparking tools.
 Take precautionary measures against static discharge.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 Avoid breathing dust/fume/gas/mist/vapours/spray.
 Wash hand thoroughly after handling.
 Do not eat, drink or smoke when using this product.
 Contaminated work clothing should not be allowed out of the workplace.
 Wear protective gloves/protective clothing/eye protection/face protection.
 Use personal protective equipment as required.

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3. Composition / Information on Ingredients

3.1 Chemical Nature : Ethyl Lactate

3.2 Hazardous ingredients

Component	CAS Number	% by weight
Propylene Glycol Monomethyl Ether Acetate	108-65-6	10~30
Ethyl Lactate	97-64-3	20~50
Photoactive compound	68002-20-0	2~10
Novolak resin	9016-83-5	10~35

4. First Aid Measures

4.1 The First-aid Information :

4.1.1 Inhalation:

Remove victim to fresh air immediately. Get medical aid immediately.

4.1.2 Skin contact:

Remove contaminated clothing and shoes. Wash with soap and water.

4.1.3 Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower lids. Get medical aid immediately.

4.1.4 Ingestion:

Wash out mouth with water and then drink plenty of water.

4.2 The Most Important Symptoms and Hazardous Effects :

The fume may cause to have a headache, fatigue, faint, dimmed eyesight, disgusting, repress central nervous system.

4.3 Protection of First-aids :

Dressed in the C class protection equip; Use a appropriate air purifying respirator.

4.4 Notes to a Physician : Treat and support by symptoms.

5. Fire-fighting measures

5.1 General Information :

As in any fire, wear a self-contained breathing apparatus in pressure-demand,MSHA/NIOSH (approved or equivalent), and full protective gear. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

5.2 Extinguishing Media :

Dry chemical extinguisher, CO₂, Foam.

5.3 Specific Hazards when Fire-fight :

FLAMMABLE / have a possibility of explosion in case of fire.

5.4 Specific Fire-fighting Procedure :

Water spray can be used to cool and protect containers and exposed materials.

5.5 Specific Protection of Firefighters :

Wear fire/flame resistant/retardant clothing.

5.6 Further information :

Contaminated extinguishing water must be disposed of in accordance with local regulations.



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6. Accidental release measures

6.1 Personal Precautions :

Wear protective goggle, Mask and gloves.

6.2 Environmental Precautions :

1.Ventilate area.2.Extinguish or remove all ignition sources.

6.3 Methods for Cleaning up :

Soak up spill with absorbent material which does not react with spilled chemical. Put materials in suitable, covered, labeled containers.

6.4 Further information :

No data available.

7. Handling and storage

7.1 Handling :

1.Use smallest possible amounts in designated areas with ventilation. 2.Keep material away from sparks , flames, and other ignition sources.3.Prevent release of vapors and mists into workplace air ventilation.

7.2 Storage :

Storage condition : 0~10 °C

The substances in our product are very stable, please put it in a ventilated, cool, dry place. Keep container closed when not in use. Store away from food and drink.

8. Exposure controls and personal protection

8.1 Engineering Control Measures :

When the smog appears please use the suitable well-ventilated equipment.

8.2 Exposure Control Parameters :

No data available.

8.3 Personal Protective Equipment :

8.3.1 Respiratory Protection :

For conditions of use where exposure to the substance is apparent and engineering controls are not feasible, consult an industrial hygienist. For emergencies, or instances where the exposure levels are not known, use a appropriate air purifying respirator.

8.3.2 Hand Protection :

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

8.3.3 Eye Protection :

Use chemical safety goggles and/or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

8.3.4 Skin and Body Protection :

Chemical-resistant clothes(Caustic proof coveralls).

8.4 Hygiene Measures :

No smoking and no eating in works.

9. Physical and chemical properties

Physical Form : Liquid

Color : Brown

pH : No data available.

Odor : Ester odor



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Decomposition Temp : No data available.

Auto-ignition Temp : No data available.

Vapor Pressure : No data available.

Specific gravity : 1.053±0.005 kg/L

Partition coefficient(log Kow) : No data available.

Solubility : No data available.

Boiling Point/ Boiling Range : 154°C (Ethyl lactate)

Melting Point : No data available.

Flash Point : 46°C (Ethyl lactate)

Test Method : Close cup

Explosion Limit : No data available.

Vapor Density : No data available.

10. Stability and reactivity

10.1 Stability :

YES

10.2 Possible Hazardous Reactions :

Will not occur.

10.3 Conditions to Avoid :

High Temperature 、 Other sources of Ignition.

10.4 Material to Avoid :

Oxidizing Agent.

10.5 Hazardous Decomposition Products :

Carbon Monoxide 、 Carbon Dioxide Conditions Fumes of Aromatic and Aliphatic Hydrocarbons.

11. Toxicological information

11.1 Route of exposure :

Eye 、 Skin 、 Ingestion 、 Inhalation

11.2 Symptoms :

No data available.

11.3 Acute toxicity :

LD50(oral 、 rat) : >5000 mg/kg

LD50(skin 、 rat) : No data available.

LC50(Inhalation 、 rat) : No data available.

11.4 Chronic Toxicity :

No data available.

12. Ecological information

12.1 Ecotoxicology :

LC50(fish) 96hr : No data available.

EC50(crustacean) 48hr : No data available.

ErC50(Algae) 72hr or 96hr : No data available.

12.2 Persistence and degradability : No data available.

12.3 Bioaccumulative potential : No data available.

12.4 Mobility in soil : No data available.

12.5 Other adverse effects : No data available.

13. Disposal considerations

13.1 Disposal Methods :

Review federal, provincial and local government requirements Perrier to disposal.

14. Transport information



臺灣永光化學工業股份有限公司
EVERLIGHT CHEMICAL INDUSTRIAL CORPORATION

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UN. No : 1866
UN Proper Shipping Name : Resin solution, flammable
Transport hazard class : 3
Packaging group : III
Marine pollutant(YES / NO) : NO

Special Transport Precaution :

No smoking. Please confirm whether the container before shipping damage, corrosion, leakage and so on.
Please note not loaded upside down, drop, damage, etc. And to prevent the collapse of the goods.

15. Regulatory informations

15.1 U.S. REGULATIONS :

No data available.

15.2 EUROPEAN REGULATIONS :

No data available.

16. Other information

16.1 Prepared by :

Everlight Chemical Industrial Corporation Electric Chemicals Division 12, Industrial Third Road, Kuanyin Industrial Park Taoyuan Hsien, Taiwan, R.O.C.

16.2 Preparer's name :

Head of EC B.U, Andrew Liu Tel:886-3-4838088 ext. 820

16.3 Date SDS Prepared :

2015/2/9

16.4 Remark :

The data given here is based on current knowledge and experience. If you have any questions, please do not hesitate to contact with me.