

## 物質安全資料表(MSDS)

### 1. Identification of Substance /Preparation and Company

- 1.1 Product Name : Photocatalyst-Silver Ion composite agent PL-205WG
- 1.2 Another Name : -
- 1.3 Recommend Usage : -
- 1.4 Information of Manufacturer or Supplier :  
GRACESS INTERNATIONAL CO., LTD. /  
29F-3, No. 86, Sec. 1, Beixin Rd., Xindian Dist., New Taipei City 231003, Taiwan /+886-2-2673-3998
- 1.5 Emergency Phone/Fax: +886-2-2673-3998 /+886-2-2673-3995

### 2. Hazards Identification data

- 2.1 Hazard classification: -
- 2.2 Label: -  
Symbol: -  
Caution: -  
Hazard alarm: -  
Hazard preventive measure: -
- 2.3 Other hazard: no information

### 3. Composition/ Information of Ingredients

Mixtures: -

Materials name	CAS Number	%
Nano TiO2	13463-67-7	2.16~2.18%
Silver	7440-22-4	0.005~0.007%
Water	7732-18-5	96~98%

### 4. First Aid measure

- 4.1 First aid measure:  
Inhalation: If any symptoms, move to fresh air place.  
Skin: Remove contaminated clothes and flush skin with plenty of soap and water.  
Eyes: Flush eyes with plenty of water at least 15 minutes and get medical aid at once.  
Ingestion: Rinse the mouth and drink a lot of water and get medical aid.
- 4.2 The most harmful effect: Mildly irritating to eyes.
- 4.3 Protection of first-aid person: No information.
- 4.4 Suggestion to doctors: No information.

### 5. Fire Fighting Measure

- 5.1 Suitable extinguishing media: Water, dry chemical powder, foam CO2 recommended.
- 5.2 Special hazards from fire fight: Pyrolysis may produce toxic gases.

- 5.3 Special fire measure: Operate at windward side and prevent dangerous steam and toxic decomposition.
- 5.4 Special protect equipment of fire fighter: As in any fire, wear self-contained breathing apparatus and full protective gear

## 6. Accidental release measures

- 6.1 Personal precaution: Wear safety goggles and protective gloves.
- 6.2 Environmental precautions: Prevent the leakage get into any kinds of sewer system.
- 6.3 Cleaning method: 1. Using general absorbing materials. 2.Flushing with plenty of water.

## 7. Handling and Storage

- 7.1 Handling: Placed in a well-ventilated place.
- 7.2 Storage:
1. Keep container sealed.
  2. Prevent the container from bumping
  3. Storage with well adequate ventilation and cool dry places.
  4. Keep the path and exit in clear.
  - 5.Do not return the polluted liquid to the container.
  6. Clear labeling.

## 8. Exposure Controls

- 8.1 Engineering controls: Supplying plenty of fresh air.
- 8.2 Control's parameter:  
PC-TWA/PC-STEL/PC-MAC: No information.
- 8.3 Personal protective equipment:  
Respirator: Wear activated carbon face masks or self-contained breathing apparatus.  
Hand protection: Safety rubber or plastic gloves.  
Eye protection: Safety goggle is recommended.  
Skin and body protection: Wear working suits or aprons.
- 8.4 Health measure: 1. Clean the suit after use and before discard. 2.Wash hands thoroughly after work. 3.Keep the working place clean.

## 9. Physical and Chemical Properties

- |                              |                            |                        |                   |
|------------------------------|----------------------------|------------------------|-------------------|
| • Appearance:                | Liquid                     | • Solid contents (%):  | 2.17~2.19%        |
| • Color:                     | Transparent to pale yellow | • pH value:            | 9~11              |
| • Odor:                      | Mild odor                  | • Melt point:          | -                 |
| • Odor Threshold Value:      | -                          | • Boiling point/range: | -                 |
| • Inflammability:            | -                          | • Explosion limit:     | -                 |
| • Decomposition temperature: | -                          | • Vapor density:       | -                 |
| • Auto-ignition temperature: | -                          | • Solubility:          | Soluble in water. |

- Vapor pressure: -
- Density: -
- Log KOW: -
- Chemical reactivity: -
- Evaporation rate: -
- Flash point: -

## 10. Stability and Reactivity

- 10.1 Stability: Stable.
- 10.2 Possible harmful reaction under special condition: -
- 10.3 Avoiding state: -
- 10.4 Avoiding substance: Alkali
- 10.5 Harmful decomposed substance: -

## 11. Toxicological Information

- 11.1 Exposure route: No information.
- 11.2 Symptoms: No information.
- 11.3 Acute toxicology: LD50 (rat ingestion) > 2000mg/kg
- 11.4 Chronic toxicity/ long-term toxicity: -

## 12. Ecological Information

- 12.1 Ecotoxicity: -
- 12.2 Persistence and degradability: -
- 12.3 Bioaccumulative potential: -
- 12.4 Mobility in soil: -
- 12.5 Other adverse effects: -
- 12.6 Remark: -

## 13. Disposal Considerations

- 13.1 Waste treatment method:  
Waste material must be recycled or disposed in accordance with the local regulations.
- 13.2 Hazard disposal: No information.

## 14. Transport Information

- 14.1 UN-number: Non-dangerous goods
- 14.2 UN shipping name: Non-dangerous goods
- 14.3 DG hazard class: Non-dangerous goods
- 14.4 Marine pollutant: -
- 14.5 Special transport way and precaution: Drums are transported by truck and must with clear mark. If transferring by tank truck, the tank truck must be marked.

## 15. Regulatory Information

Suitable regulations:

1. Labor safety and sanitation rules
2. Dangerous and harmful substance labeling and general rules
3. Traffic safety rule
4. Industrial waste storage and removal methods and facilities standards.

## 16. Other Information

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### LIMITED WARRANTY INFORMATION – PLEASE READ BEFORE ANY APPLICATION:

- The data presented in this brochure are in accordance with the present state of our knowledge but do not absolve the user from carefully checking all supplies immediately on receipt.
- We reserve the right to alter product constants within the scope of technical progress or new developments.
- The recommendations made in this brochure should be checked by preliminary trials because of conditions during processing over which we have no control, especially where other companies' raw materials are also being used.
- The information provided by us does not absolve the user from the obligation of investigating the possibility of infringement of third parties' rights or patents and, if necessary, clarifying the position.
- Recommendations for use do not constitute a warranty, either express or implied, of the fitness or suitability of the product for a particular purpose.
- We disclaim any responsibility for any dispute regarding product quality between agent and end user.
- Our sole warranty is that our products will meet the sales specifications in effect at the time of shipment.