Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

50084 Pearl Luster XIRALLIC® Micro Silver

1. Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product Identifier

Product Name: Pearl Luster XIRALLIC® Micro Silver
Article No.: 50084

1.2. Relevant identified Uses of the Substance or Mixture and Uses advised against

Identified uses: Coloring agent

Uses advised against:

1.3. Details of the Supplier of the Safety Data Sheet

Company: Kremer Pigmente GmbH & Co. KG
Address: Hauptstr. 41-47, 88317 Aichstetten, Germany
Tel./Fax.: Tel +49 7565 914480, Fax +49 7565 1606
Internet: www.kremer-pigmente.de
EMail: info@kremer-pigmente.de

1.4. Emergency No.

Emergency No.: +49 7565 914480 (Mon-Fri 8:00 - 17:00)

2. Hazards Identification

2.1. Classification of the Substance or Mixture

Classification according to EC Regulation 1272/2008
This product is not classified as hazardous according to the CLP/GHS Directive.

Classification according to EC Regulation No. 67/548 or No. 1999/45
The material is not subject to classification according to EC lists.

Safety Phrases:
S22: Do not breathe dust.

Possible Environmental Effects:

2.2. Label Elements

Classification according to EC Regulation 1272/2008
This product does not require classification and labelling as hazardous according to CLP/GHS.

Hazard designation: Not applicable.

Signal word:

Hazard designation:

Safety designation:
P260a Do not breathe dust.

Hazardous components for labelling:

Other Hazards
2.3. No special hazards known.

3. Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization: Aluminium oxide laminated with titanium dioxide, tin oxide, zirconic oxide and additives.

Hazardous Ingredients:

- Tin oxide (Xi; R37) 1 - 10% CAS-Nr: 18282-10-5 EINECS-Nr: 242-159-0 EC-Nr:

Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information: Take affected persons out into the fresh air.

After inhalation: Supply fresh air. Consult physician if symptoms persist.

After skin contact: Wash off with water.

After eye contact: Rinse eyes with water.

After ingestion: Drink plenty of water. Get medical help in case of discomfort.

4.2. Most important Symptoms and Effects, both Acute and Delayed

Symptoms: No further information available.

Effects: No further information available.

4.3. Indication of any Immediate Medical Attention and special Treatment needed

Treatment: No information available.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media: Use extinguishing media for surrounding fire.

Unsuitable extinguishing media: None known.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:
In case of fire: hazardous vapors may be released.

5.3. Advice for Firefighters

Protective equipment:
Wear self-contained respiratory protective device.

Further information:
Collect contaminated extinguishing water and debris separately; avoid contamination of sewage system.

6. Accidental Release Measures
6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions:
Do not inhale dust.
Evacuate the danger area, observe emergency procedures, consult an expert.

6.2. Environmental Precautions

Environmental precautions:
Prevent contamination of soil, drains and surface waters.

6.3. Methods and Material for Containment and Cleaning Up

Methods and material:
Take up mechanically and collect in suitable container for disposal. Rinse spill area. Avoid dust formation.

6.4. Reference to other Sections

Dispose of contaminated material according to Section 13.

7. Handling and Storage
7.1. Precautions for Safe Handling

Instructions on safe handling:
Avoid formation of dust. Do not inhale dust.

Hygienic measures:
No further measures, see Section 8.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions:
Store in tightly sealed containers in a dry room.

Requirements for storage areas and containers:
No special measures necessary.

Information on fire and explosion protection:
No special measures necessary.

Storage class (VCI):
10-13

Further Information:

7.3. Specific End Use(s)

Further information:
8. Exposure Controls/Personal Protection

8.1. Parameters to be Controlled

Parameters to be controlled (DE):

- TRGS 900
- TWA-Value: 3 mg/m³ airborne fraction (general dust limit)
- TWA: 10 mg/m³ general dust limit inhalable fraction.
- Peak limit category II (2)
- Aluminium oxide (CAS 1344-28-1): AGW (TRGS 900): 3 mg/m³ (airborne dust), 10 ml/m³ (inhalable dust); 2(II)
- Tin dioxide (CAS 18282-10-5): AGW (TRGS 900): 2 mg/m³ (inhalable fraction; as Sn)

Parameters to be controlled (EC):

- Tin dioxide, CAS 18282-10-5; ECTLV: 2 mg/m³ (Time weighted average; as Sn)

Derived No-Effect Level (DNEL):

- Predicted No-Effect Concentration (PNEC):

Additional Information:

8.2. Exposure Controls

Technical protective measures:

Technical protective measures have priority to personal protective measures.

General protective measures:

Wash hands before breaks and after work.

Respiratory protection:

Dust mask recommended when very dusty (with particle filter P1).

Hand protection:

Not required

Protective glove material:

Eye protection:

Safety glasses (EN 166)

Body protection:

Environmental precautions:

No special measures required.

9. Physical and Chemical Properties

9.1. Information on Basic Physical and Chemical Properties

Form: powder
Color: white
<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
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<tbody>
<tr>
<td>Odor</td>
<td>odorless</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No information available</td>
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<tr>
<td>pH-Value</td>
<td>not available</td>
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<tr>
<td>Melting temperature</td>
<td>not available</td>
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<tr>
<td>Boiling temperature</td>
<td>not available</td>
</tr>
<tr>
<td>Flash point</td>
<td>not applicable</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>No information available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>not available</td>
</tr>
<tr>
<td>Upper explosion limit</td>
<td>no information available</td>
</tr>
<tr>
<td>Lower explosion limit</td>
<td>no information available</td>
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<tr>
<td>Vapor pressure</td>
<td>not applicable</td>
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<tr>
<td>Vapor density</td>
<td>No information available</td>
</tr>
<tr>
<td>Density</td>
<td>not available</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>practically insoluble</td>
</tr>
<tr>
<td>Coefficient of variation (n-Octanol/Water)</td>
<td>no information available</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>No information available</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Viscosity, dynamic</td>
<td>not available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Product is not explosive</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No information available</td>
</tr>
<tr>
<td>Bulk density</td>
<td>not determined</td>
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</table>
9.2. Further Information

Solubility in solvents:

Viscosity, kinematic

Burning class:

Solvent content:

Solid content:

Particle size: < 20 µm

Other information:

10. Stability and Reactivity

10.1. Reactivity

Stable if used according to specifications.

10.2. Chemical Stability

Stable at room temperature.

10.3. Possibility of Hazardous Reactions

No information available.

10.4. Conditions to Avoid

Conditions to avoid:

No further information available.

Thermal decomposition:

No data available.

10.5. Incompatible Materials

No information available.

10.6. Hazardous Decomposition Products

None known.

10.7. Further Information

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD50, oral:

No information available.

LD50, dermal:

No information available.

LC50, inhalation:

No information available.

Primary effects

Irritant effect on skin:

No information available

Irritant effect on eyes:

No information available.
Inhalation: No information available.

Ingestion: No information available

Sensitization: No information available.

Mutagenicity: No data available.

Reproductive toxicity: No data available.

Cancerogenity: No data available.

Teratogenicity: No information available.

Specific target organ toxicity (STOT): Repeated exposure: the substance or mixture is not classified as specific target organ toxicant.
Single exposure: the substance or mixture is not classified as specific target organ toxicant.

Additional toxicological information: No quantitative toxicological data available for this product.
Avoid inhalation of dust. Even inert dusts can impair the function of the respiratory system.
Handle in accordance with good industrial hygiene and safety practice.

12. Ecological Information

12.1. Aquatic Toxicity

Fish toxicity: No data available.

Daphnia toxicity: No information available.

Bacteria toxicity: no information available

Algae toxicity: No information available.

12.2. Persistency and Degradability

No information available.

12.3. Bioaccumulation

No information available.

12.4. Mobility

No information available.

12.5. Results of PBT- und vPvP Assessment

PBT/vPvB assessment not available as chemical safety
12. 6. Other Adverse Effects

   Water hazard class:

       Not hazardous.

   Behaviour in sewage systems:
   Further ecological effects:

       When used properly, no ecological problems expected.

13. Disposal Considerations

13. 1. Waste Treatment Methods

   Product:

       Dispose of product residues according to the waste disposal
       guidelines 2008/98/EC as well as according to official national and
       local regulations.

       Do not mix with other waste.

   European Waste Code (EWC):

   Uncleaned packaging:

       Packaging may be disposed of in the same manner as the
       product.

   Waste Code No.: 

14. Transport Information

14. 1. UN Number

   ADR, IMDG, IATA

14. 2. UN Proper Shipping Name

   ADR/RID:

       No hazardous goods according to ADR (land transportation).

   IMDG/IATA:

       No hazardous goods according to IMDG.

14. 3. Transport Hazard Classes

   ADR Class:

       not applicable

   Hazard no.:

   Classification code:

   Tunnel no.:

   IMDG Class (sea):

   Hazard no.:

   EmS No.:

   IATA Class:

       not applicable
14.4. Packaging Group

**ADR/RID:**

*not applicable*

**IMDG:**

**IATA:**

14.5. Environmental Hazards

None

14.6. Special Precautions for User

*Not classified as a dangerous good under transport regulations.*

14.7. Transportation in Bulk according to Annex II of MARPOL 73/78 and IBC-Code

*not applicable*

14.8. Further Information

15. Regulatory Information

15.1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

**Water hazard class:**

0, not hazardous

**Local regulations on chemical accidents:**

EC-Regulation 96/82 does not apply (2003).

**Employment restrictions:**

**Restriction and prohibition of application:**

**Technical instructions on air quality:**

15.2. Chemical Safety Assessment

*A Chemical Safety Assessment has not been carried out for this product.*

15.3. Further Information

16. Other Information

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations. This information contained herein is based on the present state of knowledge and is intended to describe our product from the point of view of safety requirements. It should be therefore not be construed as guaranteeing specific properties.