

SAFETY DATA SHEET

3503 LEMON YELLOW SUNSHINE ONGLAZE COLOUR

1. Identification of substance/preparation and of the company undertaking

Trade Name: Lemon Yellow Sunshine Onglaze colour

Use of the substance/Preparation Ceramic coating suited for firing, for glass and ceramics

2. Composition /information on ingredients

| Chemical nature | Product contains: Glass/frit Inorganic Pigment |
|-----------------------------------|---|
| Lead oxide in glasses/pigments | Concentration: 20% - 30% |
| CAS-No: 1317-36-8 | EC-No: 215-267-0 |
| Symbol(s): T | R-phrase(s) R61, R62, R20/22, R33 |
| Pb-Sb Yellow Pyrochlore | Concentration: 20% - 30% |
| CAS-No: 8012-00-8 | EC-No: 232-382-1 |
| Symbol(s): T, N | R-phrase(s): R61, R62, R20/22, R33, R50/53 |
| Cadmium oxide in glasses/pigments | Concentration: 1% - 3% |
| CAS-No: 1306-19-0 | EC-No: 215-146-2 |
| Symbol(s): Xn | R-phrase(s): R20/21/22 |
| Zirconium dioxide | Concentration 1% - 3% |
| CAS-No: 1314-23-4 | EC-No: 215-227-2 |

3. Hazards Identification

May cause harm to unborn child.

Also harmful by inhalation, in contract with skin and if swallowed.

Danger of cumulative effects.

Toxic to aquatic organism, may cause long-term adverse effects in the aquatic environment.

Possible risk of impaired fertility

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4. First Aid Measures

| General advice | Remove contaminated or saturated clothing. Bring affected person out of danger area. Place person on side in stable position if unconscious. Employ mouth-to-mouth resuscitation if breathing ceases. |
|-----------------------|---|
| Inhalation | Take affected persons out into the fresh air. In case of discomfort consult doctor immediately |
| Skin contact | Wash off immediately with soap and plenty of water. Remove contaminated or saturated clothing. |
| Eye contact | With eye held open, thoroughly rinse immediately with plenty of water for at last 10 minutes |
| Ingestion | Make affected person vomit but only if he is fully conscious. Have patient rinse out mouth with water. Have patient drink plenty of water in small sips. Call a physician immediately |
| Notes to Physician | No own experience available. |

5. Fire Fighting Hazards

| Suitable extinguishing media | The product itself does not burn. |
|---|---|
| Extinguishing media which must not be used for safety reasons | None known |
| Specific hazards during fire fighting | No information available |
| Special protective equipment for fire-fighters | Standard procedure for chemical fires. |
| Further information | Water used to extinguish fire should not enter drainage systems, soil, or stretches of water. Ensure there are sufficient retaining facilities fir water used to extinguish fire. Contaminated fire-extinguishing water must be disposed of in accordance with the regulations issued by the appropriate local authorities. |

6. Accidental Release Measure

| Personal precautions | Evacuate personnel to safe areas. Ensure adequate ventilation. Wear personal protective equipment; see section 8 Avoid dust formation. |
|---------------------------|--|
| Environmental precautions | Prevent penetration into soil, stretches of water and drainage systems. |
| Methods for cleaning up | Pick up mechanically and collect in a suitable container, Avoid formation of dust. |
| Additional advice | Dispose of contaminated material as waste in accordance with section 13. |



7. Handling & Storage

| Safe handling advice | Avoid production of dust. Do not breathe dust. The product should only be handled by trained personnel. Store substances and preparations classified as T or T+ under lock and key or only allow access to technical experts or persons under their authority. The product contains substances, which may be dangerous to reproduction, category 3. Comply with employment limitations for youths, pregnant women and nursing mothers. |
|---|---|
| Advice on protection against fire explosion | No data available |
| Requirements for storage areas and containers | Keep containers tightly closed in dry, cool and well-ventilated place. No special storage conditions required. |
| Further information | Product is water-pollutive. Observe the national and local regulations concerning handling and storage |
| Advice on common storage | Keep away from food, drink and animal feeding stuffs. Keep away from tobacco products. |
| German storage class | 6.1B (Classification by producer in accordance with VCI scheme) |

8. Exposure Control/Personal Protection

| Lead oxide in glasses/pigments | |
|--|--|
| CAS-No: 1317-36-8 | EC-No: 215-267-0 |
| Control parameters 0.10mg/m3 | Related to: as Pb: MAK |
| (total inhalable dust) | |
| Pb-Sb Yellow pyrochlore | |
| CAS-No: 8012-00-8 | EC-No: 232-382-1 |
| 0.10 mg/m3 | Related to: as Pb: MAK |
| (Total dust) | |
| Cadmium oxide in glasses/pigments | |
| CAS-No. 1306-19-0 | EC-No: 215-146-2 |
| 0,015 mg/m3 | Related to: as Cd: TRK |
| (Total dust) | |
| Zirconium dioxide | |
| CAS-No. 1314-23-4 | EC-No: 215-227-2 |
| 2,50 mg/m3 | Related to: as Zr: MAK |
| (Total dust) | |
| | |
| Engineering measures | If possible, use material transfer/filling, metering and blending plants that are closed. Eventual aspiration in case of dusts, Technical protection measures have always priority over personal protection equipment. |
| Personal protective equipment | |
| Respiratory protection | If workplace exposure limit is exceeded apply, |
| | Respirator with P3 particle filter. |
| Hand protection | Wear protective gloves made of the following |
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| | materials: nitrile rubber |
|---------------------------------|---|
| Eye protection | Wear basket-shaped glasses or safety goggles with side shields. |
| Skin and body protection | Safety shoes |
| Hygiene measures | When using do not smoke. When using do not eat or drink. Wash hands before breaks and immediately after handling the product. Do not breathe dust or spray mist. Avoid contact with skin, eyes and clothing. Keep working clothes separate. |
| Protective measures | Handle in accordance with good industrial hygiene and safety practice. |
| Environmental exposure controls | No data available |

9. Physical & Chemical Properties

| Form | Powder |
|----------------|-----------|
| Colour | Yellow |
| Odour | Odourless |
| Physical state | Solid |

10. Stability & Reactivity

| Conditions to avoid | No Data available |
|----------------------------------|-------------------|
| Materials to avoid | No data available |
| Hazardous decomposition products | No data available |

11. Toxicological Information

| Acute toxicity | Harmful if swallowed Harmful by inhalation |
|--|---|
| Chronic toxicity/Subacute toxicity | Harmful in contact with skin Possible risk of impaired fertility. May cause harm to the unborn child. |
| Skin irritation | Powder can cause localised skin irritation in folds of the skin or under the tight clothing |
| Eye irritation | No data available |
| Sensitization | No data available |
| Acute oral toxicity Frits, chemicals (WGK 2) Pb-Sb Yellow Pyrochlore | LD50 rat > 2.000,00 mg/kg LD50 rat > 10.000,00 mg/kg |



12. Ecological Information

| Persistence and degradability Biodegradability | The methods for determining biodegradability are not applicable to inorganic substances. |
|--|--|
| Physico-chemical removability | No data available |
| Behaviour in environmental compartments Mobility | No data available |
| Ecotoxicity effects | Specific information for this product is not available. (If, applicable, information referring to individual components of the product is given below). |
| Toxicity to fish Frits, chemicals (WGK 2) Pb-Sb Yellow Pyrochlore | LC50 Fish: > 1.000,00mg/l/96h LC50 Fish: > 10.000,00mg/l/96h |
| Toxicity to daphnia Frits, chemicals (WGK 2) Pb-Sb Yellow Pyrochlore | EC50 Daphnia: > 100,00mg/l/48h EC50 Daphnia: > 10.000,00 mg/l/48h |
| Toxicity to algae Frits, chemicals (WGK 2) | IC50 algas: > 1.000,00 mg/l / 72h |
| Further information on ecology Further information | Do not allow entrance in sewerage water, soil or stretches of water. May cause long-term adverse effects in the aquatic environment. Toxic to aquatic organisms. |

13. Disposal Considerations

| Product | Dispose of as special waste in compliance with local and national regulations. Do not contaminate ponds, waterways or ditches with chemical or used container. In agreement with the waste code must be determined regional waste disposal authority or company. |
|---------------------|--|
| Uncleaned packaging | If there is product residue in the emptied container, follow directions for handling on the container's label. Dispose of as unused product. |

14. Transport Information

| Further information | Not classified as dangerous in the meaning of |
|---------------------|---|
| | transport regulations. |



15. Regulatory Information

| Labelling according to EEC Directive Statutory basis/list | 1999/45/EC | | |
|---|---|---|--|
| Hazard-defining component(s) Lead oxide in glasses/pigments Cadmium oxide in glasses/pigments | | | |
| Symbol(s): | T | Toxic | |
| | N | Dangerous to the environment | |
| R-phrase(s) | R20/21/22 | Also harmful by inhalation, in contact with skin and if swallowed. | |
| | R33 | Danger of cumulative effects. | |
| | R51/53 | Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. | |
| | R61 | May cause harm to unborn child | |
| | R62 | Possible risk of impaired fertility. | |
| S-phrase(s) | S22 | Do not breathe dust. | |
| | S35 | This material and its container must be disposed of in a safe way. | |
| | S36/37 | Wear suitable protective clothing and gloves. | |
| | S45 | In case of accident or if you fell unwell, seek medical advice immediately (show label where possible). | |
| | S53 | Avoid-exposure-obtain special instructions before use. | |
| | S61 | Avoid release to the environment. Refer to special instructions/safety data sheets. | |
| | | | |
| Water contaminating class (Germany) | WGK 3 – Highly water endangering. Update: VWVWS A4 | | |



| Ta Luft | Class Organic Carcinogenic Inorganic- dust-like Inorganic- gaseous | I 0.0% 0.0% 1.6% 0.0% | II 0.0% 0.0% 0.0% 0.0% | III 0.0% 0.0% 42.9% 0.0% | IV 0.0% |
|-------------------|---|-----------------------------------|------------------------------------|--------------------------------------|------------|
| | | | | | |
| Other regulations | The employment limitations under the regulations to the protection from hazardous materials of pregnant women and young mothers guideline and the protection of young persons act are to be observed. | | | | |

16. Other Information

| Risk phrase (R phrase) texts | |
|------------------------------------|---|
| Lead oxide in glasses/pigments | |
| R61 | May cause harm to the unborn child. |
| R62 | Possible risk of impaired fertility. |
| R20/22 | Also harmful by inhalation and if swallowed. |
| R33 | Danger of cumulative effects. |
| Pb-Sb Yellow Pyrochlore | |
| R61 R62 R20/22 | May cause harm to the unborn child. Possible risk of impaired fertility. Also harmful by inhalation and if swallowed. |
| R33 | Danger of cumulative effects. |
| R50/53 | Very toxic to aquatic organisms, may cause long- term adverse effects in the aquatic environment. |
| Cadmium oxide in glasses/ pigments | |
| R20/21/22 | Harmful by inhalation, in contact with skin and if swallowed. |