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

1.1. Product Identifier

*Product Name:* Lead Tin Yellow II  
*Article No.:* 10120

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

*Identified uses:* Pigment in artists’ colors.

*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 - info@kremer-pigmente.de  
*EMail:* kremer@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* 

- Reproductive toxicity, category 1A
- Acute toxicity (inhalation), hazard category 4
- Acute toxicity (oral), hazard category 4
- Specific target organ toxicity (repeated exposure), category 2
- Hazardous to the aquatic environment, acute category 1
- Hazardous to the aquatic environment, chronic category 1

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H302</td>
<td>Harmful if swallowed.</td>
</tr>
<tr>
<td>Cat.: 4</td>
<td></td>
</tr>
<tr>
<td>H332</td>
<td>Harmful if inhaled.</td>
</tr>
<tr>
<td>Cat.:</td>
<td></td>
</tr>
<tr>
<td>H360</td>
<td>May damage fertility or the unborn child.</td>
</tr>
<tr>
<td>Cat.:</td>
<td></td>
</tr>
<tr>
<td>H373</td>
<td>May cause damage to organs through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>Cat.: 2</td>
<td></td>
</tr>
<tr>
<td>H410</td>
<td>Very toxic to aquatic life with long lasting effects.</td>
</tr>
<tr>
<td>Cat.: 1</td>
<td></td>
</tr>
</tbody>
</table>

*Classification according to EC Regulation No. 67/548 or No. 1999/45* 

<table>
<thead>
<tr>
<th>No.</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Harmful (Xn)</td>
<td>R20</td>
</tr>
<tr>
<td>Harmful (Xn)</td>
<td>R22</td>
</tr>
<tr>
<td></td>
<td>R33</td>
</tr>
<tr>
<td>Hazardous to the environment (N)</td>
<td>R50</td>
</tr>
<tr>
<td>Hazardous to the</td>
<td></td>
</tr>
</tbody>
</table>
10120  Lead Tin Yellow II

Revised edition: 01.06.2012  Version: 1
Printed: 17.12.2013

环境 (N)  R51  May cause harm to the unborn child.
Repr. Cat. 3  R61  Possible risk of impaired fertility.

Safety Phrases:

Possible Environmental Effects:
See Section 12.

2.2. Label Elements

Classification according to EC Regulation 1272/2008

Hazard designation:

Signal word:  Danger

Hazard designation:
H302  Harmful if swallowed.
H332  Harmful if inhaled.
H360  May damage fertility or the unborn child.
H373  May cause damage to organs through prolonged or repeated exposure.
H410  Very toxic to aquatic life with long lasting effects.

Safety designation:
P260  Do not breathe dust/fume/gas/mist/vapours/spray.
P281  Use personal protective equipment as required.
P304+P340  If inhaled: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P405  Store locked up.
P501  Dispose of contents/container according to regional, national and international regulations.

Hazardous components for labelling:

2.3. Other Hazards

3.  Composition/Information on Ingredients

3.1. Substance

3.2. Mixture

Chemical Characterization:  Lead and tin oxides, with the inclusion of free tin oxide and silicon
Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

10120  Lead Tin Yellow II

Hazardous Ingredients:
Lead(II,IV) oxide (T,N; R61-62-50/53-20/22-33; H302-332-360-373-400-410); REACH Reg.-No. 01-2119517589-27-001
CAS-Nr: 1314-41-6
EINECS-Nr: 215-235-6
EC-Nr: 082-001-00-6

Additional information:

4. First Aid Measures

4.1. Description of the First Aid Measures

General information:
Take person away from hazardous area.
Immediately get medical help.

After inhalation:
Take affected person to fresh air.
Get medical help.

After skin contact:
Wash off immediately with plenty of soap and water and rinse thoroughly.

After eye contact:
Rinse open eye for several minutes under running water. Should irritation continue, seek medical advice.

After ingestion:
Consult a doctor.
Show product label to person applying first aid.

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

Symptoms:
See Chapter 11 for further information on symptoms and health hazards.

Effects:
No further information available.

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

Treatment:
Treat symptomatically.
Blood and urine tests can determine the amount of lead.

5. Fire-Fighting Measures

5.1. Extinguishing Media

Suitable extinguishing media:
Foam, carbon dioxide (CO2), extinguishing powder, water jet.

Unsuitable extinguishing media:
None known.

5.2. Special Hazards arising from the Substance or Mixture

Special hazards:
5.3. Advice for Firefighters

Protective equipment: Wear self-contained respiratory protective device.

Further information: Contaminated extinguishing water and debris should be disposed of according to local regulations.

6. Accidental Release Measures

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Personal precautions: Avoid formation of dust. Wear appropriate protective equipment. Keep spectators away.

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: Avoid dust formation. Use damp or absorbing material for clean up.

6.4. Reference to other Sections

7. Handling and Storage

7.1. Precautions for Safe Handling

Instructions on safe handling: Keep out of reach of children.

Hygienic measures: Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

7.2. Conditions for Safe Storage, including any Incompatibilities

Storage conditions: Store in roofed-in areas at room temperature.

Store in tightly sealed containers in a dry room.

Do not store together with food stuff and animal feed.

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

Information on fire and explosion protection: Product is not combustible.

Storage class (VCI): 6.1 B; Non combustible toxic products.
Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

10120 Lead Tin Yellow II

Warning! Contains lead.

7. 3. Specific End Use(s)

Further information: No information available.

8. Exposure Controls/Personal Protection

8. 1. Parameters to be Controlled

Parameters to be controlled (DE):
Lead and its compounds (referring to the lead content) is 0.1 mg/m³ air (total dust value). Besides staying within the average concentration amount per shift, exposure limits as an average value cannot exceed the 1 mg/m³ over 30 minutes per shift.

Parameters to be controlled (EC):
Derived No-Effect Level (DNEL): No values available.

Predicted No-Effect Concentration (PNEC): No values available.

Additional Information:
The biological workplace tolerance (BAT) is 300 µg/l for women up to 45 yrs. and 700 µg/l for others.

8. 2. Exposure Controls

Technical protective measures: No further measures, see Section 7.

Personal Protection

General protective measures:
Keep away from foodstuffs and drinks. Do not eat, drink or smoke during work. Wash hands before breaks and at the end of work.

Respiratory protection:
Wear protective mask, particle filter P2 (for solid and liquid particles DIN 3181) if dust occurs.

Hand protection:
Protective gloves (EN 374)

Protective glove material:
The glove material must be sufficiently impermeable and resistant against the product. Change gloves after contamination. Dispose of according to regulations.
Chloroprene rubber (CR), nitrile rubber (NBR), butyl rubber, Fluoro carbon rubber (FKM), polyvinyl chloride (PVC).

Eye protection:
Safety glasses with protective shields (EN 166).

Body protection:
Protective clothing, chemical resistant.
Environmental precautions:
Avoid contamination of sewage system, open water ways and ground water.

9. Physical and Chemical Properties
9.1. Information on Basic Physical and Chemical Properties

Form: powder
Color: yellow
Odor: odorless
Odor threshold: No information available.
pH-Value: not determined
Melting temperature: not known
Boiling temperature: not available
Flash point: not combustible
Evaporation rate: No information available.
Flammability (solid, gas): non-combustible
Upper explosion limit: not determined
Lower explosion limit: not determined
Vapor pressure: not determined
Vapor density: No information available.
Density: ca. 6.0 g/cm³
Solubility in water: practically insoluble
Coefficient of variation (n-Octanol/Water): not determined
Auto-ignition temperature: not applicable
Decomposition temperature: No data available.
Viscosity, dynamic:
Explosive properties: Risk of explosion when exposed to heat.

Oxidizing properties: no information available

Bulk density: not determined

9.2. Further Information

Solubility in solvents:
Viscosity, kinematic

Burning class:
Solvent content:
Solid content:
Particle size:
Other information: No further information.

10. Stability and Reactivity

10.1. Reactivity

Can decompose at excessive heat.

10.2. Chemical Stability

No decomposition if used according to specifications.

10.3. Possibility of Hazardous Reactions

Reacts with strong oxidants.
Reacts with acids.
Reacts with strong alkali metals, reducing agents, halogens.

10.4. Conditions to Avoid

Conditions to avoid: Avoid heat.

Thermal decomposition: No further information available.

10.5. Incompatible Materials

Keep away from strong oxidizing agents, reducing agents, alkali metals, acids, halogens.

10.6. Hazardous Decomposition Products

Lead, lead oxides, lead compounds.

10.7. Further Information

11. Toxicological Information

11.1. Information on Toxicological Effects

Acute Toxicity

LD50, oral:
Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

10120  Lead Tin Yellow II

Revised edition: 01.06.2012  Version: 1
Printed: 17.12.2013

Bas. Lead carbonate: >10000 mg/kg (rat) (Lit.)

LD50, dermal:  
No information available.

LC50, inhalation:  
No information available.

Primary effects

Irritant effect on skin:
Non irritating (rabbit)

Irritant effect on eyes:
Non-irritating to eyes (rabbit)

Inhalation:
No information available.

Ingestion:
No information available

Sensitization:
No information available.

Mutagenicity:
Lead metal: no detailed information available.

Reproductive toxicity:
Lead metal: the risk that this substance can impair the human fertility is given.

Cancerogenity:
Not sufficient information available.

Teratogenicity:
No information available.

Specific target organ toxicity (STOT):
Repeated exposure: may cause damage to organs.

Additional toxicological information:
Lead compounds are heavy soluble compounds, however, lead particles dissolve in hydrochloric acid in gastric fluids concentration and may accumulate in the body. Prolonged over-exposure to lead compounds may interfere with the biosynthesis of haemoglobin and may cause irreversible disorders of the nervous system.

12.  Ecological Information

12.1.  Aquatic Toxicity

Toxic for aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Fish toxicity:
Daphnia toxicity:
Bacteria toxicity:
Algae toxicity:
12.2. **Persistency and Degradability**

Lead may be dissolved in acid or alkaline media (amphotery). Elimination from water must be done by chemical flocculation.

12.3. **Bioaccumulation**

The product contains lead. Any exposure to the environment must be eliminated. Special treatment is necessary before disposing of the product or its by-products or contaminated water.

12.4. **Mobility**

The product is almost completely insoluble.

12.5. **Results of PBT- und vPvP Assessment**

No data available.

12.6. **Other Adverse Effects**

**Water hazard class:**

3, hazardous

**Behaviour in sewage systems:**

**Further ecological effects:**

General information for lead compounds:

Toxic to water organisms.

**AOX Value:**

13. **Disposal Considerations**

13.1. **Waste Treatment Methods**

**Product:**

In accordance with current regulations, product has to be taken to a special waste disposal site, after consultation with site operator and/or with the responsible authority. Product may not be burned.

**European Waste Code (EWC):**

**Uncleaned packaging:**

Packaging that may not are to be disposed of in the same manner as the product.

Uncontaminated packaging may be recycled.

**Waste Code No.:**

14. **Transport Information**

14.1. **UN Number**

**ADR, IMDG, IATA**

2291

14.2. **UN Proper Shipping Name**

**ADR/RID:**

BLEIVERBINDUNG, LÖSLICH, N.A.G. (Bleistannat)

**IMDG/IATA:**

LEAD COMPOUND, SOLUBLE, N.O.S. (Lead Stannate)

14.3. **Transport Hazard Classes**

**ADR Class:**

6.1

**Hazard no.:**

6.1

**Classification code:**

T5
Material Safety Data Sheet
According to regulation (EC) No. 1907/2006 (REACH)

10120  Lead Tin Yellow II

Tunnel no.: E
IMDG Class (sea): 6.1
Hazard no.: 6.1
EmS No.: F-A, S-A
IATA Class: 6.1
Hazard no.: 6.1

14. 4. Packaging Group
ADR/RID: III
IMDG: III
IATA: III

14. 5. Environmental Hazards

14. 6. Special Precautions for User

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

14. 8. Further Information

15. Regulatory Information
15. 1. Safety, Health and Environmental Regulations/Legislation specific for the Substance or Mixture

Water hazard class: 3, very hazardous for water

Local regulations on chemical accidents:

Employment restrictions:
The employment restrictions for expectant and nursing mothers in accordance with the Maternity Protection Guideline (94/85/EEC) are to be observed.
Concerning pregnancy: group B (TRGS 505, TRGS 900, Germany)
The employment restrictions for young workers in accordance with the Youth Employment Protection Law (94/33/EC) are to be observed.

Restriction and prohibition of application:

Technical instructions on air quality:

5.2.2.: Inorganic dusty substances

15. 2. Chemical Safety Assessment

A Chemical Safety Assessment has not yet 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 therefore not be construed as guaranteeing specific properties.

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

10120  Lead Tin Yellow II


The following sections were changed: 1-16