Hangzhou AiBai Chemical Co., Ltd

Factory add: Yipeng Xiaoshan Hangzhou Tel: 86-571-22673158 Fax: 86-571-83735088 Web: www.xcolorpigment.com

Material Safety Data Sheet

According to 91/155/EEC and ISO 11014-1

Printing date: 2015/12/01

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1. Identification of substance and of the company

   Trade Name: Pigment Yellow HGR 191
   Hangzhou AiBai Chemical Co., Ltd
   Room 2316, Building 17 Kaiyuan California Sunshine Plaza
   Xiaoshan Hangzhou China
   TEL: +86-571-22673158 FAX: +86-571-83885208

2. Composition/Data on components

   Substance: Pigment Yellow 191
   CAS No: 129423-54-7 EEC Symbol: None R-Phrases: None

3. Hazards identification

   No hazardous effects known
   The product is not a substance subject to mandatory marking in accordance with the EEC Directive 67/584/EEC or amendments

4. First Aid measures

   After inhalation: Supply fresh air.
   After eye contact: Flush with plenty of pressure water for 15 minutes, occasionally raising eye lids.
   After skin contact: Wash skin with mild soap and water.

5. Fire fighting measures

   Suitable extinguishing media: no restriction
   Special hazards caused by the material, its combustion products or resultant gases: none
   Special personal protection equipment: none

6. Accidental release

   Environmental protection conduct: Do not sweep or wash into public stretches of water, sewers or sites of unknown discharge paths.
   After spillage/leakage/gas/leakage:
   Clean up immediately with wetting or absorbent material avoiding dusting.

7. Handling and storage

   Handling:
   Usual precautions for nuisance dust should be observed.
   Protection against fire and explosion:
   The product is non-flammable
   Storage:
   Store in roofed places at room temperature. Keep containers tightly sealed.
   Flammability Class: not applicable.

8. Exposure controls/personal protection

   Additional notes for design of plants equipment:
   No further details, see sec 7
   Components with workplace-related limits to be monitored:

<table>
<thead>
<tr>
<th>Designation</th>
<th>%</th>
<th>Type of data</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nuisance dust</td>
<td>100</td>
<td>MAK</td>
<td>6 mg/m³</td>
</tr>
<tr>
<td></td>
<td></td>
<td>TLV/TWA(USA)</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

   Personal protection equipment:
   Respiratory protection:
   An appropriate dust fixer has to be used if a breathable dust liberated.
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<table>
<thead>
<tr>
<th>Trade name: Pigment Yellow 191</th>
</tr>
</thead>
</table>

9. Physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Yellow powder</td>
</tr>
<tr>
<td>Odor</td>
<td>mild</td>
</tr>
<tr>
<td>Melting point</td>
<td>114°C</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.5</td>
</tr>
<tr>
<td>Decomposition</td>
<td>None</td>
</tr>
<tr>
<td>Flammability</td>
<td>see 7 handling</td>
</tr>
<tr>
<td>Molecular formula</td>
<td>C₁₇H₁₅Cl₄N₄O₇S₂</td>
</tr>
<tr>
<td>Molecular Weight</td>
<td>486.91</td>
</tr>
<tr>
<td>Tinting strength</td>
<td>95-105% of the standard</td>
</tr>
<tr>
<td>Soluble matter in water</td>
<td>1.5% max</td>
</tr>
<tr>
<td>Fastness to light</td>
<td>7</td>
</tr>
<tr>
<td>Fastness to heat (°C)</td>
<td>300</td>
</tr>
<tr>
<td>Bleeding resistance water</td>
<td>5</td>
</tr>
<tr>
<td>Bleeding resistance linseed oil</td>
<td>5</td>
</tr>
<tr>
<td>Bleeding resistance acid</td>
<td>5</td>
</tr>
<tr>
<td>Bleeding resistance alkalis</td>
<td>5</td>
</tr>
<tr>
<td>Bleeding resistance alcohol</td>
<td>5</td>
</tr>
<tr>
<td>Bleeding resistance xylene</td>
<td>4</td>
</tr>
<tr>
<td>Bleeding resistance ethyl acetate</td>
<td>4</td>
</tr>
</tbody>
</table>

10. Stability and reactivity

Hazardous decomposition products
No decomposition at proper storage and application conditions

11. Toxicological Information

Because of experience with product mentioned, there are no recognizable hazards for human beings, if it is correctly used and applied.

12. Ecological information

Avoid filtration into water draining or soil.

13. Disposal considerations

Uses should acquaint themselves with local regulations.
Disposal is usually carried out by burying at an approved tip or by incineration by a licensed waste material processor; stack gases may need to be scrubbed (see section 5 above)

14. Transport information

No declaration for transport required

15. Regulatory information

Classified according to the Directives 67/548/EEC, and their various amendments, and labeled as below:
Warning symbols: None
Warning words: None
Risk Phrases: None
Safety Phrases: None

16. Other information

Listed in EINECS and TSCA inventories.
Intended uses: Paints.
References: (1) Occupational Exposure Limits, EH/40(HSE)
- (2) Deutsche Forschungsgemeinschaft MAK-& BAT-Values.