GPS Safety Summary
Iron hydroxide oxide yellow

Chemical Identity

Name: Iron hydroxide oxide yellow
CAS number: 51274-00-1
Molecular formula: Fe(OH)O

IUPAC name: Iron hydroxide oxide
BASF brand names: Sicotrans® Yellow L 1916
Sicotrans® Yellow L 1916 FC

For synonyms see end of document

Product Uses

Iron oxide yellow pigments distinguishes between synthetic and natural grades. They can be precipitated from iron(II)sulfate solution by oxidizing with air and neutralizing with sodium carbonate. It is used as coloring agent and pigment and is therefore contained in consumer products.

Benefits

Sicotrans yellow pigments are very small particle sized iron oxide pigments. Applications are wood coatings for outdoor use and automotive effect coatings. They are stable to alkali and inexpensive in use. Their strong UV absorption gives additional light- and weather protection to substrate and binder.
Sicotrans FC-grades are controlled products for food-contact.
Health Information

Human Health Safety Assessment

*Note: The information contained in the table below may be useful to someone handling the concentrated substance such as a manufacturer or transporter. Consumers are not likely to come in contact with the concentrated substance. The data, while verifiable, are not intended to be comprehensive nor replace the data found in the (M)SDS.*

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity</td>
<td>Virtually nontoxic after a single ingestion.</td>
</tr>
<tr>
<td>Irritation</td>
<td>Not irritating to the skin and eyes.</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Skin sensitizing effects were not observed in animal studies.</td>
</tr>
<tr>
<td>Mutagenicity</td>
<td>No mutagenic effect was found in various tests with bacteria and mammalian cell culture. The substance was not mutagenic in a test with mammals. The statement has been derived from products of a similar structure or composition.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>The whole of the information available provides no indication of a carcinogenic effect.</td>
</tr>
<tr>
<td>Toxicity after repeated exposure</td>
<td>The substance may cause increase in lung mass and lung tissue changes after repeated inhalation. The statements have been derived in parts from products of a similar structure or composition.</td>
</tr>
<tr>
<td>Toxicity for reproduction</td>
<td>Due to the lack of systemic availability, effects on reproductive organs and the unborn child are not expected.</td>
</tr>
</tbody>
</table>

Environmental Information

Environment Safety Assessment

*Note: The information in this chapter is intended to provide brief and general information of this substance’s environmental impact. The results in the table below refer to testing performed with the concentrated substance. The data contained in this section explain the relative effect of the concentrated substance on the environment, as defined by certain tests.*

<table>
<thead>
<tr>
<th>Effect Assessment</th>
<th>Result</th>
</tr>
</thead>
</table>
Aquatic Toxicity  | With high probability acutely not harmful to aquatic organisms.
---|---
Persistence and degradability  | Inorganic substance, therefore biodegradation testing is not applicable.
Bioaccumulation potential  | Inorganic substance, therefore bioaccumulation testing is not applicable.

Physical/Chemical Properties

Phys/Chem Safety Assessment

- Iron hydroxide oxide is a yellow powder which is almost insoluble in water. It is non-flammable and non-explosive.

Note: *The results in the table below refer to testing performed with the concentrated substance. It is not intended to be comprehensive or to replace information found in the (M)SDS.*

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Solid</td>
</tr>
<tr>
<td>Melting / freezing point</td>
<td>&gt; 1000 °C at 1013 hPa</td>
</tr>
<tr>
<td>Boiling point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flash point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Flammability</td>
<td>Non-flammable</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Non-explosive</td>
</tr>
<tr>
<td>Self-ignition temperature</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

Exposure Potential

- **Workplace exposure**: Based on the very low toxicity of iron hydroxide oxide yellow exposure is considered to be without risk. Iron hydroxide oxide yellow released during manufacturing or handling is of no concern for the health of workers since it does not induce any adverse effects at relevant doses. Nevertheless, workers should follow the recommended safety measures in the extended Safety Data Sheet (eSDS).

- **Consumer exposure**: Based on the very low toxicity of iron hydroxide oxide yellow exposure is considered to be without risk. Iron hydroxide oxide yellow released during
handling is of no concern for the health of consumers since consumers will not come into contact with harmful levels of iron hydroxide oxide yellow.

- **Environmental exposure:** Due to the inorganic nature of the chemical biodegradation is per definition not possible. Iron hydroxide oxide yellow is an inorganic substance which is almost insoluble in water and hence of limited bioavailability. The substance is with high probability not harmful to aquatic organisms. Conclusively, all identified uses are safe for the environment based on the scientific facts summarized above and when carried out in compliance with recommended risk management measures and applicable regulations.

**Recommended Handling Measures**

The recommended safety measures generally apply in contact with the concentrated substance. **It is NOT intended to replace the comprehensive guidance found in the (M)SDS, only supplement it. Please refer to the (M)SDS for specific safety and first aid measures.**

When using concentrated chemicals always make sure that there is adequate ventilation. Always use appropriate chemical resistant gloves to protect your hands and skin and always wear eye protection such as chemical goggles. Do not eat, drink, or smoke where chemicals are handled, processed, or stored. Wash hands and skin following contact. If the substance gets into your eyes, rinse eyes thoroughly for at least 15 minutes with tap water and seek medical attention. For specific advice please consult the corresponding (Material) Safety Data Sheet of the substance.

All effluent releases that may include the substance must be directed to a (municipal) waste water treatment plant that removes the substance from the final releases to the receiving water.

**Regulatory Information / Classification and Labeling**

Under GHS substances are classified according to their physical, health, and environmental hazards. The hazards are communicated via specific labels and the (M)SDS. GHS attempts to standardize hazard communication so that the intended audience (workers, consumers, transport workers, and emergency responders) can better understand the hazards of the chemicals in use.
Note: The hazard statements and symbols presented here refer to the hazard properties of the concentrated substance and are meant to provide a brief overview of the substance’s labeling. It is not intended to be comprehensive or to replace information found in the (M)SDS.

Labeling according to UN GHS
UN GHS is the basis for country specific GHS labeling

Based on available data, labeling is currently not required.

Additional information

1. IFA GESTIS-database on hazardous substances
   http://www.dguv.de/ifa/en/gestis/stoffdb/index.jsp

2. Information on registered substance (ECHA)

3. BASF Product Finder
   http://www.basf.com/group/corporate/en/brand/SICOTRANS

Most commonly used synonyms

» C.I. Pigment Yellow 42
» Ariabel Yellow 300407
» AZ 138
» Bayferrox 3950
» Bayferrox Yellow 420
» Bayferrox Yellow 920
» Cappoxyt Yellow 4214
» Cappoxyt Yellow 4214C
» Cosmetic Yellow
» Iron Oxide Orange Transparent 188VN
» Iron oxide yellow
» Iron Yellow
» Iron Yellow AZ 138
» L 1
» LL-XLO
» Mapico Yellow 1050
» Mapico Yellow 5
» Mapico Yellow LL-XLO
» Pure Yellow Oxide YO 6087
» Synthetic yellow iron oxide pigment
» Toda Color Y 2

Disclaimer

This Product Safety Summary is intended to provide a general overview of the chemical substance. It contains basic information and is not intended to provide emergency response information, medical information or treatment information. The summary cannot be relied on to provide in-depth safety and health information. In-depth safety and health information must be obtained from the Material Safety Data Sheet ((M)SDS) for the chemical substance.

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Contact

For further information on this substance or GPS safety summaries in general, please contact: info.gps@basf.com