1. Product and Company Identification

Material name: YELLOW 30C119
Version #: 07
Issue date: 11-30-2010
Revision date: 10-18-2013
Supersedes date: 06-26-2013
Chemical name: NICKEL ANTIMONY TITANIUM YELLOW RUTILE
Product Code: YL0030C119
Synonym(s): C.I. Pigment Yellow 53 * CI Constitution #77788 * CPMA #11-15-4
Manufacturer: THE SHEPHERD COLOR COMPANY
Manufacturer Information: SHEPHERD COLOR INTERNATIONAL
Serskampsteenweg 135A
B-9230 Wetteren, Belgium
Phone: +32-9-366-1111
SHEPHERD COLOR INTERNATIONAL
Kingston Trade Centre
100 Cochranes Road
Moorabbin, Victoria 3189  Australia
Phone: +61-3-9532-5260
SHEPHERD COLOR INTERNATIONAL
Odakyu Dai-ichi Seimei Building 4-F
Shinjuku-ku
Tokyo, Japan 163-0704
Phone: +813-3344-3010

EMERGENCY INFORMATION: CHEMTREC - Domestic 800-424-9300
CHEMTREC - International 703-527-3887

2. Hazards Identification

Emergency overview: Health injuries are not known or expected under normal use.
Potential health effects:
- Routes of exposure: Inhalation. Ingestion.
- Eyes: This product may cause slight irritation to the eyes.
- Skin: This product may cause irritation to the skin.
- Inhalation: Inhalation of dusts may cause respiratory irritation.
- Ingestion: Health injuries are not known or expected under normal use.

Signs and symptoms: Product dust may be irritating to eyes, skin and respiratory system.
Potential environmental effects: Ecological injuries are not known or expected under normal use.

3. Composition / Information on Ingredients

Components | CAS # | Percent
--- | --- | ---
NICKEL ANTIMONY TITANIUM YELLOW RUTILE | 8007-18-9 | 100

Composition comments: This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure, the properties of this finished pigment do not necessarily reflect the properties of the component metals or oxides.
4. First Aid Measures

First aid procedures

**Eye contact**
Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention if irritation develops or persists.

**Skin contact**
Wash the skin immediately with soap and water. Get medical attention if irritation develops or persists.

**Inhalation**
Remove to fresh air. If the affected person is not breathing, apply artificial respiration. If breathing is difficult, give oxygen. Call a physician if symptoms develop or persist.

**Ingestion**
Never give anything by mouth to an unconscious person. If swallowed, do NOT induce vomiting. Give several glasses of water to dilute contents of stomach and call a physician.

**General advice**
If you feel unwell, seek medical advice (show the label where possible). Show this safety data sheet to the doctor in attendance. Where there is a potential for eye exposure to this substance, an eye wash fountain should be provided within the immediate work area for emergency use.

5. Fire Fighting Measures

**Flammable properties**
The product is not flammable.

**Extinguishing media**

- **Suitable extinguishing media**
  Use extinguishing agent suitable for type of surrounding fire.

- **Unsuitable extinguishing media**
  Not applicable.

**Protection of firefighters**
None known.

**Protective equipment and precautions for firefighters**
Use protective equipment appropriate for surrounding materials.

**Fire fighting equipment/instructions**
Not a fire hazard.

**Specific methods**
Not established.

**General fire hazards**
This product is not flammable.

6. Accidental Release Measures

**Personal precautions**
Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of dust from the spilled material.

**Environmental precautions**
Do not discharge into drains, water courses or onto the ground.

**Methods for containment**
Collect material into appropriate containers for reuse or disposal. Material may also be flushed with water to a wastewater treatment system.

**Methods for cleaning up**
Avoid dust formation. Clean up promptly by scoop or vacuum. Flush the area with water.

**Other information**
Clean up in accordance with all applicable regulations.

7. Handling and Storage

**Handling**
Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Keep formation of airborne dusts to a minimum. When using, do not eat, drink or smoke. Wash hands thoroughly after handling.

**Storage**
Room temperature - normal conditions. Use care in handling/storage. Store in closed original container in a dry place. Keep in properly labelled containers.

8. Exposure Controls / Personal Protection

**Occupational exposure limits**

**ACGIH**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>% Metal</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIMONY AND COMPOUNDS</td>
<td>TLV</td>
<td>0.5 mg/m3</td>
<td>5 - 15%</td>
<td>(as Sb)</td>
</tr>
<tr>
<td>NICKEL METAL AND INSOLUBLE COMPOUNDS</td>
<td>TLV</td>
<td>0.2 mg/m3</td>
<td>2 - 10%</td>
<td>(as Ni); Respirable</td>
</tr>
</tbody>
</table>

**U.S. - OSHA**

<table>
<thead>
<tr>
<th>Components</th>
<th>Type</th>
<th>Value</th>
<th>% Metal</th>
<th>Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>ANTIMONY AND COMPOUNDS</td>
<td>PEL</td>
<td>0.5 mg/m3</td>
<td>5 - 15%</td>
<td>(as Sb)</td>
</tr>
</tbody>
</table>
Components | Type | Value | % Metal | Form
---|---|---|---|---
NICKEL METAL AND INSOLUBLE COMPOUNDS | PEL | 1 mg/m3 | 2 - 10% | (as Ni)

**Engineering controls**
Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**Personal protective equipment**

**Eye / face protection**
Safety glasses with side-shields.

**Skin protection**
Normal work clothing (long sleeved shirts and long pants) is recommended.

**Respiratory protection**
Use a particulate filter respirator for particulate concentrations exceeding the Occupational Exposure Limit. A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use. If airborne concentrations are above the applicable exposure limits, use NIOSH approved respiratory protection. MSHA/NIOSH respirators approved for dusts TC-21C or NIOSH approved cartridges for Non-oil aerosols, N95, N99, N100 (42 CFR 84). If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

**General hygiene considerations**
Use personal protective equipment as required. Handle in accordance with good industrial hygiene and safety practice.

**9. Physical & Chemical Properties**

**Appearance**
Powder.

**Physical state**
Solid.

**Form**
Powder.

**Color**
yellow

**Odor**
None.

**Odor threshold**
Not available.

**pH**
4.4 Shepherd Color Test Method 101

**Vapor pressure**
Not applicable.

**Vapor density**
Not applicable

**Boiling point**
Not applicable

**Melting point/Freezing point**
Not applicable

**Solubility (water)**
Negligible

**Specific gravity**
4.5 Shepherd Color Test Method 312

**Relative density**
Not available.

**Flash point**
Not applicable.

**Flammability limits in air, upper, % by volume**
Not applicable.

**Flammability limits in air, lower, % by volume**
Not applicable.

**Auto-ignition temperature**
Not applicable.

**Evaporation rate**
Not applicable

**Viscosity**
Not applicable

**Other data**

**Decomposition temperature**
Not applicable

**Flammability (solid, gas)**
Not applicable

**Loose Packing Density**
6.2 lb/gal Shepherd Color Test Method 194
10. Chemical Stability & Reactivity Information

Chemical stability
Stable under normal temperature conditions and recommended use.

Conditions to avoid
None known.

Incompatible materials
None known.

Hazardous decomposition products
No hazardous decomposition products are known.

Possibility of hazardous reactions
Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>YELLOW 30C119</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Inhalation</em></td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>Not Tested</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt;= 10000 mg/kgShepherd Color Company Data</td>
</tr>
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<td></td>
</tr>
<tr>
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</tr>
</tbody>
</table>

Sensitization
No data available.

Acute effects
May be slightly irritating to skin and eyes. May cause respiratory irritation.

Component analysis - LD50
Refer to LD 50 information above.

Local effects
Product dust may be irritating to eyes, skin and respiratory system.

Chronic effects
No data available.

Subchronic effects
No data available.

Skin corrosion/irritation
Contact with skin may cause irritation.

Epidemiology
No epidemiological data is available for this product.

Mutagenicity
Not mutagenic in Ames Test. Not mutagenic in Bacterial Reverse Mutation Assay. (Color Pigments Manufacturers Association Data).

Reproductive effects
No data available.

Teratogenicity
No data available.

Symptoms and target organs
Product dust may be irritating to eyes, skin and respiratory system.

Human experience
Product dust may be irritating to eyes, skin and respiratory system.

Further information
This product is the result of high temperature calcination of the component substances. Due to its unique crystalline structure the properties of this finished material do not necessarily reflect the properties of the component metals or oxides.

Rabbit tests for primary skin irritant (not irritating: average score 0.5/8.0). Rabbit tests for eye irritants: no ulceration, corneal opacity or iris inflammation. Acute toxicity 90 days oral feeding and skin and eye irritation test on rats have indicated no toxic symptoms. Repeated overexposure to this compound may cause eye, skin and respiratory tract irritation. Some compounds of the metals used in the manufacturing of this pigment Nickel and Antimony have demonstrated various toxic properties. However, there is no evidence that this pigment has these toxic characteristics.
### Ecological Information

<table>
<thead>
<tr>
<th>Ecotoxicological data</th>
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<td><strong>Test Results</strong></td>
</tr>
<tr>
<td>颚黄30C119</td>
<td>Desmodesmus subspicatus</td>
<td>64.1 mg/l, 72 hSIDS Initial Assessment Report (March 31, 2004)</td>
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<tr>
<td></td>
<td>Desmodesmus subspicatus</td>
<td>&gt; 100 mg/l, 100 hSIDS Initial Assessment Report (March 31, 2004)</td>
</tr>
<tr>
<td></td>
<td>Selenastrum capricornutum</td>
<td>&gt; 72 mg/l, 72 hSIDS Initial Assessment Report (March 31, 2004)</td>
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<td>Leuciscus idus</td>
<td>10000 mg/l, 96 hSIDS Initial Assessment Report (March 31, 2004)</td>
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<td>Oryzias latipes</td>
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<td>Desmodesmus subspicatus</td>
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<tr>
<td><strong>Crustacea</strong></td>
<td>Daphnia</td>
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<td></td>
<td>Pseudomonas putida</td>
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<tr>
<td><strong>Other</strong></td>
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<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Other</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Ecotoxicity
- Not expected to be harmful to aquatic organisms.

Environmental effects
- Not classified as an environmental hazard.

Aquatic toxicity
- This material is not expected to be harmful to aquatic life.

Persistence and degradability
- The product is not expected to be biodegradable.

Bioaccumulation / Accumulation
- The product does not contain any substances expected to be bioaccumulating.

Mobility in environmental media
- The product is insoluble in water.

13. Disposal Considerations
Disposal instructions
- All wastes must be handled in accordance with local, state and federal regulations.
Waste from residues / unused products
- Dispose of in accordance with local regulations.
Contaminated packaging
- Since emptied containers retain product residue, follow label warnings even after container is emptied.

14. Transport Information
DOT
- Not regulated as dangerous goods.
IATA
- Not regulated as dangerous goods.
IMDG
- Not regulated as dangerous goods.
15. Regulatory Information

US federal regulations

All components are on the U.S. EPA TSCA Inventory List. This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200. IARC and the NTP consider nickel compounds to be carcinogenic to humans. (Monograph #49).

THIS PRODUCT CONTAINS A CHEMICAL OR CHEMICALS SUBJECT TO THE REPORTING REQUIREMENTS OF SECTION 313 OR TITLE III OF THE SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT OF 1986 AND 40 CFR PART 372. THIS INFORMATION MUST BE INCLUDED IN ALL MSDS THAT ARE COPIED AND DISTRIBUTED FOR THIS MATERIAL.

100% NICKEL COMPOUND
100% ANTIMONY COMPOUND.

Drug Enforcement Administration (DEA). List 2, Essential Chemicals (21 CFR 1310.02(b) and 1310.04(f)(2) and Chemical Code Number
Not listed.

Drug Enforcement Administration (DEA). List 1 & 2 Exempt Chemical Mixtures (21 CFR 1310.12(c))
Not regulated.

DEA Exempt Chemical Mixtures Code Number
Not regulated.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)
Not regulated.

CERCLA (Superfund) reportable quantity
None

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories
Immediate Hazard - Yes
Delayed Hazard - Yes
Fire Hazard - No
Pressure Hazard - No
Reactivity Hazard - No

Section 302 extremely hazardous substance
No

SARA 311/312 Hazardous chemical
Yes

Inventory status

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
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<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
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<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>Yes</td>
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<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
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<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>Yes</td>
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<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
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<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
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</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>Yes</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

US state regulations

WARNING: This product contains a chemical known to the State of California to cause cancer.

US. Massachusetts RTK - Substance List
Not regulated.

US. Pennsylvania RTK - Hazardous Substances
Not regulated.
US. Rhode Island RTK
Not regulated.

16. Other Information

Further information  HMIS® is a registered trade and service mark of the NPCA.

HMIS® ratings  Health: 1*
Flammability: 0
Physical hazard: 0

Disclaimer  The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

This data sheet contains changes from the previous version in section(s):  Regulatory Information: United States
HazReg Data: North America
GHS: Classification