SAFETY DATA SHEET
Synthetic Black Iron Oxide (Group III)
Laguna Clay Company # MIROXBKOI

1. Identification

Product identifier
Product name Synthetic Black Iron Oxide (Group III)
Chemical name Black Iron Oxide (Fe3O4)
Product number BK4799,BK5000,BK5099,BK5099D,BK5599,BK5999,TB5600,TB5625,TB5645,TB5980

Recommended use of the chemical and restrictions on use
Application Industrial color

Details of the supplier of the safety data sheet
Supplier Huntsman Pigments Americas LLC
P.O. Box 4980
The Woodlands, TX 77387
+1 301 210 3400 / +1 323 269 7311
MSDS@huntsman.com

Emergency telephone number
Emergency telephone CHEMTREC: (800) 424-9300 (Contract No: 191118)

2. Hazard(s) identification

Classification of the substance or mixture
Physical hazards Self-heat. 2 - H252
Health hazards Not Classified
Environmental hazards Not Classified

Environmental The product is not expected to be hazardous to the environment.

Label elements
Pictogram

Signal word Warning

Hazard statements H252 Self-heating in large quantities; may catch fire.

Precautionary statements P235+P410 Keep cool. Protect from sunlight.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P407 Maintain air gap between stacks/pallets.
P413 Store bulk masses greater than kg/lbs at temperatures not exceeding °C/°F.
P420 Store away from other materials.

Other hazards
Synthetic Black Iron Oxide (Group III)

NOT CLASSIFIED Self-heating in packages up to 450 liters capacity.

3. Composition/Information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>C.I. Pigment Black 11 (Group III)</th>
<th>99.0%</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS number: 1317-61-9</td>
<td></td>
</tr>
</tbody>
</table>

Classification

Self-heat. 2 - H252

The Full Text for all Hazard Statements are Displayed in Section 16.

4. First-aid measures

Description of first aid measures

Inhalation
Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion
Do not induce vomiting. Rinse mouth thoroughly with water. Give plenty of water to drink. Keep affected person under observation. Get medical attention if any discomfort continues. Show this Safety Data Sheet to the medical personnel. Never give anything by mouth to an unconscious person.

Skin Contact
Wash skin thoroughly with soap and water. Get medical attention if irritation persists after washing.

Eye contact
Rinse with water. Get medical attention if any discomfort continues.

Most important symptoms and effects, both acute and delayed

Inhalation
Frequent inhalation of dust over a long period of time increases the risk of developing lung diseases.

Ingestion
Due to the physical nature of this material it is unlikely that swallowing will occur.

Skin contact
Prolonged contact may cause redness, irritation and dry skin.

Eye contact
May cause temporary eye irritation.

Indication of immediate medical attention and special treatment needed

Notes for the doctor
Treat symptomatically.

5. Fire-fighting measures

Extinguishing media

Suitable extinguishing media
Use fire-extinguishing media suitable for the surrounding fire.

Unsuitable extinguishing media
Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards
No unusual fire or explosion hazards noted.

Advice for firefighters

Protective actions during firefighting
Avoid breathing fire gases or vapors. Evacuate area. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Control run-off water by containing and keeping it out of sewers and watercourses. If risk of water pollution occurs, notify appropriate authorities.
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6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Personal precautions
Wear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions
Avoid spreading dust or contaminated materials. Avoid the spillage or runoff entering drains, sewers or watercourses.

Methods and material for containment and cleaning up

Methods for cleaning up
Remove spillage with vacuum cleaner. If not possible, collect spillage with shovel, broom or the like. Avoid generation and spreading of dust.

Reference to other sections
For personal protection, see Section 8.

7. Handling and storage

Precautions for safe handling

Usage precautions
Do not eat, drink or smoke when using the product. Good personal hygiene procedures should be implemented. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. For pallets wrapped in polyethylene plastic, removal may cause an electrostatic spark; removal of the wrap should not be done in the presence of flammable vapors.

Conditions for safe storage, including any incompatibilities

Storage precautions
Keep container dry.

Specific end use(s)
The identified uses for this product are detailed in Section 1.2.

8. Exposure Controls/personal protection

Exposure controls

Protective equipment

Appropriate engineering controls
Provide adequate general and local exhaust ventilation. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection
Eyewear complying with an approved standard should be worn if a risk assessment indicates eye contact is possible. The following protection should be worn: Dust-resistant, chemical splash goggles.

Hand protection
Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible.

Other skin and body protection
Wear appropriate clothing to prevent repeated or prolonged skin contact.

Hygiene measures
Wash hands at the end of each work shift and before eating, smoking and using the toilet. When using do not eat, drink or smoke.
Synthetic Black Iron Oxide (Group III)

Respiratory protection
Wear NIOSH-certified particulate respirator

Environmental exposure controls
Keep container tightly sealed when not in use.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Dusty powder.</td>
</tr>
<tr>
<td>Color</td>
<td>Black.</td>
</tr>
<tr>
<td>Odor</td>
<td>Odorless.</td>
</tr>
<tr>
<td>Initial boiling point and range</td>
<td>Not relevant.</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td>Insoluble in water.</td>
</tr>
<tr>
<td>Other information</td>
<td>No information required.</td>
</tr>
<tr>
<td>Volatile organic compound</td>
<td>This product contains a maximum VOC content of None.</td>
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</tbody>
</table>

10. Stability and reactivity

Reactivity
There are no known reactivity hazards associated with this product.

Stability
Exposure to heat greater than 55°C (130°F) can cause this product to slowly auto-oxidize, which generates additional heat. Under certain circumstances, this heat may be sufficient to cause the bag or combustible materials stored nearby to ignite. Once oxidized, the material will be a brown ferric oxide (Fe2O3).

Possibility of hazardous reactions
No potentially hazardous reactions known.

Conditions to avoid
There are no known conditions that are likely to result in a hazardous situation. Keep at temperature not exceeding 55°C/130°F.

Materials to avoid
No specific material or group of materials is likely to react with the product to produce a hazardous situation.

Hazardous decomposition products
Does not decompose when used and stored as recommended. Will decompose at temperatures exceeding 55°C/130°F.

11. Toxicological information

Information on toxicological effects

Toxicological effects
No data recorded.

12. Ecological Information

Ecotoxicity
The product is not expected to be hazardous to the environment.

Persistence and degradability
The product is not readily biodegradable.

Bioaccumulative potential
Bio-Accumulative Potential
Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Mobility in soil
Synthetic Black Iron Oxide (Group III)

Mobility
The product is insoluble in water.

Results of PBT and vPvB assessment
This product does not contain any substances classified as PBT or vPvB.

Other adverse effects
None known.

13. Disposal considerations
Waste treatment methods
General information
Waste to be treated as controlled waste. Disposal in accordance with federal, state and local regulations.

14. Transport information
General
This product is NOT REGULATED when the individual package size is less than 450 liters in volume. OTHERWISE, this product is regulated as follows:

UN Number
Not applicable.

UN No. (IMDG) 3190
UN No. (ICAO) 3190

UN proper shipping name
Not applicable.

Proper shipping name (DOT) SELF-HEATING SOLID, INORGANIC, N.O.S. (CONTAINS C.I. Pigment Black 11 (Group III))
Proper shipping name (IMDG) SELF-HEATING SOLID, INORGANIC, N.O.S. (CONTAINS C.I. Pigment Black 11 (Group III))
Proper shipping name (ICAO) SELF-HEATING SOLID, INORGANIC, N.O.S. (CONTAINS C.I. Pigment Black 11 (Group III))

Transport hazard class(es)
No transport warning sign required.

DOT hazard class 4.2
DOT hazard label Spontaneously Combustible
IMDG Class 4.2
ICAO class/division 4.2

Transport labels

Packing group
Not applicable.

DOT pack group III
IMDG packing group III
Synthetic Black Iron Oxide (Group III)

ICAO packing group  III

Environmental hazards

Environmentally Hazardous Substance
No.

Special precautions for user
Not applicable.

EmS  F-A, S-J

Transport in bulk according to  Not applicable.
Annex II of MARPOL 73/78
and the IBC Code

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities
None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)
None of the ingredients are listed or exempt.

SARA 313 Emission Reporting
None of the ingredients are listed or exempt.

CAA Accidental Release Prevention
None of the ingredients are listed or exempt.

US State Regulations

State Regulations Comments  California Prop 65 Warning: This product contains chemicals, as trace impurities and not
intentionally added, known to the state of California to cause cancer (C) and birth defects or
other reproductive (R) harm.

Inventories

EU - EINECS/ELINCS
EINECS
All the ingredients are listed or exempt.

Canada - DSL/NDSL
DSL
All the ingredients are listed or exempt.

US - TSCA
All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification
No.

Australia - AICS
All the ingredients are listed or exempt.

Japan - MITI
All the ingredients are listed or exempt.
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Korea - KECI
All the ingredients are listed or exempt.

China - IECSC
All the ingredients are listed or exempt.

Philippines - PICCS
All the ingredients are listed or exempt.

New Zealand - NZIOC
All the ingredients are listed or exempt.

16. Other Information

<table>
<thead>
<tr>
<th>Issued by</th>
<th>Product Regulations Dept</th>
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<tbody>
<tr>
<td>Revision date</td>
<td>1/26/2016</td>
</tr>
<tr>
<td>Revision</td>
<td>13</td>
</tr>
<tr>
<td>Supersedes date</td>
<td>12/9/2015</td>
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<tr>
<td>SDS No.</td>
<td>18367</td>
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<td>SDS status</td>
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<tr>
<td>Hazard statements in full</td>
<td>H252 Self-heating in large quantities; may catch fire.</td>
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