SAFETY DATA SHEET
Synthetic Black Iron Oxide (Group III)

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

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

This product does not contain any substances classified as PBT or vPvB.
Synthetic Black Iron Oxide (Group III)

3. Composition/Information on ingredients

Mixtures

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>C.I. Pigment Black 11 (Group III)</td>
<td>99.0%</td>
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</tbody>
</table>

CAS number: 1317-61-9  
REACH registration number: Proprietary

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
If exposed to excessive levels of dust or fumes, remove to fresh air. Get medical attention if cough or other symptoms develop.

Ingestion
Rinse mouth thoroughly with water. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed by medical personnel. Get medical attention if symptoms occur.

Skin Contact
Wash with soap and water. Get medical attention if irritation develops or persists.

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

5. Fire-fighting measures

Extinguishing media

The product is not flammable. Use fire-extinguishing media suitable for the surrounding fire. Extinguish with the following media: Water spray, foam, dry powder or carbon dioxide.

Special hazards arising from the substance or mixture

Flammability Class
No Uniform Fire Code noted.

Advice for firefighters

Protective actions during firefighting
As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

Special protective equipment for firefighters
Wear self-contained breathing apparatus as combustion may produce hazardous fumes.

6. Accidental release measures

Methods and material for containment and cleaning up

Methods for cleaning up
If dust is generated, use appropriate respiratory protection. Vacuum or sweep up material and place in a disposal container. Avoid generation and spreading of dust. Large Spillages: Wear suitable protective equipment, including gloves, goggles/face shield, respirator, boots, clothing or apron, as appropriate. Collect and place in suitable waste disposal containers and seal securely. Label the containers containing waste and contaminated materials and remove from the area as soon as possible. Flush contaminated area with plenty of water. Avoid runoff into storm sewers and ditches which lead to waterways.

7. Handling and storage

Precautions for safe handling

Usage precautions
Minimize dust generation and accumulation. Do not breathe dust. Avoid contact with skin and eyes. Wash contaminated skin thoroughly after handling.
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Conditions for safe storage, including any incompatibilities

Storage precautions
Store dry at ambient temperature away from food and beverages, excessive heat or flame sources (furnace, kilns, boilers etc.). Store away from substances subject to catalytic decomposition by dust, e.g. peroxides

8. Exposure Controls/personal protection

Ingredient comments
Although no exposure limit has been established by OSHA for this product, the limit for nuisance particulates should be followed: OSHA 8-hr TWA 10mg/m3 Total Dust 5 mg/m3 respirable dust. ACGIH TLV-TWA 10mg/m3 Total dust or 5mg/m3 respirable dust.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

Appearance
Dusty powder.

Color
Black.

Odor
Odorless.

Odor threshold
Not available.

Melting point
> 1000 deg C / 1832 deg F

Initial boiling point and range
Not available.

Flash point
Not available.

Evaporation rate
Not available.

Evaporation factor
Not available.

Flammability (solid, gas)
Not available.

Upper/lower flammability or explosive limits
Not available.

Other flammability
Not available.

Vapour pressure
Not available.

Vapour density
Not available.

Relative density
Not available.

Bulk density
Not available.

Solubility(ies)
Insoluble in water.

Partition coefficient
Not available.

Auto-ignition temperature
Not available.

Decomposition Temperature
Not available.

Viscosity
Not available.

Explosive properties
Not available.

Volatile organic compound
None.

10. Stability and reactivity
Synthetic Black Iron Oxide (Group III)

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).

Materials to avoid
Substances subject to catalytic decomposition caused by dust such as peroxides. Further avoid contact with aluminum dust, calcium hypochlorite, hydrazine, ethylene oxide, caesium carbide.

11. Toxicological information

Information on toxicological effects

Toxicological effects
No specific toxicity tests have been carried out on this product.

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

Ingestion
No harmful effects expected from quantities likely to be ingested by accident.

Skin Contact
Substance may cause slight skin irritation.

Eye contact
May cause slight irritation.

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
Bioaccumulation is unlikely to be significant because of the low water-solubility of this product.

Partition coefficient
Not available.

Mobility in soil
The product is insoluble in water.

Other adverse effects
None known.

13. Disposal considerations

Waste treatment methods
General information
Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

14. Transport information

General
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).

UN Number
UN No. (DOT) 3190
UN No. (IMDG) 3190
Synthetic Black Iron Oxide (Group III)

UN No. (ICAO) 3190

UN proper shipping name
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)
DOT hazard class 4.2
DOT hazard label Spontaneously Combustible
IMDG Class 4.2
ICAO class/division 4.2

Transport labels

Packing group
DOT pack group III
IMDG packing group III
ICAO packing group III

Environmental hazards
Environmentally Hazardous Substance No.

Special precautions for user
EmS F-A, S-J

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

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
Synthetic Black Iron Oxide (Group III)

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.

Massachusetts "Right To Know" List

C.I. Pigment Black 11 (Group III)
Not listed.

Rhode Island "Right To Know" List

C.I. Pigment Black 11 (Group III)
Not listed.

Minnesota "Right To Know" List

C.I. Pigment Black 11 (Group III)
Not listed.

New Jersey "Right To Know" List

C.I. Pigment Black 11 (Group III)
Not listed.

Pennsylvania "Right To Know" List

C.I. Pigment Black 11 (Group III)
Not listed.

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.

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
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All the ingredients are listed or exempt.

16. Other information

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<th>Description</th>
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<td>H252 Self-heating in large quantities; may catch fire.</td>
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