SAFETY DATA SHEET
Synthetic Black Iron Oxide (Group II)

1. Identification

Product identifier

Product name Synthetic Black Iron Oxide (Group II)

Product number 845,846,847,848,850,867,BLK,BLKSL

Synonyms; trade names Mapico Black Iron Oxide

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. 1 - H251

Health hazards Not Classified

Environmental hazards Not Classified

Label elements

Pictogram

Signal word Danger

Hazard statements H251 Self-heating: 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.

3. Composition/information on ingredients

Mixtures

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C.I. Pigment Black 11 (Group II)	99.0%
CAS number: 1317-61-9	REACH registration number: Proprietary

Classification
Self-heat. 1 - H251

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

Composition comments Black Iron Oxide, Fe3O4 / C.I. Pigment Black 11 : Alternative CAS No. 12227-89-3, Alternative EINECS No. 235-442-5

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

Suitable 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.

Specific hazards Exposure to heat greater than 55C (130F) may cause this product to oxidize which can generate more heat. This heat may be sufficient to cause the product packaging or nearby combustible materials to ignite. The product may be quenched with water to stop the oxidation.

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

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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.

Conditions for safe storage, including any incompatibilities

Storage precautions Store at temperatures not exceeding 55°C/130°F. 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

Control parameters

Occupational exposure limits

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.

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.
pH	pH (diluted solution): 6-10 @ 10% suspension
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.

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Auto-ignition temperature	Not available.
Decomposition Temperature	> 55°C
Viscosity	Not available.
Explosive properties	Not available.
Volatile organic compound	None.

10. Stability and reactivity

Stability	Exposure to heat greater than 55C (130F) 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	From literature surveys undertaken re Iron oxides: LD50: > 5000 mg/kg, oral, rat Eyes: Non-irritant, rabbit Skin (24 hrs): Non-irritant, rabbit
Other health effects	This substance is not classifiable as a human carcinogen.
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.

Persistance and degradability

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.
Partition coefficient	Not available.

Mobility in soil

Mobility	The product is insoluble in water.

Results of PBT and vPvB assessment

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

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Other adverse effects

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

UN Number

UN No. (DOT) UN3190

UN No. (IMDG) 3190

UN No. (ICAO) 3190

UN proper shipping name

Proper shipping name (DOT) SELF-HEATING SOLID, INORGANIC, N.O.S.

Proper shipping name (IMDG) SELF-HEATING SOLID, INORGANIC, N.O.S.

Proper shipping name (ICAO) SELF-HEATING SOLID, INORGANIC, N.O.S.

Transport hazard class(es)

DOT hazard class 4.2

DOT hazard label Spontaneously Combustible

TDG class 4.2

TDG label 4.2

IMDG Class 4.2

IMDG subsidiary risk

ICAO class/division 4.2

ICAO subsidiary risk

Transport labels

Packing group

DOT pack group II

IMDG packing group II

ICAO packing group II

Special precautions for user

EmS F-A, S-J

15. Regulatory information

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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

Yes

US - TSCA 12(b) Export Notification

No.

Australia - AICS

Yes

Japan - MITI

Yes

Korea - KECI

Yes

China - IECSC

Yes

Philippines - PICCS

Yes

New Zealand - NZIOC

Yes

16. Other information

Revision date	6/3/2015
Revision	6
Supersedes date	3/23/2015
SDS No.	18538
SDS status	Approved.
Hazard statements in full	H251 Self-heating: may catch fire.

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.