

SAFETY DATA SHEET

SECTION 1. IDENTIFICATION

Product Name : Black Oxide BK555

Material Number : 2412745

Manufacturer or Supplier's details

Company : Clarke Colors LLC
331 Somerset Lane, STE 77
Marietta GA 30067
USA
For information ; USA/Canada/International
404-964-0003

Emergency telephone : Chemtel (800) 255-3924 or
International (813) 248-0585

Recommended use : Industrial Use

SECTION 2. HAZARDS IDENTIFICATION

GHS classification in accordance with the OSHA Hazard Communication Standard (29 CFR 1910.1200).

II Not a hazardous substance or mixture

GHS Label Elements

II Not a hazardous substance or mixture

Other Hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Chemical nature : Inorganic Pigment

Hazardous components

<u>Chemical Name</u>	<u>CAS-No.</u>	<u>Concentration</u>
Fe-Mn Spinel Black	68186-94-7	>= 93 - <=100

SECTION 4. FIRST AID MEASURES

Description of first aid measures

- Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for a remove contact lenses. Get medical attention if irritation occurs.
- Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms continue.
- Skin Contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes.
- Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep in a position comfortable for breathing. Get medical attention if symptoms occur.

Potential acute health effects

- Eye contact** : May cause mechanical irritation (abrasion)
- Inhalation** : No known significant effects or critical hazards
- Skin Contact** : May cause mechanical irritation (abrasion)

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing media

- Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. In case of fire use water, foam, dry chemical, Co2 or sand can also be used.
- Unsuitable extinguishing media** : Do not use a solid water stream as it may scatter and spread fire
- Specific hazards during fire fighting** : Do not allow run-off from fire fighting to enter drains or water streams
- Hazardous thermal decomposition products** : The product itself does not burn
- Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
- Further information** : Standard procedure for chemical fires. Promptly isolate the scene by removing all persons from the vicinity if there is a fire.
Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations and guidelines.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal Precautions, Protective equipment and Emergency procedures** : Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment, See also Section 8. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Avoid breathing dust. Put on appropriate personal protective equipment.

- Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has not been contained.
- Methods and materials for containment and cleaning up** : If the spilled material contains dust, approach from upwind and use vacuum with HEPA filtration filters
Dry sweeping is not recommended. Wet sand can be used and product disposed of in a sealed container.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling

- Protective measures** : Avoid breathing dust. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands before eating or drinking. Eating, drinking and smoking should be prohibited in areas where this material is handled and stored and processed.
- Conditions for safe storage** : Keep in a dry, cool and well ventilated place.

SECTION 8. Exposure controls/personal protection

- Appropriate engineering controls** : Use only with adequate ventilation. Apply technical measures to comply with occupational exposure limits.
- Personal protection**
Hygiene measures : Wash hands, forearms and face thoroughly after handling chemical products and before eating. Appropriate techniques should be used to remove potentially contaminated clothing. Ensure that eyewash stations are close to the workstation location.
- Respiratory protection** : Although no exposure limit has been established for this product, the OSHA PEL for Particulates NOT Otherwise Regulated (PNOR) of 5 mg/m³ – total dust, 5 mg/m³ respirable fraction is recommended. In addition, the ACGIH recommends 0.2 mg/m³ – respirable particles and 0.2 mg/m³ – inhalable particles for Particles (insoluble or poorly soluble) Not Otherwise Specified (PNOS). The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. Dust-protection mask if there is a risk of dust formation. NIOSH approved air-purifying particulate respirator with N100 filters.
- Skin protection** : Wear suitable protective clothing and gloves

SECTION 9. Physical and Chemical Properties

- Appearance** : Powder
- Physical State** : Solid
- Color** : Black
- Carbon content** : Trace. Effectively ZERO
- Odor** : Odorless
- Odor Threshold** : Not available
- pH** : 4 – 8 Concentration : 5 %

Melting point/range	: > 1,875 oF / > 1,000 oC
Boiling point	: No data available
Flash point	: No data available
Evaporation rate	: No data available
Self-ignition	: No data available
Upper explosion limit	: No data available
Upper flammability limit	: No data available
Vapor pressure	: Not applicable
Density	: 4.2 – 5.2 g/cm ³
Bulk density	: No data available
Water Soluble	: Insoluble
Solubility in other solvents	: No data available
Auto-ignition temperature	: Not determined
Decomposition temperature	: No data available
VOC content	: Not applicable
Oxidizing properties	: Not applicable

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489)

SECTION 10. Stability and Reactivity

Chemical stability	: The product is chemically stable
Reactivity	: No specific test data related to reactivity available for this product or its ingredients
Possibility of hazardous reaction	: No dangerous reaction known under conditions of normal use
Conditions to avoid	: Incompatible materials
Incompatible materials	: Incompatible with oxidizing agents and strong acids.
Hazardous decomposition products	: No decomposition if stored and used as directed

SECTION 11. Toxicological information

Information on the likely routes of exposure : Inhalation , eye contact , skin contact, Ingestion

Potential acute health effects

Eye contact	: May cause mechanical irritation (abrasion)
Inhalation	: No known significant effects or critical hazards
Skin contact	: May cause mechanical irritation (abrasion)
Ingestion	: No known significant effects or critical hazards

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	: No specific data
Inhalation	: No specific data
Skin contact	: No specific data
Ingestion	: No specific data

Acute toxicity
Not classified based on available information

Skin corrosion/irritation
Not classified based on available information

Serious eye damage/eye irritation
Not classified based on available information

Skin sensitization
Not classified based on available information

Respiratory sensitization
Not classified based on available information

Germ cell mutagenicity
Not classified based on available information

Carcinogenicity
Not classified based on available information

IARC No component of this product present at levels greater than or equal to 0.1 % is identified as probable, possible or confirmed human carcinogen by IARC.

OSHA No component of this product present at levels greater than or equal to 0.1 % is on OSHA's list of regulated carcinogens.

NTP No ingredient of this product present at levels greater than or equal to 0.1 % is identified as a known or anticipated carcinogen by NTP.

Reproductive toxicity
Not classified based on available information

STOT-single exposure
Not classified based on available information

STOT-repeated exposure
Not classified based on available information

Aspiration toxicity
Not classified based on available information

SECTION 12. Ecological Information

Ecotoxicity
This product has no known ecotoxicological effects.

Persistence and degradability
No data available

Bioaccumulative potential
No data available

Mobility in soil
No data available

Other adverse effects

Product

Ozone-Depletion Potential

: Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone – CAA Section 602 Class 1 Substances. Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 40 CFR 82, Subpt.A, App.A+B

SECTION 13. Disposal Considerations

Disposal methods

Waste from residues

: The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Empty containers retain product residue; observe all precautions for product. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal, state, provincial and/or local environmental controls.

SECTION 14. Transport Information

International Regulations

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied

National Regulations

49 CFR

Not regulated as a dangerous good

Hazard and handling Notes

Not dangerous cargo. Has a slight odor. Keep separated from foodstuffs

SECTION 15. Regulatory information

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ

SARA 304 Extremely Hazardous Substances Threshold Planning Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : No SARA Hazards

SARA 313 : This product contains components that are reportable under the regulation.
Manganese Compounds

US State Regulations

Massachusetts Right To Know

No components are subject to the Massachusetts right to Know Act

Pennsylvania Right To Know

This product contains components that are reportable under the regulation

California Prop. 65

This product does not contain any chemicals known to the State of California to cause cancer, birth or any other reproductive defects.

The components of this product are reported in the following inventories:

TSCA (United States) : On TSCA Inventory

DSL/NDSL (Canada) : All components of this product are on the Canadian DSL

AICS (Australia) : On the inventory or in compliance with the inventory

NzioC (New Zealand) : On the inventory or in compliance with the inventory

EINECS (European Union) : On the inventory or in compliance with the inventory

ENCS (Japan) : On the inventory or in compliance with the inventory

KECA (Korea) : On the inventory or in compliance with the inventory

PICCS (Philippines) : On the inventory or in compliance with the inventory

IECSC (China) : On the inventory or in compliance with the inventory

TCSI (Taiwan) : On the inventory or in compliance with the inventory

INSQ (Mexico) : On the inventory or in compliance with the inventory

SVVISS (Switzerland) : On the inventory or in compliance with the inventory

SECTION 16. Other Information

Hazardous Material Information System

Health 1
 Flammability 0
 Physical Hazards 0

0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme

Further information

NFPA 704 :



HMIS IV :



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