

SAFETY DATA SHEET

According to OSHA Hazard Communication Standard 29CFR 1910.1200
(HCS 2012)

1429004		SS Emerald DRY Pak 4.5 LB	
Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 1 of 11

SECTION 1. IDENTIFICATION

Product name : **1429004**
SS Emerald DRY Pak 4.5 LB

Material number : **1429004**

Manufacturer or supplier's details

Company name of supplier : Ferro Corporation

Address : 6060 Parkland Blvd. Suite 250
Mayfield Heights OH 44124-4185

Telephone : (216) 875-5600

Emergency telephone number

In-Country Number : (800)424-9300

CHEMTREC Global Number : +(1)-703-527-3887 (Call Collect)

Recommended use of the chemical and restrictions on use

Recommended use : Consult the technical guidelines for the use of this
substance/mixture.

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Carcinogenicity : Category 2

GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H351 Suspected of causing cancer.

Precautionary statements : **Prevention:**
P201 Obtain special instructions before
use.
P202 Do not handle until all safety
precautions have been read and
understood.
P280 Wear protective gloves/ protective
clothing/ eye protection/ face

SAFETY DATA SHEET



According to OSHA Hazard Communication Standard 29CFR 1910.1200 (HCS 2012)

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Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 2 of 11

Response:
P308 + P313 protection.
IF exposed or concerned: Get medical advice/ attention.

Disposal:
P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards
None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : metal oxide/hydroxide, inorganic pigment, organic dye

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
dichromium trioxide	1308-38-9	>= 50 - < 70
carbon black	1333-86-4	>= 10 - < 20
C.I. Pigment Green 7	1328-53-6	>= 10 - < 20
C.I. Pigment Blue 15	147-14-8	>= 1 - < 5

SECTION 4. FIRST AID MEASURES

General advice : Consult a physician.

If inhaled : Remove to fresh air.
If symptoms persist, call a physician.

In case of skin contact : If skin irritation persists, call a physician.

In case of eye contact : Rinse immediately with plenty of water and seek medical advice.

If swallowed : If accidentally swallowed obtain immediate medical attention.

Most important symptoms and effects, both acute and delayed : Suspected of causing cancer.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

SAFETY DATA SHEET



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Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 3 of 11

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Follow safe handling advice and personal protective equipment recommendations.

Environmental precautions : Do not allow uncontrolled discharge of product into the environment.

Methods and materials for containment and cleaning up : Sweep up and shovel into suitable containers for disposal. Clean contaminated floors and objects thoroughly while observing environmental regulations.

SECTION 7. HANDLING AND STORAGE

Advice on safe handling : Avoid inhalation, ingestion and contact with skin and eyes.

Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

Components	CAS-No.	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
dichromium trioxide	1308-38-9	TWA	0.5 mg/m3 (chromium)	OSHA Z-1
		TWA	0.5 mg/m3 (chromium)	ACGIH
		TWA	1 mg/m3	OSHA P0
		TWA	0.5 mg/m3 (chromium)	NIOSH REL
		TWA	1 mg/m3 (chromium)	OSHA Z-1
carbon black	1333-86-4	TWA	3.5 mg/m3	NIOSH REL
		TWA	3.5 mg/m3	OSHA Z-1
		TWA	3.5 mg/m3	OSHA P0
		TWA	0.1 mg/m3 (PAHs)	NIOSH REL

SAFETY DATA SHEET



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1429004		SS Emerald DRY Pak 4.5 LB	
Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 4 of 11

		TWA (Inhalable fraction)	3 mg/m3	ACGIH
C.I. Pigment Green 7	1328-53-6	TWA	1 mg/m3 (Copper)	NIOSH REL
C.I. Pigment Blue 15	147-14-8	TWA	1 mg/m3 (Copper)	NIOSH REL

Engineering measures : Apply technical measures to comply with the occupational exposure limits.
Provide adequate ventilation.

Personal protective equipment

Respiratory protection : When workers are facing concentrations above the exposure limit they must use appropriate certified respirators.

Hand protection : For prolonged or repeated contact use protective gloves.

Eye protection : Safety glasses

Protective measures : Wear suitable protective equipment.
When using do not eat, drink or smoke.

Hygiene measures : Wash hands before breaks and immediately after handling the product.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

- Appearance : powder
- Colour : green
- Odour : odourless
- Odour Threshold : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : No data available
- Flash point : Not applicable
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Relative vapour density : No data available

SAFETY DATA SHEET



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Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 5 of 11

Solubility(ies)	
Water solubility	: insoluble
Auto-ignition temperature	: Not determined
Oxidizing properties	: No data available
Refractive index	: Not applicable
Volatile organic compounds (VOC) content	: 0 %

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

This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: No dangerous reaction known under conditions of normal use.
Chemical stability	: The product is chemically stable.

SECTION 11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

inhalation (dust/mist/fume)

Skin

Eye contact

Acute toxicity

Not classified based on available information.

Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg
Method: Calculation method

Components:

dichromium trioxide:

Acute oral toxicity : LD50 (Rat, male and female): 5,000 mg/kg
Method: OECD Test Guideline 401
GLP: yes
Assessment: The substance or mixture has no acute oral toxicity

carbon black:

Acute oral toxicity : LD50 Oral (Rat): > 15,400 mg/kg

C.I. Pigment Green 7:

SAFETY DATA SHEET



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Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 6 of 11

Acute oral toxicity : LD50 Oral (Rat): > 5,000 mg/kg

Acute dermal toxicity : LD50 (Rat, male): > 5,000 mg/kg

C.I. Pigment Blue 15:

Acute oral toxicity : LD50 Oral (Rat): > 10,000 mg/kg

Skin corrosion/irritation

Not classified based on available information.

Components:

dichromium trioxide:

Species: Rabbit
Exposure time: 24 h
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: no

Serious eye damage/eye irritation

Not classified based on available information.

Respiratory or skin sensitisation

Skin sensitisation: Not classified based on available information.
Respiratory sensitisation: Not classified based on available information.

Germ cell mutagenicity

Not classified based on available information.

Carcinogenicity

Suspected of causing cancer.

IARC Group 2B: Possibly carcinogenic to humans

carbon black 1333-86-4

OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

NTP No component 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 Specific Target Organ Toxicity - single exposure

Not classified based on available information.

STOT Specific Target Organ Toxicity - repeated exposure

Not classified based on available information.

SAFETY DATA SHEET



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1429004		SS Emerald DRY Pak 4.5 LB	
Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 7 of 11

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

dichromium trioxide:

Toxicity to fish : LC50 (Danio rerio (zebra fish)): > 10,000 mg/l
Exposure time: 96 h
Test Type: static test
Method: ISO 7346/1
GLP: yes

C.I. Pigment Green 7:

Toxicity to fish : LC50 (Lepomis macrochirus (Bluegill sunfish)): 752.4 mg/l
Exposure time: 96 h

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia (water flea)): 500 mg/l
Exposure time: 48 h

Persistence and degradability

Components:

dichromium trioxide:

Biodegradability : Remarks: No data available

carbon black:

Biodegradability : Remarks: No data available

C.I. Pigment Green 7:

Biodegradability : Remarks: No data available

C.I. Pigment Blue 15:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Components:

dichromium trioxide:

Bioaccumulation : Remarks: No data available

carbon black:

Bioaccumulation : Remarks: No data available

C.I. Pigment Green 7:

Bioaccumulation : Remarks: No data available

C.I. Pigment Blue 15:

SAFETY DATA SHEET



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1429004		SS Emerald DRY Pak 4.5 LB	
Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 8 of 11

Bioaccumulation : Remarks: No data available

Partition coefficient: n-octanol/water : Pow: 6.6 (25 °C)

Mobility in soil

Components:

dichromium trioxide:

Distribution among environmental compartments : Remarks: No data available

carbon black:

Distribution among environmental compartments : Remarks: No data available

C.I. Pigment Green 7:

Distribution among environmental compartments : Remarks: No data available

C.I. Pigment Blue 15:

Distribution among environmental compartments : Remarks: 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 I 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 : Dispose of wastes in an approved waste disposal facility.

SECTION 14. TRANSPORT INFORMATION

IATA-DGR

Not regulated as a dangerous good

IMDG-Code

Not regulated as a dangerous good

SAFETY DATA SHEET



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Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 9 of 11

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

SECTION 15. REGULATORY INFORMATION

TSCA list : TSCA_12b - Not relevant

TSCA list : TSCA 5a - Not relevant

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

This material does not contain any components with a CERCLA RQ.

SARA 304 Extremely Hazardous Substances Reportable Quantity

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

SARA 311/312 Hazards : Chronic Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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

Chromium III Compounds

Clean Air Act

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).

This product contains components that are reportable under the regulation.

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

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

Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product contains components that are reportable under the regulation.

Massachusetts Right To Know

SAFETY DATA SHEET



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Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 10 of 11

This product contains components that are reportable under the regulation.

Pennsylvania Right To Know

This product contains components that are reportable under the regulation.

New Jersey Right To Know

This product contains components that are reportable under the regulation.

California Prop 65

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

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

- EINECS (European Union) : On the inventory, or in compliance with the inventory
- SWISS (Switzerland) : On the inventory, or in compliance with the inventory
- 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
- ENCS (Japan) : On the inventory, or in compliance with the inventory
- ISHL (Japan) : On the inventory, or in compliance with the inventory
- KECI (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
- CICR (Turkey) : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

Revision Date : 06/18/2019

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

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Product specification	RS_FP_606021	Revision Date	06/18/2019
Version	1.0	Print Date	06/19/2019
Material number	1429004	Page	Page 11 of 11

is not to be considered a warranty or quality specification. The 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, unless specified in the text.

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