

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	RS_FP_600503	Revision Date	07/08/2015
Version	1	Print Date	03/15/2016
Material number	1133438	Page	Page 1 of 9

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**SECTION 1. IDENTIFICATION**

Product name : 41172A Green Spersastain DRM100LB  
000000000001133438

Product code : RS\_FP\_600503

**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

Disposal considerations : Dispose of wastes in an approved waste disposal facility.

**Emergency telephone number**

CHEMTREC In-Country : (800)424-9300  
Number

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

**Recommended use of the chemical and restrictions on use**

Recommended use : Industrial use

Restrictions on use : Reserved for industrial and professional use.

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**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.  
P281 Use personal protective equipment as required.  
**Response:**  
P308 + P313 IF exposed or concerned: Get medical advice/attention.

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	RS_FP_600503	Revision Date	07/08/2015
Version	1	Print Date	03/15/2016
Material number	1133438	Page	Page 2 of 9

**Disposal:**

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

**Other hazards**

None known.

**SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS****Hazardous components**

Chemical Name	CAS-No.	Concentration (%)
Co-Cr-Al spinel blue green	68187-11-1	>= 90 - <= 100
Amorphous Silica	112945-52-5	>= 1 - < 5

**SECTION 4. FIRST AID MEASURES**

General advice	: Consult a physician.
If inhaled	: Remove to fresh air. If unconscious place in recovery position and seek medical advice. Never give anything by mouth to an unconscious person.
In case of skin contact	: Wash off immediately with soap and plenty of water. If a person feels unwell or symptoms of skin irritation appear, consult a physician.
In case of eye contact	: Rinse immediately with plenty of water and seek medical advice.
If swallowed	: Do NOT induce vomiting. Rinse immediately with plenty of water and seek medical advice.
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.
Unsuitable extinguishing media	: Do not use a solid water stream as it may scatter and spread fire.
Specific hazards during firefighting	: Exposure to decomposition products may be a hazard to health. Do not allow run-off from fire fighting to enter drains or water courses.

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	<b>RS_FP_600503</b>	Revision Date	<b>07/08/2015</b>
Version	<b>1</b>	Print Date	03/15/2016
Material number	<b>1133438</b>	Page	Page 3 of 9

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

## SECTION 6. ACCIDENTAL RELEASE MEASURES

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

Environmental precautions : Do not flush into surface water or sanitary sewer system. Prevent product from entering drains.

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 : Do not get in eyes or mouth or on skin. For personal protection see section 8. Smoking, eating and drinking should be prohibited in the application area. Do not use in areas without adequate ventilation. Keep away from heat and sources of ignition.

Conditions for safe storage : Keep in a dry, cool 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
Co-Cr-Al spinel blue green	68187-11-1	TWA	0.5 mg/m <sup>3</sup> (chromium)	OSHA Z-1
		TWA	0.02 mg/m <sup>3</sup> (Cobalt)	ACGIH
		TWA	0.5 mg/m <sup>3</sup> (chromium)	NIOSH REL
		TWA	0.5 mg/m <sup>3</sup> (chromium)	ACGIH
Amorphous Silica	112945-52-5	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m <sup>3</sup> / %SiO <sub>2</sub> (Silica)	OSHA Z-3
		TWA	6 mg/m <sup>3</sup>	NIOSH REL

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	<b>RS_FP_600503</b>	Revision Date	<b>07/08/2015</b>
Version	<b>1</b>	Print Date	03/15/2016
Material number	<b>1133438</b>	Page	Page 4 of 9

			(Silica)	
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**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  
Material : Protective gloves

Eye protection : Safety glasses with side-shields  
Ensure that eyewash stations and safety showers are close to the workstation location.

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

Hygiene measures : Remove contaminated clothing and protective equipment before entering eating areas.  
Wash hands before breaks and immediately after handling the product.

**SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Appearance : powder

Colour : coloured

Odour : characteristic

Odour Threshold : No data available

pH : No data available

Melting point/range : No data available

Boiling point/boiling range : No data available

Flash point : No data available

Evaporation rate : Not applicable

Upper explosion limit : No data available

Lower explosion limit : No data available

Vapour pressure : No data available

Relative vapour density : No data available

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	<b>RS_FP_600503</b>	Revision Date	<b>07/08/2015</b>
Version	<b>1</b>	Print Date	03/15/2016
Material number	<b>1133438</b>	Page	Page 5 of 9

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Relative density	:	No data available
Bulk density	:	No data available
Solubility(ies)	:	
Water solubility	:	No data available
Partition coefficient: n-octanol/water	:	No data available
Auto-ignition temperature	:	not determined
Thermal decomposition	:	No data available
Viscosity	:	
Viscosity, kinematic	:	No data available

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#### SECTION 10. STABILITY AND REACTIVITY

Reactivity	:	No data available
Chemical stability	:	No data available
Possibility of hazardous reactions	:	No data available
Conditions to avoid	:	Incompatible materials
Incompatible materials	:	Incompatible with oxidizing agents. Incompatible with strong acids and bases.

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#### SECTION 11. TOXICOLOGICAL INFORMATION

##### Information on likely routes of exposure

inhalation (dust/mist/fume)

inhalation (vapour)

Skin

Eye contact

Ingestion

##### Acute toxicity

Not classified based on available information.

##### Product:

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

##### Components:

##### **Amorphous Silica:**

Acute oral toxicity : LD50 Oral (Rat): 3,160 mg/kg

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	RS_FP_600503	Revision Date	07/08/2015
Version	1	Print Date	03/15/2016
Material number	1133438	Page	Page 6 of 9

**Skin corrosion/irritation**

Not classified based on available information.

**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

Co-Cr-Al spinel blue green 68187-11-1

**ACGIH**

Confirmed animal carcinogen with unknown relevance to humans

Co-Cr-Al spinel blue green 68187-11-1

**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 - 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****Components:****Co-Cr-Al spinel blue green:**

Toxicity to fish : LC50 (Fish): 1,000 mg/l  
Exposure time: 96 h

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 10,000 mg/l

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
Product specification	RS_FP_600503	Revision Date	07/08/2015
Version	1	Print Date	03/15/2016
Material number	1133438	Page	Page 7 of 9

aquatic invertebrates Exposure time: 48 h

#### **Persistence and degradability**

##### **Components:**

##### **Co-Cr-Al spinel blue green:**

Biodegradability : Remarks: No data available

##### **Amorphous Silica:**

Biodegradability : Remarks: No data available

#### **Bioaccumulative potential**

##### **Components:**

##### **Co-Cr-Al spinel blue green:**

Bioaccumulation : Remarks: No data available

##### **Amorphous Silica:**

Bioaccumulation : Remarks: No data available

#### **Mobility in soil**

##### **Components:**

##### **Co-Cr-Al spinel blue green:**

Distribution among environmental compartments : Remarks: No data available

##### **Amorphous Silica:**

Distribution among environmental compartments : Remarks: No data available

#### **Other adverse effects**

No data available

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### **SECTION 13. DISPOSAL CONSIDERATIONS**

#### **Disposal methods**

Waste from residues : Dispose of wastes in an approved waste disposal facility.

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### **SECTION 14. TRANSPORT INFORMATION**

#### **International Regulation**

##### **UNRTDG**

Not regulated as a dangerous good

##### **IATA-DGR**

Not regulated as a dangerous good

##### **IMDG-Code**

Not regulated as a dangerous good

<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
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Version	<b>1</b>	Print Date	03/15/2016
Material number	<b>1133438</b>	Page	Page 8 of 9

**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 DOT**

Not regulated as a hazardous material

**SECTION 15. REGULATORY INFORMATION**

**TSCA list** : TSCA 5a - Not relevant  
TSCA\_12b - Not relevant

**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** : The following components are subject to reporting levels established by SARA Title III, Section 313:

Co-Cr-Al spinel blue green 68187-11-1

**Massachusetts Right To Know**

No components are subject to the Massachusetts Right to Know Act.

**Pennsylvania Right To Know**

Co-Cr-Al spinel blue green 68187-11-1

**New Jersey Right To Know**

Co-Cr-Al spinel blue green 68187-11-1  
Amorphous Silica 112945-52-5

**California Prop 65**

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

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

**REACH** : This mixture contains only ingredients which have been subject to a pre-registration according to Regulation (EC) No. 1907/2006 (REACH).

**CH INV** : Not in compliance with the inventory

: Amorphous Silica

**TSCA** : Not On TSCA Inventory

: Amorphous Silica

**DSL** : All components of this product are on the Canadian DSL.



<b>1133438</b>		<b>41172A Green Spersastain DRM100LB</b>	
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Version	<b>1</b>	Print Date	03/15/2016
Material number	<b>1133438</b>	Page	Page 9 of 9

AICS	: On the inventory, or in compliance with the inventory
NZIoC	: On the inventory, or in compliance with the inventory
ENCS	: Not in compliance with the inventory : Amorphous Silica
ISHL	: Not in compliance with the inventory : Amorphous Silica
KECI	: On the inventory, or in compliance with the inventory
PICCS	: On the inventory, or in compliance with the inventory
IECSC	: On the inventory, or in compliance with the inventory
TW INV	: Not in compliance with the inventory : Amorphous Silica : Co-Cr-Al spinel blue green
MY INV	: Not in compliance with the inventory : Amorphous Silica : Co-Cr-Al spinel blue green
TR INV	: Not in compliance with the inventory : Amorphous Silica : Co-Cr-Al spinel blue green

### Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECI (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA), CH INV (Switzerland), MY INV (Malaysia), TR INV (Turkey), TW INV (Taiwan)

## SECTION 16. OTHER INFORMATION

Revision Date : 07/08/2015

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 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.