

<b>1133477</b>		<b>41719A Yellow Spersastain</b>	<b>DRM100LB</b>
Product specification	<b>RS_FP_600513</b>	Revision Date	<b>06/02/2015</b>
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**SECTION 1. IDENTIFICATION**

Product name : 41719A Yellow Spersastain DRM100LB  
00000000001133477

Product code : RS\_FP\_600513

**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.

**SECTION 2. HAZARDS IDENTIFICATION****GHS Classification**

Not a hazardous substance or mixture.

**GHS Label element**

Not a hazardous substance or mixture.

**Other hazards**

None known.

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

Chemical Name	CAS-No.	Concentration (%)
Zr-V baddeleyite yellow	68187-01-9	>= 70 - < 90
Zr-Pr zircon yellow	68187-15-5	>= 10 - < 20
Amorphous Silica	112945-52-5	>= 1 - < 5

**SECTION 4. FIRST AID MEASURES**

General advice : Consult a physician.

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- 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.

#### 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.
- 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 : 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.

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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
Zr-V baddeleyite yellow	68187-01-9	TWA	5 mg/m <sup>3</sup> (Zirconium)	OSHA Z-1
		TWA	5 mg/m <sup>3</sup> (Zirconium)	ACGIH
		STEL	10 mg/m <sup>3</sup> (Zirconium)	ACGIH
		TWA	5 mg/m <sup>3</sup> (Zirconium)	OSHA P0
		STEL	10 mg/m <sup>3</sup> (Zirconium)	OSHA P0
		C (Dust)	0.05 mg/m <sup>3</sup> (Vanadium)	NIOSH REL
		TWA	5 mg/m <sup>3</sup> (Zirconium)	NIOSH REL
		ST	10 mg/m <sup>3</sup> (Zirconium)	NIOSH REL
		C (Fumes)	0.05 mg/m <sup>3</sup> (Vanadium)	NIOSH REL
Zr-Pr zircon yellow	68187-15-5	TWA	5 mg/m <sup>3</sup> (Zirconium)	OSHA Z-1
		TWA	5 mg/m <sup>3</sup> (Zirconium)	ACGIH
		STEL	10 mg/m <sup>3</sup> (Zirconium)	ACGIH
		TWA	5 mg/m <sup>3</sup> (Zirconium)	OSHA P0
		STEL	10 mg/m <sup>3</sup> (Zirconium)	OSHA P0
		TWA	5 mg/m <sup>3</sup> (Zirconium)	NIOSH REL
		ST	10 mg/m <sup>3</sup> (Zirconium)	NIOSH REL
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

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			(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.  
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

Relative density : No data available

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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

## 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.

## 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

### Skin corrosion/irritation

Not classified based on available information.

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**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**

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.

**ACGIH**

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

**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.

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**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

No data available

**Persistence and degradability****Components:****Zr-V baddeleyite yellow:**

Biodegradability : Remarks: No data available

**Zr-Pr zircon yellow:**

Biodegradability : Remarks: No data available

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**Amorphous Silica:**

Biodegradability : Remarks: No data available

**Bioaccumulative potential****Components:****Zr-V baddeleyite yellow:**

Bioaccumulation : Remarks: No data available

**Zr-Pr zircon yellow:**

Bioaccumulation : Remarks: No data available

**Amorphous Silica:**

Bioaccumulation : Remarks: No data available

**Mobility in soil****Components:****Zr-V baddeleyite yellow:**

Distribution among environmental compartments : Remarks: No data available

**Zr-Pr zircon yellow:**

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

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**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** : No SARA Hazards

**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:

Zr-V baddeleyite yellow 68187-01-9

**Massachusetts Right To Know**

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

**Pennsylvania Right To Know**

Zr-V baddeleyite yellow 68187-01-9  
Zr-Pr zircon yellow 68187-15-5

**New Jersey Right To Know**

Zr-V baddeleyite yellow 68187-01-9  
Zr-Pr zircon yellow 68187-15-5  
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 : On the inventory, or in compliance with the inventory

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.



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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
	: Zr-V baddeleyite yellow
	: Zr-Pr zircon yellow
ISHL	: Not in compliance with the inventory
	: Amorphous Silica
	: Zr-V baddeleyite yellow
	: Zr-Pr zircon yellow
KECI	: Not in compliance with the inventory
	: Zr-V baddeleyite yellow
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
	: Zr-V baddeleyite yellow
	: Zr-Pr zircon yellow
MY INV	: Not in compliance with the inventory
	: Amorphous Silica
	: Zr-V baddeleyite yellow
	: Zr-Pr zircon yellow
TR INV	: Not in compliance with the inventory
	: Amorphous Silica
	: Zr-V baddeleyite yellow
	: Zr-Pr zircon yellow

### Inventories

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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)

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#### SECTION 16. OTHER INFORMATION

Revision Date : 06/02/2015

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.