

1133463		41545A Yellow Spersastain	DRM100LB
Product specification	RS_FP_600509	Revision Date	10/05/2015
Version	1	Print Date	03/15/2016
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SECTION 1. IDENTIFICATION

Product name : 41545A Yellow Spersastain DRM100LB
000000000001133463

Product code : RS_FP_600509

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**

Carcinogenicity : Category 1A

Specific target organ toxicity : Category 1
- single exposure

Specific target organ toxicity : Category 1
- repeated exposure

GHS Label element

Hazard pictograms :



Signal word : Danger

Hazard statements : H350 May cause cancer.
H370 Causes damage to organs.
H372 Causes damage to organs through prolonged or repeated exposure.

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Precautionary statements : **Prevention:**
 P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P270 Do not eat, drink or smoke when using this product.
 P281 Use personal protective equipment as required.
Response:
 P307 + P311 IF exposed: Call a POISON CENTER or doctor/ physician.
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 (%)
Zr-Pr zircon yellow	68187-15-5	>= 70 - < 90
quartz	14808-60-7	>= 10 - < 20
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 : May cause cancer.
 Causes damage to organs.
 Causes damage to organs through prolonged or repeated exposure.

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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.
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-Pr zircon yellow	68187-15-5	TWA	5 mg/m ³ (Zirconium)	OSHA Z-1
		TWA	5 mg/m ³	ACGIH

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			(Zirconium)	
		STEL	10 mg/m3 (Zirconium)	ACGIH
		TWA	5 mg/m3 (Zirconium)	OSHA P0
		STEL	10 mg/m3 (Zirconium)	OSHA P0
		TWA	5 mg/m3 (Zirconium)	NIOSH REL
		ST	10 mg/m3 (Zirconium)	NIOSH REL
quartz	14808-60-7	TWA (total dust)	30 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	10 mg/m3 / %SiO2+2	OSHA Z-3
		TWA (respirable)	250 mppcf / %SiO2+5	OSHA Z-3
		TWA (respirable dust fraction)	0.1 mg/m3	OSHA P0
		TWA (Respirable fraction)	0.025 mg/m3 (Silica)	ACGIH
		TWA (Respirable dust)	0.05 mg/m3 (Silica)	NIOSH REL
Amorphous Silica	112945-52-5	TWA (Dust)	20 Million particles per cubic foot (Silica)	OSHA Z-3
		TWA (Dust)	80 mg/m3 / %SiO2 (Silica)	OSHA Z-3
		TWA	6 mg/m3 (Silica)	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
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.

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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 : yellow

Odour : odourless

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

Bulk density : No data available

Solubility(ies)
Water solubility : insoluble

Partition coefficient: n-octanol/water : No data available

Auto-ignition temperature : not determined

Thermal decomposition : No data available

Viscosity
Viscosity, kinematic : No data available

Oxidizing properties : 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.

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:**quartz:**

Acute oral toxicity : LD50 Oral (Rat): 500 mg/kg

Amorphous Silica:

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

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

May cause cancer.

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IARC	Group 1: Carcinogenic to humans	
	quartz	14808-60-7
ACGIH	Suspected human carcinogen	
	quartz	14808-60-7
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	Known to be human carcinogen	
	quartz	14808-60-7

Reproductive toxicity

Not classified based on available information.

STOT - single exposure

Causes damage to organs.

STOT - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity**

No data available

Persistence and degradability**Components:****Zr-Pr zircon yellow:**

Biodegradability : Remarks: No data available

quartz:

Biodegradability : Remarks: No data available

Amorphous Silica:

Biodegradability : Remarks: No data available

Bioaccumulative potential**Components:****Zr-Pr zircon yellow:**

Bioaccumulation : Remarks: No data available

quartz:

Bioaccumulation : Remarks: No data available

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Amorphous Silica:

Bioaccumulation : Remarks: No data available

Mobility in soil**Components:****Zr-Pr zircon yellow:**

Distribution among environmental compartments : Remarks: No data available

quartz:

Distribution among environmental compartments : Remarks: No data available

Amorphous Silica:

Distribution among environmental compartments : Remarks: No data available

Other adverse effects

No data available

SECTION 13. DISPOSAL CONSIDERATIONS**Disposal methods**

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

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

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

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- SARA 311/312 Hazards** : Chronic Health Hazard
Acute Health Hazard
- SARA 302** : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.
- SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Massachusetts Right To Know

quartz 14808-60-7

Pennsylvania Right To Know

Zr-Pr zircon yellow 68187-15-5
quartz 14808-60-7

New Jersey Right To Know

Zr-Pr zircon yellow 68187-15-5
quartz 14808-60-7
Amorphous Silica 112945-52-5

California Prop 65

quartz WARNING! This product contains a chemical known to the State of California to cause cancer.
14808-60-7

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 : On TSCA Inventory
- DSL : All components of this product are on the Canadian DSL.
- 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-Pr zircon yellow
- ISHL : Not in compliance with the inventory
: Amorphous Silica
: Zr-Pr zircon yellow

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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

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 : 10/05/2015

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.