

SAFETY DATA SHEET

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

1435829		40-81006 QS Grenadine Gray LIQ Bottle	
Product specification	RS_FP_606367	Revision Date	02/28/2020
Version	1.0	Print Date	02/28/2020
Material number	1435829	Page	Page 1 of 11

SECTION 1. IDENTIFICATION

Product name : **1435829**
40-81006 QS Grenadine Gray LIQ Bottle

Material number : **1435829**

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

Eye irritation : Category 2A

GHS Label element

Hazard pictograms :



Signal word : Warning

Hazard statements : H319 Causes serious eye irritation.

Precautionary statements : **Prevention:**
P264 Wash skin thoroughly after handling.
P280 Wear eye protection/ face
protection.

Response:
P305 + P351 +
P338 IF IN EYES: Rinse cautiously with
water for several minutes. Remove
contact lenses, if present and easy
to do. Continue rinsing.
P337 + P313 If eye irritation persists: Get medical
advice/ attention.

Other hazards

None known.

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle
Product specification	RS_FP_606367	Revision Date 02/28/2020
Version	1.0	Print Date 02/28/2020
Material number	1435829	Page Page 2 of 11

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture
Chemical nature : metal oxide/hydroxide, organic dye, inorganic pigment, water, salt of organic acids/bases

Hazardous components

Chemical Name	CAS-No.	Concentration (%)
Co-Al spinel blue CI Pigment Blue 28	1345-16-0	>= 10 - < 20
C.I. Pigment Blue 15	147-14-8	>= 1 - < 5
docusate sodium	577-11-7	>= 1 - < 5
dichromium trioxide	1308-38-9	>= 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 : Causes serious eye irritation.

SECTION 5. FIREFIGHTING MEASURES

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

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle
Product specification	RS_FP_606367	Revision Date 02/28/2020
Version	1.0	Print Date 02/28/2020
Material number	1435829	Page Page 3 of 11

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
Co-Al spinel blue CI Pigment Blue 28	1345-16-0	TWA	0.02 mg/m ³ (Cobalt)	ACGIH
		PEL	0.1 mg/m ³ (Cobalt)	OSHA P0
		PEL	0.05 mg/m ³ (Cobalt)	NIOSH REL
C.I. Pigment Blue 15	147-14-8	TWA	1 mg/m ³ (Copper)	NIOSH REL
dichromium trioxide	1308-38-9	TWA	0.5 mg/m ³ (chromium)	OSHA Z-1
		TWA	0.5 mg/m ³ (chromium)	ACGIH
		TWA	1 mg/m ³	OSHA P0
		TWA	0.5 mg/m ³ (chromium)	NIOSH REL
		TWA	1 mg/m ³ (chromium)	OSHA Z-1

Hazardous components without workplace control parameters

Components	CAS-No.
docusate sodium	577-11-7

Biological occupational exposure limits

Components	CAS-No.	Control parameters	Biological specimen	Sampling time	Permissible concentration	Basis
Co-Al spinel blue CI Pigment Blue 28	1345-16-0	Cobalt	Urine		0.015 mg/l	ACGIH BEI
		Cobalt	Blood		0.001 mg/l	ACGIH BEI

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

Personal protective equipment

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle
Product specification	RS_FP_606367	Revision Date 02/28/2020
Version	1.0	Print Date 02/28/2020
Material number	1435829	Page Page 4 of 11

- 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 : paste
- Colour : grey
- Odour : characteristic
- Odour Threshold : No data available
- Melting point/freezing point : No data available
- Boiling point/boiling range : No data available
- Flash point : No data available
- Upper explosion limit : No data available
- Lower explosion limit : No data available
- Relative vapour density : No data available
- Solubility(ies)
Water solubility : soluble
- Auto-ignition temperature : Not determined
- Oxidizing properties : No data available
- Refractive index : No data available
- Volatile organic compounds (VOC) content : 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

SAFETY DATA SHEET

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

1435829		40-81006 QS Grenadine Gray LIQ Bottle
Product specification	RS_FP_606367	Revision Date 02/28/2020
Version	1.0	Print Date 02/28/2020
Material number	1435829	Page Page 5 of 11

Not classified based on available information.

Product:

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

Components:

Co-Al spinel blue CI Pigment Blue 28:

Acute oral toxicity : LD50 (Rat, male): > 10,000 mg/kg
Method: OECD Test Guideline 401
GLP: no

C.I. Pigment Blue 15:

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

docusate sodium:

Acute oral toxicity : LD50 Oral (Rat): > 3,000 mg/kg
Method: OECD Test Guideline 401

Acute dermal toxicity : LD50 Dermal (Rabbit): > 10,000 mg/kg
Method: OECD Test Guideline 402

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

Skin corrosion/irritation

Not classified based on available information.

Components:

Co-Al spinel blue CI Pigment Blue 28:

Species: Rabbit
Exposure time: 4 h
Assessment: No skin irritation
Method: OECD Test Guideline 404
Result: No skin irritation
GLP: no

docusate sodium:

Species: Rabbit
Method: OECD Test Guideline 404
Result: Irritating to skin.

dichromium trioxide:

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

SAFETY DATA SHEET

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

1435829		40-81006 QS Grenadine Gray LIQ Bottle	
Product specification	RS_FP_606367	Revision Date	02/28/2020
Version	1.0	Print Date	02/28/2020
Material number	1435829	Page	Page 6 of 11

Result: No skin irritation
GLP: no

Serious eye damage/eye irritation

Causes serious eye irritation.

Components:

Co-Al spinel blue CI Pigment Blue 28:

Species: Rabbit
Result: No eye irritation
Exposure time: 1 h
Assessment: No eye irritation
Method: OECD Test Guideline 405
GLP: yes

docosate sodium:

Species: Rabbit
Result: Risk of serious damage to eyes.
Exposure time: 72 h
Method: OECD Test Guideline 405

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.
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

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

1435829		40-81006 QS Grenadine Gray LIQ Bottle	
Product specification	RS_FP_606367	Revision Date	02/28/2020
Version	1.0	Print Date	02/28/2020
Material number	1435829	Page	Page 7 of 11

Aspiration toxicity

Not classified based on available information.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

Components:

Co-Al spinel blue CI Pigment Blue 28:

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
aquatic invertebrates Exposure time: 48 h

docusate sodium:

Toxicity to fish : LC50 (Fish): 20 mg/l
Exposure time: 96 h
Test Type: flow-through test

Toxicity to daphnia and other : EC50 (Daphnia (water flea)): 36 mg/l
aquatic invertebrates Exposure time: 48 h
Test Type: static test

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

Persistence and degradability

Components:

Co-Al spinel blue CI Pigment Blue 28:

Biodegradability : Remarks: No data available

C.I. Pigment Blue 15:

Biodegradability : Remarks: No data available

docusate sodium:

Biodegradability : Remarks: No data available

dichromium trioxide:

Biodegradability : Remarks: No data available

Bioaccumulative potential

Components:

Co-Al spinel blue CI Pigment Blue 28:

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle
Product specification	RS_FP_606367	Revision Date 02/28/2020
Version	1.0	Print Date 02/28/2020
Material number	1435829	Page Page 8 of 11

Bioaccumulation : Remarks: No data available

C.I. Pigment Blue 15:

Bioaccumulation : Remarks: No data available

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

docusate sodium:

Bioaccumulation : Remarks: No data available

dichromium trioxide:

Bioaccumulation : Remarks: No data available

Mobility in soil

Components:

Co-Al spinel blue CI Pigment Blue 28:

Distribution among environmental compartments : Remarks: No data available

C.I. Pigment Blue 15:

Distribution among environmental compartments : Remarks: No data available

docusate sodium:

Distribution among environmental compartments : Remarks: No data available

dichromium trioxide:

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

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle
Product specification	RS_FP_606367	Revision Date 02/28/2020
Version	1.0	Print Date 02/28/2020
Material number	1435829	Page Page 9 of 11

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

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

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
methyloxirane	75-56-9	100	*
formaldehyde	50-00-0	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 304 Extremely Hazardous Substances Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
methyloxirane	75-56-9	100	*
formaldehyde	50-00-0	100	*

*: Calculated RQ exceeds reasonably attainable upper limit.

SARA 311/312 Hazards : 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 product contains components that are reportable under the regulation.

Cobalt, inorganic compounds

Chromium III Compounds

Clean Air Act

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle	
Product specification	RS_FP_606367	Revision Date	02/28/2020
Version	1.0	Print Date	02/28/2020
Material number	1435829	Page	Page 10 of 11

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 I Intermediate or Final VOC's (40 CFR 60.489).

Clean Water Act

This product contains components that are reportable under the regulation.

This product contains components that are reportable under the regulation.

This product contains components that are reportable under the regulation.

Massachusetts Right To Know

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)	: Not in compliance with the inventory
SWISS (Switzerland)	: Not 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

SAFETY DATA SHEET



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

1435829		40-81006 QS Grenadine Gray LIQ Bottle	
Product specification	RS_FP_606367	Revision Date	02/28/2020
Version	1.0	Print Date	02/28/2020
Material number	1435829	Page	Page 11 of 11

CICR (Turkey) : Not in compliance with the inventory

INSQ (Mexico) : Not in compliance with the inventory

SECTION 16. OTHER INFORMATION

Revision Date : 02/28/2020

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.

US / EN