SAFETY DATA SHEET

896-1801 CHROMA-CHEM® YELLOW IRON OXIDE Specification: 000000138982 Version Number: 09

Revision Date: 04-11-2017



1. Identification

Product identifier	896-1801 CHROMA-CHEM® YELLOW IRON OXIDE
Other means of identification	
SAP Specification	00000138982
Recommended use	Aqueous industrial colorant
Recommended restrictions	None known.
Manufacturer/Importer/Supplier/I	Distributor information
Company	Chromaflo Technologies Corporation
	2600 Michigan Avenue
	Ashtabula,OH, USA 44005-0816
Canadian facility	Chromaflo Technologies Canada
-	235 Orenda Road
	Brampton, Ontario, Canada L6T-1E6
US telephone	440-997-5137
Canadian telephone	905-451-3810
NA: EMERGENCY # (3E)	866-519-4752
GLOBAL: EMERG. # (3E)	(+1) 760-476-3962
3E CONTRACT #	12154
3E ACCESS CODE	334294
CANADA: CANUTEC	613-996-6666
EMERGENCY NUMBER	
Product Regulatory Services	ehs_americas@chromaflo.com

2. Hazard(s) identification

Not classified.	
Skin corrosion/irritation	Category 2
Serious eye damage/eye irritation	Category 2A
Reproductive toxicity (the unborn child)	Category 2
Not classified.	

OSHA defined hazards

Label elements

Physical hazards Health hazards

> Signal word Hazard statement Precautionary statement Prevention

Warning

Causes skin irritation. Causes serious eye irritation. Suspected of damaging the unborn child.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response	If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If exposed or concerned: Get medical advice/attention. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage	Store locked up.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	If product is in liquid or paste form, hazards related to dust are not considered significant. But product may contain substances that could be potential hazards if caused to become airborne due to abrasive processes.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
2-(2-methoxyethoxy)ethanol; diethylene glycol monomethyl ethe	r	111-77-3	2.5 - 10
2-dimethylaminoethanol; N,N-dimethylethanolamine		108-01-0	1 - 2.5
Other components below reportabl	e levels		90 - 100

Other components below reportable levels

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.
Ingestion	Rinse mouth. Get medical attention if symptoms occur.
Most important symptoms/effects, acute and delayed	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	IF exposed or concerned: Get medical advice/attention. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
5. Fire-fighting measures	
Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
	Self-contained breathing apparatus and full protective clothing must be worn in case of fire. Move containers from fire area if you can do so without risk.
and precautions for firefighters Fire fighting	

6. Accidental release measures

Personal precautions,	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear
	appropriate protective equipment and clothing during clean-up. Do not touch damaged containers
emergency procedures	or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.
Environmental precautions	Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Pregnant or breastfeeding women must not handle this product. Should be handled in closed systems, if possible. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

The following constituents are the only constituents of the product which have a PEL, TLV or other recommended exposure limit. At this time, the other constituents have no known exposure limits.

Biological limit values	No biological exposure limits noted for the ingredient(s).
Appropriate engineering controls	Good general ventilation should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
Individual protection measures	s, such as personal protective equipment
Eye/face protection	Chemical respirator with organic vapor cartridge and full facepiece.
Skin protection	
Hand protection	Wear appropriate chemical resistant gloves.
Other	Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.
Respiratory protection	Use a NIOSH/MSHA approved respirator if there is a risk of exposure to vapor/mist at levels exceeding the exposure limits.
Thermal hazards	Wear appropriate thermal protective clothing, when necessary.
General hygiene considerations	Observe any medical surveillance requirements. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

9. Physical and chemical properties

Appearance		
Physical state	Liquid.	
Form	Liquid.	
Color	Yellow.	
Odor	Characteristic.	
Odor threshold	Not available.	
рН	Not available.	
Melting point/freezing point	Not available.	
Initial boiling point and boiling range	> 212 °F (> 100 °C)	
Flash point	Not available.	
Evaporation rate	Not available.	
Flammability (solid, gas)	Not applicable.	
Upper/lower flammability or explosive limits		
Flammability limit - lower (%)	Not available.	

Flammability limit - upper	Not available.
(%)	
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	1.68
Solubility(ies)	
Solubility (water)	Not available.
Partition coefficient	Not available.
(n-octanol/water)	
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Explosive properties	Not explosive.
Oxidizing properties	Not oxidizing.

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	No dangerous reaction known under conditions of normal use.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Prolonged inhalation may be harmful.
Skin contact	Causes skin irritation.
Eye contact	Causes serious eye irritation.
Ingestion	Expected to be a low ingestion hazard.
Symptoms related to the physical, chemical and toxicological characteristics	Severe eye irritation. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Skin irritation. May cause redness and pain.

Information on toxicological effects

Acute toxicity	Not known.		
Components	Species	Test Results	
2-(2-methoxyethoxy)ethanol; di	iethylene glycol monomethyl ethe	er (CAS 111-77-3)	
Acute			
Dermal			
LD50	Rabbit	6540 mg/kg	
Oral			
LD50	Rat	5500 mg/kg	
* Estimates for product ma	y be based on additional compo	nent data not shown.	
Skin corrosion/irritation	Causes skin irritation.		
Serious eye damage/eye irritation	Causes serious eye irritatio	Causes serious eye irritation.	
Respiratory or skin sensitiza	tion		
Respiratory sensitization	Not a respiratory sensitizer.		

Skin sensitization	This product is not expected to cause skin sensitization.			
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.			
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.			
IARC Monographs. Overall	Evaluation of Carcinogenicity			
Not listed.				
Not listed.	ogram (NTP) Report on Carcinogens			
	ulated Substances (29 CFR 1910.1001-1050)			
Not regulated.				
Reproductive toxicity	Suspected of damaging the unborn child.	Suspected of damaging the unborn child.		
Specific target organ toxicity - single exposure	Not classified.			
Specific target organ toxicity - repeated exposure	Not classified.			
Aspiration hazard	Not an aspiration hazard.			
Chronic effects	Prolonged inhalation may be harmful.			
12. Ecological information	n			
Ecotoxicity	The product is not classified as environmentally hazardous. However, this does not exclude the			
	possibility that large or frequent spills can have a harmful or damaging effect on the environment.			
Product	Species	Test Results		
896-1801 CHROMA-CHEM®	YELLOW IRON OXIDE			
Aquatic				
		ECOCA CAES may 1 OC house actimated		
Fish Common and to	LC50 Fish	50294.9453 mg/l, 96 hours estimated		
Components	Species	Test Results		
Components 2-(2-methoxyethoxy)ethanol;		Test Results		
Components 2-(2-methoxyethoxy)ethanol; Aquatic	Species diethylene glycol monomethyl ether (CAS 111-77-3)	Test Results		
Components 2-(2-methoxyethoxy)ethanol;	Species	Test Results		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish	Species diethylene glycol monomethyl ether (CAS 111-77-3)	Test Results		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus)	Test Results 7500 mg/l, 96 hours		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this pressure	Test Results 7500 mg/l, 96 hours		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown.	Test Results 7500 mg/l, 96 hours		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this pressure	Test Results 7500 mg/l, 96 hours oduct.		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this print No data available. No other adverse environmental effects (e.g. ozon potential, endocrine disruption, global warming point	Test Results 7500 mg/l, 96 hours oduct.		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil Other adverse effects	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this print No data available. No other adverse environmental effects (e.g. ozon potential, endocrine disruption, global warming point	Test Results 7500 mg/l, 96 hours oduct. he depletion, photochemical ozone creation tential) are expected from this component.		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil Other adverse effects 13. Disposal consideratio	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this pr No data available. No other adverse environmental effects (e.g. ozon potential, endocrine disruption, global warming points Collect and reclaim or dispose in sealed container	Test Results 7500 mg/l, 96 hours oduct. ne depletion, photochemical ozone creation tential) are expected from this component. rs at licensed waste disposal site. Dispose of hal/national/international regulations.		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil Other adverse effects 13. Disposal consideratio Disposal instructions	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this print No data available. No other adverse environmental effects (e.g. ozon potential, endocrine disruption, global warming point ns Collect and reclaim or dispose in sealed container contents/container in accordance with local/region	Test Results 7500 mg/l, 96 hours oduct. ne depletion, photochemical ozone creation tential) are expected from this component. rs at licensed waste disposal site. Dispose of hal/national/international regulations. ons.		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil Other adverse effects 13. Disposal consideratio Disposal instructions Local disposal regulations	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this pr No data available. No other adverse environmental effects (e.g. ozon potential, endocrine disruption, global warming po ns Collect and reclaim or dispose in sealed container contents/container in accordance with local/region Dispose in accordance with all applicable regulation The waste code should be assigned in discussion	Test Results 7500 mg/l, 96 hours oduct. ne depletion, photochemical ozone creation tential) are expected from this component. rs at licensed waste disposal site. Dispose of tal/national/international regulations. ons. between the user, the producer and the waste mpty containers or liners may retain some		
Components 2-(2-methoxyethoxy)ethanol; Aquatic Fish * Estimates for product may b Persistence and degradability Bioaccumulative potential Mobility in soil Other adverse effects 13. Disposal consideratio Disposal instructions Local disposal regulations Hazardous waste code Waste from residues / unused	Species diethylene glycol monomethyl ether (CAS 111-77-3) LC50 Bluegill (Lepomis macrochirus) be based on additional component data not shown. No data is available on the degradability of this pr No data available. No other adverse environmental effects (e.g. ozon potential, endocrine disruption, global warming po ns Collect and reclaim or dispose in sealed container contents/container in accordance with local/region Dispose in accordance with all applicable regulation disposal company. Dispose of in accordance with local regulations. E product residues. This material and its container not sealed container not be assigned in the container not be assigned in the discussion disposal company.	Test Results 7500 mg/l, 96 hours oduct. he depletion, photochemical ozone creation tential) are expected from this component. rs at licensed waste disposal site. Dispose of al/national/international regulations. ons. between the user, the producer and the waste mpty containers or liners may retain some nust be disposed of in a safe manner (see: due, follow label warnings even after container is		

DOT

Not regulated as dangerous goods.

ΙΑΤΑ

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

Transport in bulk according to Not established. Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

15. Regulatory informati	on			
US federal regulations		ardous Chemical" as de adian Hazardous Produ	efined by the US OSHA Hazard ucts Regulation.	I Communication
TSCA Section 12(b) Expo	rt Notification (40 CFR 70)7, Subpt. D)		
Not regulated. CERCLA Hazardous Subs	tance List (40 CFR 302.4	•)		
2-(2-methoxyethoxy)ethanol; diethylene glyco monomethyl ether (CAS 111-77-3)		Listed.		
SARA 304 Emergency rele	ease notification			
Not regulated. US. OSHA Specifically Re	gulated Substances (29	CFR 1910.1001-1050)		
Not regulated.				
Superfund Amendments and I				
Hazard categories	Immediate Hazard - Y Delayed Hazard - Yes Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No	3		
SARA 302 Extremely haza Not listed.	rdous substance			
SARA 311/312 Hazardous chemical	No			
SARA 313 (TRI reporting)				
Chemical name		CAS number	% by wt.	
CERTAIN GLYCOL ET	HERS	111-77-3	2.5 - 10	
Other federal regulations				
Clean Air Act (CAA) Section	on 112 Hazardous Air Po	ollutants (HAPs) List		
Clean Air Act (CAA) Section	nanol; diethylene glycol mo on 112(r) Accidental Rele			
Not regulated.				
Safe Drinking Water Act (SDWA)	Not regulated.			
US state regulations	WARNING: This prod defects or other repro-		known to the State of California	a to cause birth
US - California Propo	sition 65 - CRT: Listed da	ate/Developmental tox	tin	
2-ethoxyethanol (C US - California Propo	CAS 110-80-5) sition 65 - CRT: Listed da	Listed: Janua ate/Male reproductive		
2-ethoxyethanol (C	CAS 110-80-5)	Listed: Janua		s, tit. 22, 69502.3,
2-(2-methoxyethox	xy)ethanol; diethylene glyc	ol monomethyl ether (C	AS 111-77-3)	
International Inventories				
Country(s) or region	Inventory name		C	On inventory (yes/no)*
Australia	Australian Inventory o	f Chemical Substances	(AICS)	Yes
Canada	Domestic Substances	List (DSL)		No
Canada	Non-Domestic Substa	nces List (NDSL)		No
China	Inventory of Existing C	Chemical Substances in	China (IECSC)	Yes
Europe	European Inventory of Substances (EINECS)	f Existing Commercial C	Chemical	Yes

Substances (EINECS)

Country(s) or region	Inventory name On inver	ntory (yes/no)*
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes
Taiwan	Taiwan Toxic Chemicals Substances Control Act	No
** ** * * * * * * *		

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date Revision date Version #	05-11-2015 04-11-2017 09
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Revision information	Product and Company Identification: Product and Company Identification Physical & Chemical Properties: Multiple Properties Regulatory Information: United States