

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	1 / 10

1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**Product information**

Trade name : 830-1824 CAL-TINT®II RAW SIENNA
Use of the Substance / : Aqueous colorant
Preparation
Company : Chromaflo Technologies Corporation
2600 Michigan Avenue
Ashtabula, OH 44005-0816
USA

Telephone : 440-997-5137

Telefax : 440-992-3613

US: CHEMTREC EMERGENCY : 800-424-9300
NUMBER

CANADA: CANUTEC : 613-996-6666
EMERGENCY NUMBER

Product Regulatory Services : 440-536-9691

2. HAZARDS IDENTIFICATION***** EMERGENCY OVERVIEW *****

Form-paste **Color-light yellow - light brown** **Odor-Glycol odor.**

CAL-TINT colorants may cause eye, skin and respiratory tract irritation.
May be harmful if swallowed.

POTENTIAL HEALTH EFFECTS**Eye contact**

According to test results on similar colorant base mixtures, this CAL-TINT colorant is classified as a moderate eye irritant. May cause tearing, reddening and/or swelling.

Skin Contact

Irritating.

Inhalation

CAL-TINT colorants may cause irritation.

Ingestion

May be harmful if swallowed.

Ingestion of excessive amounts of diethylene glycol causes abdominal discomfort or pain, nausea, vomiting, dizziness, central nervous system effects, kidney damage and cardiopulmonary effects

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	2 / 10

(metabolic acidosis) which may be fatal (estimated human oral lethal dose, 1.0 to 1.2 g/kg) and may cause liver effects.

Chronic Health Hazard

Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. However, there is currently no available information to suggest that ethylene glycol has caused birth defects in humans.

Short term exposures to talc may cause lung irritation. Long term excessive exposure to talc dust may cause talcosis, a pulmonary fibrosis which in turn may lead to severe and permanent damage to the lungs. NTP Toxicology and Carcinogenesis Studies of Talc revealed that there is some evidence of carcinogenic activity in male rats and clear evidence of carcinogenic activity in female rats. There was no evidence of carcinogenic activity in male or female mice.

Prolonged inhalation of iron oxide dust is known to produce a condition known as siderosis. On X-rays it appears to be a benign pneumoconiosis and is not associated with pulmonary fibrosis or disability unless there is concurrent exposure to other fibrosis producing materials such as silica. High concentrations of titanium dioxide dust caused microscopic lung tumors in rats in lifetime inhalation studies. However, DuPont, the primary US manufacturer, based on a review of the test data and based on an epidemiological study of employees, concludes that titanium dioxide pigment will not cause chronic respiratory disease in humans at concentrations experienced in the workplace.

Because this product is a free-flowing liquid or paste, dust inhalation is not an expected route of exposure.

3. COMPOSITION/INFORMATION ON INGREDIENTS**Information on ingredients / Hazardous components**

Diethylene glycol			
CAS-No.	111-46-6	Percent (Wt./ Wt.)	10 - 30 %
Talc, Magnesium silicate hydrate			
CAS-No.	14807-96-6	Percent (Wt./ Wt.)	5 - 10 %
Nonylphenoxypoly(ethyleneoxy)ethanol, branched			
CAS-No.	68412-54-4	Percent (Wt./ Wt.)	1 - 5 %
Titanium dioxide			
CAS-No.	13463-67-7	Percent (Wt./ Wt.)	1 - 5 %
Iron oxide			
CAS-No.	1332-37-2	Percent (Wt./ Wt.)	1 - 5 %
Benzenesulfonic acid, mono-C9-17-branched alkyl derivs., compds. with 2-propanamine			
CAS-No.	68649-00-3	Percent (Wt./ Wt.)	1 - 5 %
ethanediol; ethylene glycol			
CAS-No.	107-21-1	Percent (Wt./ Wt.)	> 0.1 - < 1 %

Other information

This material is classified as hazardous under OSHA regulations.

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	3 / 10

4. FIRST AID MEASURES**Inhalation**

If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If unconscious, evaluate the need for artificial respiration. Get immediate medical attention.

Skin contact

Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Obtain medical attention. Wash clothing before reuse. Destroy or thoroughly clean contaminated shoes before reuse.

Eye contact

Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Get medical attention.

Ingestion

If swallowed give two glasses of water and induce vomiting immediately as directed by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

5. FIRE-FIGHTING MEASURES**Suitable extinguishing media**

In case of fire, use water (flood with water), dry chemical, CO2 or "alcohol" foam.

Specific hazards during fire fighting

Contains material that can burn in fire if contained water is evaporated by heat or fire. Burning will produce hazardous compounds including oxides of: carbon. nitrogen. sulfur.

Further information

As in any fire, wear self-contained positive-pressure breathing apparatus, (MSHA/NIOSH approved or equivalent) and full protective gear. Containers can build up pressure if exposed to heat (fire). Cool with water spray.

6. ACCIDENTAL RELEASE MEASURES**Personal precautions**

Wear personal protective equipment; see section 8.

Environmental precautions

Obey relevant local, state, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

Methods for cleaning up

Ventilate area. Absorb spill with inert material and place in a chemical waste container.

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	4 / 10

7. HANDLING AND STORAGE**Handling****Safe handling advice**

Avoid contact with eyes, skin and clothing. Use with adequate ventilation. Avoid breathing vapor or mist. Follow all MSDS/label precautions even after container is emptied because it may retain product residues. Wash thoroughly after handling.

Storage**Requirements for storage areas and containers**

Keep in a dry, cool place.
 Keep container closed when not in use.
 Residual vapors might explode on ignition; do not apply heat, cut, drill, grind or weld on or near this container.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION**Component occupational exposure guidelines**

- **Talc, Magnesium silicate hydrate**

CAS-No.	14807-96-6	
Control parameters	2 mg/m ³	Time Weighted Average (TWA):(ACGIH)
	Respirable fraction.	
	The value is for particulate matter containing no asbestos and <1% crystalline silica.	
	2 mg/m ³	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)
	Respirable dust.	
	20millions of particles per cubic foot of air	Time Weighted Average (TWA):(Z3)
	2.4millions of particles per cubic foot of air	Time Weighted Average (TWA):(Z3)
	Respirable.	
	The exposure limit is calculated from the equation, 250/(%SiO ₂ +5), using a value of 100% SiO ₂ . Lower percentages of SiO ₂ will yield higher exposure limits.	
	0.1 mg/m ³	Time Weighted Average (TWA):(Z3)
	Respirable.	
	The exposure limit is calculated from the equation, 10/(%SiO ₂ +2), using a value of 100% SiO ₂ . Lower percentages of SiO ₂ will yield higher exposure limits.	
	0.3 mg/m ³	Time Weighted Average (TWA):(Z3)
	Total dust.	
	The exposure limit is calculated from the equation, 30/(%SiO ₂ +2), using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	

- **Titanium dioxide**

CAS-No.	13463-67-7
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MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	5 / 10

10 mg/m ³	Time Weighted Average (TWA):(ACGIH)
15 mg/m ³	PEL:(OSHA Z1)
Total dust.	
• Iron oxide	
CAS-No.	1332-37-2
	(Z3)
Respirable fraction. Listed.	
5 mg/m ³ Respirable fraction.	PEL:(OSHA Z1)
15 mg/m ³ Total dust.	PEL:(OSHA Z1)
3 mg/m ³ Respirable particles.	Time Weighted Average (TWA):(ACGIH)
10 mg/m ³ Inhalable particles.	Time Weighted Average (TWA):(ACGIH)

Engineering measures

Use only in well-ventilated areas.

Personal protective equipment**Respiratory protection**

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 or applicable federal/provincial requirements must be followed whenever workplace conditions warrant respirator use. NIOSH's "Respirator Decision Logic" may be useful in determining the suitability of various types of respirators.

Hand protection

Use impermeable gloves.

Eye protection

Chemical resistant goggles must be worn.

Skin and body protection

A safety shower and eye wash fountain should be readily available.

To identify additional Personal Protective Equipment (PPE) requirements, it is recommended that a hazard assessment in accordance with the OSHA PPE Standard (29CFR1910.132) be conducted before using this product.

9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	paste
Color	light yellow - light brown
Odor	Glycol odor.

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	6 / 10

Safety data

pH	8.0 - 9.4
Boiling point/range	> 100 °C
Relative density	1.8
Solubility/qualitative	Solubility in water: Dispersible.
Viscosity, dynamic	78 - 111 KU (25 °C)
Relative vapor density	Heavier than air
Solvents and Volatiles Data	
	% VOC (gm/l) 523
Evaporation rate	Slower than butyl acetate

10. STABILITY AND REACTIVITY

Conditions to avoid	Not applicable.
Materials to avoid	strong acids, oxidizing substances, sodium hypochlorite

11. TOXICOLOGICAL INFORMATION

Component Acute oral toxicity	Diethylene glycol 111-46-6 LD50 Rat: 20760 mg/kg
	Nonylphenoxy poly(ethyleneoxy) ethanol, branched 68412-54-4 LD50 Rat: 3000 mg/kg
	Titanium dioxide 13463-67-7 LD50 Rat: > 24000 mg/kg
	Iron oxide 1332-37-2 LD50 Rat: > 5000 mg/kg
	ethanediol; ethylene glycol 107-21-1 LD50 Rat(female): 4000 mg/kg
Component Acute inhalation toxicity	Titanium dioxide 13463-67-7 LC50 Rat: > 6820 mg/m ³ / 4 h

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	7 / 10

Component Acute dermal toxicity

Diethylene glycol
111-46-6
LD50 Rabbit: 13300 mg/kg

Nonylphenoxypoly(ethyleneoxy)ethanol, branched
68412-54-4
LD50 Rabbit: 4400 mg/kg

Titanium dioxide
13463-67-7
LD50 Rabbit: > 10000 mg/kg

ethanediol; ethylene glycol
107-21-1
LD50 Rabbit: 10500 mg/kg

Component Repeated dose toxicity

Talc, Magnesium silicate hydrate
14807-96-6
Inhalation Rat(male)
Testing period: 791 d
LOAEL: 0.006 mg/l
target organ/effect: Lungs

Titanium dioxide
13463-67-7
High concentrations of titanium dioxide dust caused microscopic lung tumors in rats in lifetime inhalation studies. However, DuPont, the primary US manufacturer, based on a review of the test data and based on an epidemiological study of employees, concludes that titanium dioxide pigment will not cause chronic respiratory disease in humans at concentrations experienced in the workplace.

ethanediol; ethylene glycol
107-21-1
Chronic ingestion of an ingredient in this product has been shown to cause adverse effects on the peripheral nervous system of laboratory animals.

Component carcinogenicity assessment

Talc, Magnesium silicate hydrate
14807-96-6
Short term exposures to talc may cause lung irritation. Long term excessive exposure to talc dust may cause talcosis, a pulmonary fibrosis which in turn may lead to severe and permanent damage to the lungs. NTP Toxicology and Carcinogenesis Studies of Talc revealed that there is some evidence of carcinogenic activity in male rats and clear evidence of carcinogenic activity in female rats. There was no evidence of carcinogenic activity in male or female mice.

Titanium dioxide
13463-67-7
Contains a component which is classified as an IARC 2B carcinogen (possibly carcinogenic to humans).

Component teratogenicity assessment

ethanediol; ethylene glycol
107-21-1

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	8 / 10

Component General Toxicity Information

Ethylene glycol has been shown to produce dose-related teratogenic effects in rats and mice when given by gavage or in drinking water at high concentrations or doses. However, there is currently no available information to suggest that ethylene glycol has caused birth defects in humans.

**Diethylene glycol
111-46-6**

According to long-term animal inhalation studies, very high concentrations of diethylene glycol vapors caused central nervous system effects in mice and rats. However, an extensive review of the literature shows that no such effects have been documented in humans (Patty's Industrial Hygiene and Toxicology, 1982, Third Revised Ed., Vol 2c, p 3838).

In a continuous breeding study of mice, continued ingestion of large amounts of diethylene glycol (6 g/kg/day) caused an adverse effect on fertility and some embryotoxic and fetotoxic effects concurrent with some maternal toxicity. The relevance of these very high doses to humans is uncertain.

**ethanediol; ethylene glycol
107-21-1**

Ethylene glycol may aggravate an existing kidney disease. Repeated skin contact with ethylene glycol may, in a very small proportion of cases, cause sensitization with the development of allergic contact dermatitis. The incidence is significantly less than 1% with the undiluted material. Repeated inhalation of ethylene glycol mist may produce signs of central nervous system involvement, particularly dizziness and drowsiness.

12. ECOLOGICAL INFORMATION

General Ecological Information No ecotoxicological studies are available.

13. DISPOSAL CONSIDERATIONS**WASTE DISPOSAL****Advice on disposal**

Waste must be disposed of in accordance with federal, state, provincial and local regulations. CONTAINER DISPOSAL: Empty containers by removing the top and inverting to allow all free-flowing product to drain. To meet regulatory criteria, the container is considered empty when less than 3% remains in the container. Additional special handling is not typically required and the empty container can be discarded with other non-hazardous trash. Note: Local disposal regulations may be more stringent and require additional restrictions or precautions. Customers should check with their local disposal company, municipal or state authority. Recycle of plastic or metal containers may require clean rather than empty containers. In this case the containers can be rinsed with water until the containers are considered generally product free.

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	9 / 10

14. TRANSPORT INFORMATION**Transport/further information**

Not dangerous according to transport regulations.

15. REGULATORY INFORMATION**US Federal Regulations****OSHA**

If listed below, chemical specific standards apply to the product or components:

- None listed

Clean Air Act Section (112)

If listed below, components present at or above the de minimus level are hazardous air pollutants:

- ethanediol; ethylene glycol
CAS-No. 107-21-1

CERCLA Reportable Quantities

If listed below, a reportable quantity (RQ) applies to the product based on the percent of the named component:

- None listed

SARA Title III Section 311/312 Hazard Categories

The product meets the criteria only for the listed hazard classes:

- Acute Health Hazard
- Chronic Health Hazard

SARA Title III Section 313 Reportable Substances

If listed below, components are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

- None listed

Toxic Substances Control Act (TSCA)

If listed below, non-proprietary substances are subject to export notification under Section 12 (b) of TSCA:

- None listed

MATERIAL SAFETY DATA SHEET**830-1824 CAL-TINT®II RAW SIENNA**

Material no.		Version	3.0 / US
Specification	139623	Revision date	03/22/2013
Order Number		Print Date	04/20/2013
		Page	10 / 10

State Regulations**California Proposition 65**

A warning under the California Drinking Water Act is required only if listed below:

WARNING! This product contains a chemical known in the State of California to cause cancer.

- Titanium dioxide
CAS-No. 13463-67-7

International Chemical Inventory Status

Unless otherwise noted, this product is in compliance with the inventory listing of the countries shown below. For information on listing for countries not shown, contact the Product Regulatory Services Department.

• Europe (EINECS/ELINCS)	Listed/registered
• USA (TSCA)	Listed/registered
• Canada (DSL)	Listed/registered
• Australia (AICS)	Not listed/Not registered
• Japan (MITI)	Not listed/Not registered
• Korea (TCCL)	Not listed/Not registered
• Philippines (PICCS)	Not listed/Not registered
• China	Not listed/Not registered
• New Zealand	Not listed/Not registered

16. OTHER INFORMATION**HMIS Ratings**

Health :	2*
Flammability :	1
Physical Hazard :	0

Further information

Changes since the last version are highlighted in the margin. This version replaces all previous versions.

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.