

**MATERIAL SAFETY DATA SHEET****830-1109 CAL-TINT®II BURNT SIENNA**

Material no.		Version	5.0 / US
Specification	139656	Revision date	03/22/2013
Order Number		Print Date	04/06/2013
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**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING****Product information**

Trade name : 830-1109 CAL-TINT®II BURNT 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-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**

Moderately irritating.  
May cause tearing, reddening and/or swelling.

**Skin Contact**

Moderately irritating.  
Prolonged or repeated contact may result in defatting and drying of the skin causing skin irritation and dermatitis (rash).

**Inhalation**

May cause respiratory tract irritation.  
Overexposure to aerosols or mists containing ethylene glycol may cause lung irritation. See exposure limit (section 8).

**Ingestion**

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May be harmful if swallowed.

Ingestion of ethylene glycol may cause abdominal discomfort or pain, nausea, vomiting, dizziness, drowsiness, irritability and central nervous system effects. Swallowing large volumes of ethylene glycol causes severe kidney damage and cardiopulmonary effects (metabolic acidosis) which may be fatal. The human oral lethal dose is approximately 1.6 g/kg.

Ingestion of ethylene glycol can cause neurological impairment.

Repeated ingestion of ethylene glycol can cause bone marrow, liver, and sperm effects.

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

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**

ethanediol; ethylene glycol			
CAS-No.	107-21-1	Percent (Wt./ Wt.)	10 - 30 %
Iron oxide			
CAS-No.	1332-37-2	Percent (Wt./ Wt.)	10 - 30 %
Nonylphenoxypoly(ethyleneoxy)ethanol, branched			
CAS-No.	68412-54-4	Percent (Wt./ Wt.)	5 - 10 %
Diethylene glycol			
CAS-No.	111-46-6	Percent (Wt./ Wt.)	1 - 5 %
C.I. Pigment Black 11			
CAS-No.	1317-61-9	Percent (Wt./ Wt.)	1 - 5 %
Benzenesulfonic acid,C10-16-alkyl derivs., compds. with 2-propanamine			
CAS-No.	68584-24-7	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 %
Titanium dioxide			
CAS-No.	13463-67-7	Percent (Wt./ Wt.)	> 0.1 - < 1 %
Tannins			

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CAS-No. 1401-55-4 Percent (Wt./ Wt.) &gt; 0.1 - &lt; 1 %

**Other information**

This material is classified as hazardous under OSHA regulations.

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**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**

In case of contact, immediately flush eyes with plenty of water for at least 15 minutes or until all material has been removed. Obtain medical attention.

**Ingestion**

If swallowed, get medical attention immediately. Only induce vomiting if directed by a physician. Never give anything by mouth to an unconscious person.

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**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.

**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.

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**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.

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**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****• ethanediol; ethylene glycol**

CAS-No. 107-21-1  
Control parameters 100 mg/m3  
Aerosol.

Ceiling Limit Value:(ACGIH)

40 ppm  
100 mg/m3  
Vapor.

Ceiling Limit Value:(US CA OEL)

**• Titanium dioxide**

CAS-No. 13463-67-7  
10 mg/m3  
15 mg/m3  
Total dust.

Time Weighted Average (TWA):(ACGIH)  
PEL:(OSHA Z1)**• C.I. Pigment Black 11**

CAS-No. 1317-61-9  
5 mg/m3  
Respirable fraction.

PEL:(OSHA Z1)

15 mg/m3  
Total dust.

PEL:(OSHA Z1)

3 mg/m3  
Respirable particles.

Time Weighted Average (TWA):(ACGIH)

10 mg/m3  
Inhalable particles.

Time Weighted Average (TWA):(ACGIH)

**• Iron oxide**

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CAS-No.	1332-37-2	(Z3)
	Respirable fraction. Listed.	
	5 mg/m3 Respirable fraction.	PEL:(OSHA Z1)
	15 mg/m3 Total dust.	PEL:(OSHA Z1)
	3 mg/m3 Respirable particles.	Time Weighted Average (TWA):(ACGIH)
	10 mg/m3 Inhalable particles.	Time Weighted Average (TWA):(ACGIH)

**Other information**

The exposure value for ethylene glycol is given as an aerosol.  
The AIHA WEEL for diethylene glycol is 50 PPM for total vapor and aerosol and 10 mg/m3 for aerosol alone (eight hour time-weighted averages).  
The exposure limit for iron oxide is for dust and fume as Fe.

**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	brown
Odor	Glycol odor.

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**Safety data**

pH	8.0 - 9.0
Boiling point/range	> 100 °C
Relative density	1.9
Solubility/qualitative	Solubility in water: Dispersible.
Viscosity, dynamic	80 - 95 KU (25 °C)
Solvents and Volatiles Data	
	% VOC (gm/l) 496
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	ethanediol; ethylene glycol 107-21-1 LD50 Rat(female): 4000 mg/kg
		Iron oxide 1332-37-2 LD50 Rat: > 5000 mg/kg
		Nonylphenoxy poly(ethyleneoxy) ethanol, branched 68412-54-4 LD50 Rat: 3000 mg/kg
		Diethylene glycol 111-46-6 LD50 Rat: 20760 mg/kg
		Benzenesulfonic acid, C10-16-alkyl derivs., compds. with 2-propanamine 68584-24-7 LD50 Rat: < 2000 mg/kg
		Titanium dioxide 13463-67-7 LD50 Rat: > 24000 mg/kg

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	Tannins 1401-55-4 LD50 Rat: 2260 mg/kg
Component Acute inhalation toxicity	Titanium dioxide 13463-67-7 LC50 Rat: > 6820 mg/m3 / 4 h
Component Acute dermal toxicity	ethanediol; ethylene glycol 107-21-1 LD50 Rabbit: 10500 mg/kg
	Nonylphenoxypoly(ethyleneoxy)ethanol, branched 68412-54-4 LD50 Rabbit: 4400 mg/kg
	Diethylene glycol 111-46-6 LD50 Rabbit: 13300 mg/kg
	Titanium dioxide 13463-67-7 LD50 Rabbit: > 10000 mg/kg
Component Repeated dose toxicity	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.
	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.
Component carcinogenicity assessment	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 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.
Component General Toxicity Information	ethanediol; ethylene glycol 107-21-1 Ethylene glycol may aggravate an existing kidney disease. Repeated skin

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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.

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.

**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.

**14. TRANSPORT INFORMATION****D.O.T. Road/Rail**

Class	9
UN-No	3082
Packing group	III
Proper shipping name	Environmentally hazardous substance, liquid, n.o.s.



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**Loading instructions/Remarks**

IATA_C	Not dangerous according to transport regulations.
IATA_P	Not dangerous according to transport regulations.
IMDG	Not dangerous according to transport regulations.
CFR_INWTR	USA: Not regulated for transport when package contains less than the reportable quantity listed in section 15 of the msds.
CFR_RAIL	USA: Not regulated for transport when package contains less than the reportable quantity listed in section 15 of the msds.
CFR_ROAD	USA: Not regulated for transport when package contains less than the reportable quantity listed in section 15 of the msds.

**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:

- ethanediol; ethylene glycol  
CAS-No. 107-21-1  
Reportable Quantity 34247 lbs

**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:

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

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**Toxic Substances Control Act (TSCA)**

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

- None listed

**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.

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