

MATERIAL SAFETY DATA SHEET

824-2003 CHROMA-CHEM® RAW UMBER



Material no.		Version	1.32 / US
Specification	139892	Revision date	07/18/2008
Order Number		Print Date	07/19/2008
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : 824-2003 CHROMA-CHEM® RAW UMBER
Use of the Substance / : Non-aqueous colorant
Preparation
Company : Evonik Degussa Corporation
379 Interpace Parkway
Parsippany, NJ 07054
USA

Telephone : 973-541-8000

Telefax : 973-541-8040

US: CHEMTREC EMERGENCY : 800-424-9300
NUMBER

CANADA: CANUTEC : 613-996-6666
EMERGENCY NUMBER

Product Regulatory Services : 973-541-8060

2. HAZARDS IDENTIFICATION

*** EMERGENCY OVERVIEW ***

Form-paste **Color-brown** **Odor-Petroleum distillate odor.**

May cause eye, skin and respiratory tract irritation.
Combustible liquid and vapor.

POTENTIAL HEALTH EFFECTS

Eye contact

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

Skin Contact

Prolonged or repeated contact may result in defatting and drying of the skin causing skin irritation and dermatitis (rash).
Moderate irritant according to test results on similar base mixtures.

Inhalation

Possibly irritating.
Excessive inhalation of solvent vapors may cause nasal and respiratory irritation and central nervous system effects including dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even death.

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Ingestion

May cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

Chronic Health Hazard

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. Health studies have shown that many petroleum hydrocarbons pose potential human health risks which may vary from person to person. As a precaution, exposure to liquids, vapors, mists or fumes should be minimized.

Some studies have linked exposure of carbon black dust to lung effects. IARC classifies carbon black as a Category 2B Carcinogen (known animal carcinogen, possible human carcinogen) based on inhalation studies. However, the manufacturers of carbon black state that epidemiologic studies of workers in the carbon black industry in the U.S. and W. Europe show no significant adverse health effects due to occupational exposure.

Overexposure to crystalline silica dust causes lung effects. There is sufficient evidence in humans for the carcinogenicity of inhaled crystalline silica (IARC 1, OSHA).

Crystalline Silica has been assigned the A2 carcinogen designation by ACGIH, suspected human carcinogen.

Repeated inhalation of crystalline silica may cause kidney disease, auto-immune disease, and lymph node effects.

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

Iron Oxide			
CAS-No.	1309-37-1	Percent (Wt./ Wt.)	30 - 60 %
Solvent naphtha (petroleum), medium aliph.; Straight run kerosine			
CAS-No.	64742-88-7	Percent (Wt./ Wt.)	10 - 30 %
Manganese trioxide			
CAS-No.	1317-34-6	Percent (Wt./ Wt.)	5 - 10 %
Umber			
CAS-No.	12713-03-0	Percent (Wt./ Wt.)	5 - 10 %
Calcium Carbonate			
CAS-No.	1317-65-3	Percent (Wt./ Wt.)	1 - 5 %
Carbon black, amorphous			
CAS-No.	1333-86-4	Percent (Wt./ Wt.)	1 - 5 %
Distillates (petroleum), hydrotreated light; Kerosine - unspecified			
CAS-No.	64742-47-8	Percent (Wt./ Wt.)	1 - 5 %
Silica, crystalline (quartz)			
CAS-No.	14808-60-7	Percent (Wt./ Wt.)	0.1 - 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

Do not induce vomiting. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs. Get medical attention.

Never administer anything by mouth to an individual who rapidly losing consciousness, unconscious or convulsing.

If the heart has stopped or breathing has stopped, trained personnel should begin cardiopulmonary resuscitation or artificial respiration immediately.

5. FIRE-FIGHTING MEASURES

Flash point 38.33 °C , 101 °F
Method: Pensky-Martens C.C.

OSHA Flammability Classification Combustible Liquid

Suitable extinguishing media

Use water spray or fog, foam, dry chemical or CO2.

Specific hazards during fire fighting

Combustible liquid. Vapors can travel to a source of ignition and flash back. Explosive mixtures may occur at temperatures at or above the flashpoint.

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

Additional advice

Remove sources of ignition and ventilate area.

Use personal protective equipment as described in Section 8. Absorb spill with inert material and place in a chemical waste container. Obey relevant local, provincial and federal laws and regulations. Do not contaminate any lakes, streams, ponds, groundwater or soil.

7. HANDLING AND STORAGE

Handling

Safe handling advice

Keep away from sparks and other sources of ignition.

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 away from heat. Keep away from sparks, flame and other sources of ignition.

Keep container closed when not in use.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component occupational exposure guidelines

• Carbon black, amorphous

CAS-No. 1333-86-4

Control parameters 3.5 mg/m3

3.5 mg/m3

3.5 mg/m3

Time Weighted Average (TWA):(ACGIH)

PEL:(OSHA Z1)

Time Weighted Average (TWA)

Permissible Exposure Limit (PEL):(US CA OEL)

• Distillates (petroleum), hydrotreated light; Kerosine - unspecified

CAS-No. 64742-47-8

200 mg/m3 as total hydrocarbon vapor

Non-aerosol.

P: Application restricted to conditions in which there are negligible aerosol exposures.

Time Weighted Average (TWA):(ACGIH)

as total hydrocarbon vapor

Non-aerosol.

Can be absorbed through the skin.

Skin designation:(ACGIH)

200 mg/m3 as total

Time Weighted Average (TWA):(ACGIH)

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hydrocarbon vapor
Non-aerosol.

as total hydrocarbon
vapor
Non-aerosol.
Can be absorbed through the skin.

Skin designation:(ACGIH)

- **Silica, crystalline (quartz)**

CAS-No. 14808-60-7
0.05 mg/m3
Respirable particles.

Time Weighted Average (TWA):(ACGIH)

0.1 mg/m3

Time Weighted Average (TWA)
Permissible Exposure Limit (PEL):(US CA
OEL)

Respirable dust.

0.3 mg/m3

Time Weighted Average (TWA)
Permissible Exposure Limit (PEL):(US CA
OEL)

Total dust.

2.4millions of particles
per cubic foot of air
Respirable.

Time Weighted Average (TWA):(Z3)

The exposure limit is calculated from the equation, $250/(\%SiO_2+5)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.

0.1 mg/m3
Respirable.

Time Weighted Average (TWA):(Z3)

The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower percentages of SiO₂ will yield higher exposure limits.

0.3 mg/m3

Time Weighted Average (TWA):(Z3)

Total dust.

The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$, using a value of 100% SiO₂. Lower values of % SiO₂ will give higher exposure limits.

0.025 mg/m3
Respirable fraction.

Time Weighted Average (TWA):(ACGIH)

- **Iron Oxide**

CAS-No. 1309-37-1
10 mg/m3
Fume.

PEL:(OSHA Z1)

5 mg/m3

Time Weighted Average (TWA)
Permissible Exposure Limit (PEL):(US CA
OEL)

Fume.

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5 mg/m³
Respirable fraction. Time Weighted Average (TWA):(ACGIH)

• Manganese trioxide

CAS-No. 1317-34-6
5 mg/m³ as Mn
0.2 mg/m³ as Mn
Ceiling Limit Value:(OSHA Z1)
Time Weighted Average (TWA)
Permissible Exposure Limit (PEL):(US CA OEL)
0.2 mg/m³ as Mn
Time Weighted Average (TWA):(ACGIH)

• Calcium Carbonate

CAS-No. 1317-65-3
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 crystalline silica is for the respirable fraction.
Exposure values for Aliphatic petroleum distillates (CAS nr 64742-47-8) are given as Stoddard solvent.

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 requirements, it is recommended that a hazard assessment be conducted before using this product.

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9. PHYSICAL AND CHEMICAL PROPERTIES**Appearance**

Form	paste
Color	brown
Odor	Petroleum distillate odor.

Safety data

Boiling point/range	> 149 °C
Flash point	38.33 °C Method: Pensky-Martens C.C.
Relative density	1.4
Solubility/qualitative	Solubility in water: Slight.
Viscosity, dynamic	90 - 114 KU (25 °C)
Solvents and Volatiles Data	% VOC (gm/l) 280.68
Evaporation rate	Slower than butyl acetate

10. STABILITY AND REACTIVITY

Conditions to avoid	Avoid high temperatures and sources of ignition.
Materials to avoid	oxidizing substances, Ethylene oxide and guanidinium perchlorate (incompatible with iron oxide.)

11. TOXICOLOGICAL INFORMATION

Component Acute oral toxicity	Iron Oxide 1309-37-1 LD50 Rat: > 5000 mg/kg
	Carbon black, amorphous 1333-86-4 LD50 Rat: > 10000 mg/kg
	Distillates (petroleum), hydrotreated light; Kerosine - unspecified 64742-47-8 LD50 Rat: > 15000 mg/kg
Component Acute inhalation toxicity	Carbon black, amorphous 1333-86-4

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	LC50 Rat: 6750 mg/m3 / 4 h
	Distillates (petroleum), hydrotreated light; Kerosine - unspecified 64742-47-8 LC50 Rat: > 14100 mg/m3 / 4 h
Component Acute dermal toxicity	Distillates (petroleum), hydrotreated light; Kerosine - unspecified 64742-47-8 LD50 Rabbit: > 2000 mg/kg
Component Mutagenicity assessment	Carbon black, amorphous 1333-86-4 This product contains one or more ingredients that have been shown to produce mutagenic effects in in vitro testing.
Component carcinogenicity assessment	Carbon black, amorphous 1333-86-4 Some studies have linked exposure of carbon black dust to lung effects. IARC classifies carbon black as a Category 2B Carcinogen (known animal carcinogen, possible human carcinogen) based on inhalation studies. However, the manufacturers of carbon black state that epidemiologic studies of workers in the carbon black industry in the U.S. and W. Europe show no significant adverse health effects due to occupational exposure.
	Silica, crystalline (quartz) 14808-60-7 Contains a component which is classified as an IARC Group 1 carcinogen (carcinogenic to humans).
Component General Toxicity Information	Silica, crystalline (quartz) 14808-60-7 Chronic inhalation of crystalline silica dust may cause kidney disease, auto-immune disease, and lymph node effects in humans. Crystalline silica has shown positive results in "in vitro" screening tests for mutagenicity.

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, provincial and local regulations. Empty containers must be handled with care due to product residue. DO NOT HEAT OR CUT THE EMPTY CONTAINER WITH AN ELECTRIC OR GAS TORCH.

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14. TRANSPORT INFORMATION**Sea transport IMDG-Code**

Class	3
UN-No	1263
Packaging group	III
EmS	F-E, S-E

Proper technical name (Proper shipping name)
PAINT RELATED MATERIAL

Air transport ICAO-TI/IATA-DGR

Class	3
UN-No	1263
Packaging group	III

Proper technical name (Proper shipping name)
Paint related material

Loading instructions/Remarks

IATA_C	ERG-Code 3L
IATA_P	ERG-Code 3L
CFR_INWTR	In the U.S. this material may be classified as combustible liquid. Combustible liquids are not regulated in packages 450 liters or less. This applies for shipments by road and rail only.
CFR_RAIL	In the U.S. this material may be classified as combustible liquid. Combustible liquids are not regulated in packages 450 liters or less. This applies for shipments by road and rail only.
CFR_ROAD	In the U.S. this material may be classified as combustible liquid. Combustible liquids are not regulated in packages 450 liters or less. This applies for shipments by road and rail only.

15. REGULATORY INFORMATION**Information on ingredients / Non-hazardous components**

This product contains the following non-hazardous components

NJTSR No.56705700001-5032P			
CAS-No.	Trade Secret	Percent (Wt./ Wt.)	1 - 5 %
NJTSR No.56705700001-5474P			
CAS-No.	Trade Secret	Percent (Wt./ Wt.)	1 - 5 %
NJTSR No.56705700001-5069P			
CAS-No.	Trade Secret	Percent (Wt./ Wt.)	10 - 30 %

US Federal Regulations**OSHA**

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

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- None listed

Clean Air Act Section (112)

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

- Manganese trioxide
CAS-No. 1317-34-6

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
- Fire 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:

- Manganese trioxide
CAS-No. 1317-34-6

Toxic Substances Control Act (TSCA)

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

- None listed

Other US Federal Regulatory Information

Note: Silica, crystalline (airborne particles of respirable size) is listed as a carcinogen under California Proposition 65. However, the physical form of this product (a free flowing paste) precludes exposure to airborne particles of respirable size.

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.

- Carbon black, amorphous
CAS-No. 1333-86-4
- Silica, crystalline (quartz)

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CAS-No. 14808-60-7

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)	Listed/registered
• Japan (MITI)	Not listed/Not registered
• Korea (TCCL)	Listed/registered
• Philippines (PICCS)	Listed/registered
• China	Listed/registered
• New Zealand	Listed/registered

16. OTHER INFORMATION

HMIS Ratings

Health :	2*
Flammability :	2
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

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