

MATERIAL SAFETY DATA SHEET
844-2075 CHROMA-CHEM®RAW UMBER

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creating essentials

Material no.		Version	1.27 / US
Specification	139717	Revision date	08/05/2007
Order Number		Print Date	08/07/2007
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : 844-2075 CHROMA-CHEM®RAW UMBER
Use of the Substance / : Non-aqueous colorant
Preparation
Company : Degussa Corporation
379 Interpace Parkway
Parsippany, NJ 07054
USA

Telephone : 973-541-8000

Telefax : 973-541-8040

US: CHEMTREC EMERGENCY NUMBER : 800-424-9300

CANADA: CANUTEC EMERGENCY NUMBER : 613-996-6666

Product Regulatory Services : 973-541-8060

2. HAZARDS IDENTIFICATION

***** EMERGENCY OVERVIEW *****

Form-paste **Color-brown** **Odor-Sweet ether-like odor.**

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

POTENTIAL HEALTH EFFECTS

Eye contact

Irritating.
May cause tearing, reddening and/or swelling.
May injure eye tissue if not removed promptly.
May cause conjunctivitis.

Skin Contact

A moderate skin irritant based on testing of similar CHROMA-CHEM® base mixtures. Prolonged or repeated contact may cause irritation.
Prolonged skin contact with large amounts of ether acetates may cause drowsiness.

Inhalation

Possibly irritating.
Excessive inhalation of solvent vapors may cause nasal and respiratory irritation and central

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nervous system effects including dizziness, weakness, fatigue, nausea, headache, possible unconsciousness and even death.

Ingestion

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

Chronic Health Hazard

High vapor concentrations (3000 ppm) of propylene glycol monomethyl ether acetate caused upper respiratory irritation and liver and kidney effects in subchronic animal testing. The relevance of these results to humans is not known.

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. 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.

Manganese dioxide dust has caused developmental effects in the absence of maternal effects.

Repeated exposure to manganese dioxide may lead to neurological effects and lung effects.

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.

This product contains an ingredient that has been shown to produce mutagenic effects in in vivo testing.

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

2-methoxy-1-methylethyl acetate			
CAS-No.	108-65-6	Percent (Wt./ Wt.)	30 - 60 %
Iron Oxide			
CAS-No.	1309-37-1	Percent (Wt./ Wt.)	10 - 30 %
manganese dioxide			
CAS-No.	1313-13-9	Percent (Wt./ Wt.)	5 - 10 %
NJTSR No.56705700001-5384P			
CAS-No.	Trade Secret	Percent (Wt./ Wt.)	5 - 10 %
Aluminum oxide			
CAS-No.	1344-28-1	Percent (Wt./ Wt.)	1 - 5 %
Carbon black, amorphous			
CAS-No.	1333-86-4	Percent (Wt./ Wt.)	1 - 5 %
Silica, crystalline (quartz)			
CAS-No.	14808-60-7	Percent (Wt./ Wt.)	1 - 5 %

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6. ACCIDENTAL RELEASE MEASURES

Additional advice

Absorb spill with inert material, then place in a chemical waste container. After removal, flush contaminated area with water and collect for disposal. Clean up spills immediately. Remove sources of ignition and ventilate area. Use a respirator and other protective equipment as outlined in Section 8. Obey relevant local, state, 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 heat. Keep away from sparks, flames and other sources of ignition. Avoid contact with eyes, skin and clothing. Avoid breathing vapor or mist. Use with adequate ventilation. The need for grounding and bonding of containers in accordance with OSHA 29 CFR 1910.106 and NFPA 77 should be assessed for all product transfers. Follow all MSDS/label precautions even after the 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

• **Carbon black, amorphous**

CAS-No.	1333-86-4	Time Weighted Average (TWA):(ACGIH)
Control parameters	3.5 mg/m3	PEL:(OSHA Z1)
	3.5 mg/m3	Time Weighted Average (TWA)
	3.5 mg/m3	Permissible Exposure Limit (PEL):(US CA OEL)

• **Aluminum oxide**

CAS-No.	1344-28-1	Time Weighted Average (TWA):(ACGIH)
	10 mg/m3	The value is for particulate matter containing no asbestos and <1% crystalline silica.
	5 mg/m3	PEL:(OSHA Z1)
	Respirable fraction.	
	15 mg/m3	PEL:(OSHA Z1)
	Total dust.	

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5 mg/m3
Time Weighted Average (TWA)
Permissible Exposure Limit (PEL):(US CA OEL)

Respirable fraction.

10 mg/m3
Time Weighted Average (TWA)
Permissible Exposure Limit (PEL):(US CA OEL)

Total dust.

• **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 value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

0.1 mg/m3
Respirable.
Time Weighted Average (TWA):(Z3)
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

0.3 mg/m3
Total dust.
Time Weighted Average (TWA):(Z3)
The value is calculated from a specified equation using a value of 100%. Lower values of % will give higher exposure limits. See regulation for specific equation.

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)

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Fume.

5 mg/m3

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

Respirable fraction.

10 mg/m3

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

Total dust.

5 mg/m3
Respirable fraction.

Time Weighted Average (TWA):(ACGIH)

• **manganese dioxide**

CAS-No. 1313-13-9
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)

Other information

The AIHA WEEL for propylene glycol monomethyl ether acetate is 50 ppm TWA.

The exposure value for crystalline silica is for the respirable fraction.

The OSHA PEL-TWA for crystalline silica is 30 mg/m3 divided by "%SiO2 + 2" (as total particulate), and 10mg/m3 divided by "%SiO2 + 2" (as respirable fraction).

The OSHA PEL-TWA for aluminum oxide is 15 mg/m3 (total) and 5 mg/m3 (respirable).

The ACGIH TWA for aluminum oxide is 10m/m3 for particulate matter containing no asbestos and <1% crystalline silica.

Engineering measures

Use explosion-proof ventilation equipment.

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.

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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	Sweet ether-like odor.

Safety data

Boiling point/range	> 143 °C
Flash point	46.67 °C Method: Setaflash Closed Cup
Relative density	1.4
Solubility/qualitative	Solubility in water: Negligible.
Viscosity, dynamic	65 - 85 KU (25 °C)
Solvents and Volatiles Data	% VOC (gm/l) 550.57
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.)
Hazardous decomposition products	Exothermic reactions of aluminum oxide above 200°C with halocarbon vapors produces toxic HCl and phosgene.

11. TOXICOLOGICAL INFORMATION

Component	Acute oral toxicity	2-methoxy-1-methylethyl acetate 108-65-6 LD50 Rat: 8532 mg/kg
		Iron Oxide 1309-37-1 LD50 Rat: > 5000 mg/kg

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Trade Secret

LD50 Rat: > 2000 mg/kg

Aluminum oxide

1344-28-1

LD50 Rat: > 10000 mg/kg

Carbon black, amorphous

1333-86-4

LD50 Rat: > 10000 mg/kg

Component Acute inhalation
toxicityLC50 (rat) > 4345 ppm, 6 hours, vapor
related to substance: 2-methoxy-1-methylethyl acetate

Carbon black, amorphous

1333-86-4

LC50 Rat: 6750 mg/m3 / 4 h

Component Acute dermal toxicity

2-methoxy-1-methylethyl acetate
108-65-6
LD50 Rabbit: > 19000 mg/kg
(calculated)
(literature value)Component Mutagenicity
assessmentCarbon black, amorphous
1333-86-4This product contains one or more ingredients that have been shown to
produce mutagenic effects in in vitro testing.Component carcinogenicity
assessmentCarbon black, amorphous
1333-86-4Some 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
Information2-methoxy-1-methylethyl acetate
108-65-6High vapor concentrations (3000 ppm) of propylene glycol monomethyl
ether acetate caused upper respiratory irritation and liver and kidney
effects in subchronic animal testing. The relevance of these results to
humans is not known.

manganese dioxide

1313-13-9

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Repeated exposure to manganese dioxide may cause lung effects. There is conclusive evidence that inhaling high levels of manganese dioxide may lead to neurological effects in humans, such as altered gait, tremor, and psychiatric disturbances. These effects may continue to progress even after exposure to manganese dioxide ceases. Manganese dioxide dust has caused developmental toxicity in the absence of maternal effects.

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, 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 mineral spirits until the containers are considered generally product free.

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
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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

Acrylic Copolymer			
CAS-No.	70892-90-9	Percent (Wt./ Wt.)	10 - 30 %

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:

- manganese dioxide
CAS-No. 1313-13-9

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

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- 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:

- Aluminum oxide
CAS-No. 1344-28-1
- manganese dioxide
CAS-No. 1313-13-9

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)
CAS-No. 14808-60-7

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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 Degussa Corporation Product Regulatory 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) | Not listed/Not registered |
| • China | 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.