

MATERIAL SAFETY DATA SHEET
824-1612 COLORTREND® VAN DYKE BROWN

degussa.

creating essentials

Material no.		Version	1.18 / US
Specification	139673	Revision date	08/22/2007
Order Number		Print Date	08/23/2007
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1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name : 824-1612 COLORTREND® VAN DYKE BROWN
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-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

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.

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.

Long term or repeated exposure to amorphous silica has caused lung effects in animals.

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.

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.

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.)	10 - 30 %
Stoddard solvent; Low boiling point naphtha - unspecified			
CAS-No.	8052-41-3	Percent (Wt./ Wt.)	10 - 30 %
Amorphous silica			
CAS-No.	7631-86-9	Percent (Wt./ Wt.)	5 - 10 %
Talc, Magnesium silicate hydrate			
CAS-No.	14807-96-6	Percent (Wt./ Wt.)	5 - 10 %
Carbon black, amorphous			
CAS-No.	1333-86-4	Percent (Wt./ Wt.)	1 - 5 %
Manganese trioxide			
CAS-No.	1317-34-6	Percent (Wt./ Wt.)	1 - 5 %
Silica, crystalline (quartz)			
CAS-No.	14808-60-7	Percent (Wt./ Wt.)	1 - 5 %

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Other information

This material is classified as hazardous under OSHA regulations.

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

Remove contaminated clothing/shoes. Flush skin with water. Follow by washing with soap and water. If symptoms develop or persist, obtain medical attention. Wash clothing 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

Aspiration of material into the lungs may cause chemical pneumonitis (damage to lungs) which may be fatal.

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

5. FIRE-FIGHTING MEASURES

Flash point 46.11 °C , 115 °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**

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
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)

• Stoddard solvent; Low boiling point naphtha - unspecified

CAS-No. 8052-41-3
100 ppm
500 ppm
2900 mg/m³
100 ppm
525 mg/m³

Time Weighted Average (TWA):(ACGIH)
PEL:(OSHA Z1)

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

• Talc, Magnesium silicate hydrate

CAS-No. 14807-96-6

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2 mg/m3
Respirable fraction.
The value is for particulate matter containing no asbestos and <1% crystalline silica.

Time Weighted Average (TWA):(ACGIH)

2 mg/m3
Respirable dust.

Time Weighted Average (TWA)

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

20millions of particles
per cubic foot of air
2.4millions of particles
per cubic foot of air
Respirable.
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.

Time Weighted Average (TWA):(Z3)

Time Weighted Average (TWA):(Z3)

0.1 mg/m3
Respirable.
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.

Time Weighted Average (TWA):(Z3)

0.3 mg/m3
Total dust.
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.

Time Weighted Average (TWA):(Z3)

• Amorphous silica

CAS-No.	7631-86-9	
	20millions of particles per cubic foot of air	Time Weighted Average (TWA):(Z3)
	0.8 mg/m3	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.	
	10 mg/m3 Inhalable particles.	Time Weighted Average (TWA):(ACGIH)
	3 mg/m3 Respirable particles.	Time Weighted Average (TWA):(ACGIH)
	5 mg/m3 Respirable fraction.	PEL:(OSHA Z1)
	15 mg/m3 Total dust.	PEL:(OSHA Z1)
	5 mg/m3 Respirable fraction.	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)

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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

Time Weighted Average (TWA):(ACGIH)

Respirable particles.

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

Time Weighted Average (TWA):(Z3)

Respirable.

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

Time Weighted Average (TWA):(Z3)

Total dust.

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

Time Weighted Average (TWA):(ACGIH)

Respirable fraction.

• **Iron Oxide**

CAS-No. 1309-37-1

10 mg/m3

PEL:(OSHA Z1)

Fume.

5 mg/m3

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

Fume.

5 mg/m3

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

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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 trioxide**

CAS-No. 1317-34-6
5 mg/m³ as Mn
0.2 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)
Time Weighted Average (TWA):(ACGIH)

Other information

Exposure values for mineral spirits (CAS# 8052-41-3) are given as Stoddard solvent.

The OSHA TWA and ACGIH TWA exposure values for talc are for asbestos free talc expressed as millions of particles per cubic foot (mppcf).

The OSHA TWA exposure value for amorphous silica is expressed as millions of particles per cubic foot (mppcf).

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

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.

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

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Form	paste
Color	brown
Odor	Petroleum distillate odor.

Safety data

Boiling point/range	> 149 °C
Flash point	46.11 °C Method: Pensky-Martens C.C.
Relative density	1.3
Solubility/qualitative	Solubility in water: Slight.
Viscosity, dynamic	60 - 80 KU (25 °C)
Solvents and Volatiles Data	% VOC (gm/l) 212.00
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 Stoddard solvent; Low boiling point naphtha - unspecified 8052-41-3 LD50 Rat: > 5000 mg/kg Amorphous silica 7631-86-9 LD50 Rat: > 31600 mg/kg Carbon black, amorphous 1333-86-4 LD50 Rat: > 10000 mg/kg
Component Acute inhalation toxicity	Stoddard solvent; Low boiling point naphtha - unspecified 8052-41-3

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LC50 Rat: > 5500 mg/m3 / 4 h

Carbon black, amorphous

1333-86-4

LC50 Rat: 6750 mg/m3 / 4 h

Component Acute dermal toxicity Stoddard solvent; Low boiling point naphtha - unspecified
8052-41-3

LD50 Rabbit: > 3000 mg/kg

Amorphous silica

7631-86-9

LD50 Rabbit: > 2000 mg/kg

Component Repeated dose
toxicity

Amorphous silica

7631-86-9

Long term or repeated exposure to amorphous silica has caused lung effects in animals.

Talc, Magnesium silicate hydrate

14807-96-6

Inhalation Rat(male)

Testing period: 791 d

LOAEL: 0.006 mg/l

target organ/effect: Lungs

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

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.

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).

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Product General Toxicity
Information

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
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.

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CFR_RAIL Combustible liquids are not regulated in packages 450 liters or less. This applies for shipments by road and rail only.
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 Combustible liquids are not regulated in packages 450 liters or less. This applies for shipments by road and rail only.
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.56705700001-5069P			
CAS-No.	Trade Secret	Percent (Wt./ Wt.)	30 - 60 %
NJTSR No.56705700001-5032P			
CAS-No.	Trade Secret	Percent (Wt./ Wt.)	1 - 5 %

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 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

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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)
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 | Not listed/Not 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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