1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING

Product information

Trade name	:	824-9946 CHROMA-CHEM® LAMP BLACK
Use of the Substance / Preparation	:	Non-aqueous colorant
Company	:	Evonik 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**-black* **Odor**-*Petroleum distillate odor.*

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

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.

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.
Ethylene glycol monobutyl ether has caused red blood hemolysis in laboratory animals and secondary injury to the kidney and liver. However, humans appear to be resistant to this effect. Ethylene glycol monobutyl ether has been observed to cause fetotoxic effects in animal experiments in the presence of maternal toxicity. Chronic inhalation of ethylene glycol monobutyl ether has led to increased tumor production 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

Carbon black, amorphous			
CAS-No.	1333-86-4	Percent (Wt./ Wt.)	10 - 30 %
Stoddard solvent; Low boiling point naphtha - unspecified			
CAS-No.	8052-41-3	Percent (Wt./ Wt.)	30 - 60 %
Talc, Magnesium silicate hydrate			
CAS-No.	14807-96-6	Percent (Wt./ Wt.)	10 - 30 %
Distillates (petroleum), hydrotreated light; Kerosine - unspecified			
CAS-No.	64742-47-8	Percent (Wt./ Wt.)	1 - 5 %
2-butoxyethanol; ethylene glycol monobutyl ether			
CAS-No.	111-76-2	Percent (Wt./ Wt.)	0.1 - 1 %

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. Obtain medical attention if irritation develops.

Ingestion

Aspiration of material into the lungs may cause chemical pneumonitis (damage to lungs) which may be fatal.
If swallowed, do NOT induce vomiting. Give victim a glass of water or milk. Call a physician or poison control center immediately. Never give anything by mouth to an unconscious person.

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.

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	Time Weighted Average (TWA):(ACGIH)
	3.5 mg/m3	PEL:(OSHA Z1)
	3.5 mg/m3	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	Time Weighted Average (TWA):(ACGIH)
	500 ppm	PEL:(OSHA Z1)
	2900 mg/m3	
	100 ppm	Time Weighted Average (TWA) Permissible Exposure Limit (PEL):(US CA OEL)
	525 mg/m3	

- **Talc, Magnesium silicate hydrate**

CAS-No.	14807-96-6	
	2 mg/m3	Time Weighted Average (TWA):(ACGIH)

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

2 mg/m3	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/(%SiO2+5), using a value of 100% SiO2. Lower percentages of SiO2 will yield higher exposure limits.

0.1 mg/m3	Time Weighted Average (TWA):(Z3)

Respirable.
The exposure limit is calculated from the equation, 10/(%SiO2+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/(%SiO2+2), using a value of 100% SiO2. Lower values of % SiO2 will give higher exposure limits.

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

CAS-No. 64742-47-8

200 mg/m3 as total hydrocarbon vapor Non-aerosol.	Time Weighted Average (TWA):(ACGIH)

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

as total hydrocarbon vapor Non-aerosol.	Skin designation:(ACGIH)

Can be absorbed through the skin.

200 mg/m3 as total hydrocarbon vapor Non-aerosol.	Time Weighted Average (TWA):(ACGIH)
as total hydrocarbon vapor Non-aerosol.	Skin designation:(ACGIH)

Can be absorbed through the skin.

- **2-butoxyethanol; ethylene glycol monobutyl ether**

CAS-No. 111-76-2

20 ppm	Time Weighted Average (TWA):(ACGIH)
50 ppm 240 mg/m3	PEL:(OSHA Z1)

Skin designation:(OSHA Z1)

Can be absorbed through the skin.

20 ppm — Time Weighted Average (TWA)
97 mg/m3 — Permissible Exposure Limit (PEL):(US CA OEL)
Skin designation:(US CA OEL)

Can be absorbed through the skin.

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

Form	paste
Color	black
Odor	Petroleum distillate odor.

Safety data

Boiling point/range	> 149 °C
Flash point	38.33 °C Method: Pensky-Martens C.C.
Relative density	1.1
Solubility/qualitative	Solubility in water: Slight.
Viscosity, dynamic	80 - 100 KU (25 °C)

Solvents and Volatiles Data

% VOC (gm/l)	385.04
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

11. TOXICOLOGICAL INFORMATION

Component Acute oral toxicity

Carbon black, amorphous
1333-86-4
LD50 Rat: > 10000 mg/kg

Stoddard solvent; Low boiling point naphtha - unspecified
8052-41-3
LD50 Rat: > 5000 mg/kg

Distillates (petroleum), hydrotreated light; Kerosine - unspecified
64742-47-8
LD50 Rat: > 15000 mg/kg

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
LD50 Rat: 470 mg/kg
RTECS

Component Acute inhalation toxicity

Carbon black, amorphous
1333-86-4
LC50 Rat: 6750 mg/m3 / 4 h

Stoddard solvent; Low boiling point naphtha - unspecified
8052-41-3
LC50 Rat: > 5500 mg/m3 / 4 h

Distillates (petroleum), hydrotreated light; Kerosine - unspecified
64742-47-8
LC50 Rat: > 14100 mg/m3 / 4 h

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
LC50 rat(female): ca. 2.169 mg/l / 4 h
Calculated from ppm value

Component Acute dermal toxicity

Stoddard solvent; Low boiling point naphtha - unspecified
8052-41-3
LD50 Rabbit: > 3000 mg/kg

Distillates (petroleum), hydrotreated light; Kerosine - unspecified

64742-47-8
LD50 Rabbit: > 2000 mg/kg

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
LD50 Rabbit: 220 mg/kg

Component Skin irritation

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
Rabbit / 24 h
Irritating to skin.
Severe skin irritation
Method: Draize Test
irritating

Component Eye irritation

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
Rabbit
Irritating to eyes.
Severe eye damage must be expected.
Severe eye irritation

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

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
inhalative mouse
Testing period: 730 d
LOAEL: 0.6025 mg/l
target organ/effect: Lungs, Liver

Component Gentoxicity in vitro

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
In vitro tests involving bacteria, human and other mammalian cells have indicated that ethylene glycol monobutyl ether may cause weak mutagenic effects. However, it is not possible to conclude that this substance is liable to cause mutagenic effects as the relevance of these tests is questionable since none have been reproduced.

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.

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.

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
Ethylene glycol monobutyl ether has caused malignant and benign tumors in animal experiments.

Component teratogenicity assessment

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
Oral and inhalation exposure to ethylene glycol monobutyl ether has been shown in animal experiments to cause dose-related fetotoxic effects. Developmental effects, including malformation of the fetus, have been observed at doses that were maternally toxic and marginally reduced fetal weight has been observed at doses that were not maternally toxic in rats.

Component General Toxicity Information

2-butoxyethanol; ethylene glycol monobutyl ether
111-76-2
Ethylene glycol monobutyl ether has caused red blood hemolysis in laboratory animals and secondary injury to the kidney and liver. However, humans appear to be resistant to this effect.
Inhalation of ethylene glycol monobutyl ether can cause CNS effects in humans. Ingestion of ethylene glycol monobutyl ether has caused eye effects in animals.
Based on animal test results, ethylene glycol monobutyl ether is toxic by skin absorption, ingestion and inhalation.

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. 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.56705700001-5069P			
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:

- None listed

Clean Air Act Section (112)

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

- None listed

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:

- 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

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

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)	Not listed/Not 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.