

Safety Data Sheet

Deep Blue

Revision date : 2013/04/26

Version: 1.2

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(30322206/SDS COS US/EN)

1. Product and Company Identification

Supplier:

TKB TRADING, LLC
1101 9th Avenue
Oakland, CA 94606
P: 510- 922-9027

INCI Name: Mica (and) Titanium Dioxide (and) Iron Oxides (and) Ferric Ferrocyanide

2. Hazards Identification

Emergency overview

WARNING:

May cause cancer by inhalation.
Contains a suspect carcinogen.
Prolonged or repeated exposure may cause pulmonary problems.

State of matter: solid
Colour: blue-grey
Odour: odourless

Potential health effects

Primary routes of exposure:

Routes of entry for solids and liquids include eye and skin contact, ingestion and inhalation. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquified gases.

Acute toxicity:

Virtually nontoxic after a single ingestion.

Irritation / corrosion:

Inhalation of dust may cause respiratory tract irritation, coughing and breathing difficulties. Contact with the eyes or skin may cause mechanical irritation.

Chronic toxicity:

Carcinogenicity: May cause cancer by inhalation. Contains a compound classified as IARC Group 2B (possibly carcinogenic to humans).

Repeated dose toxicity: Prolonged or repeated exposure may cause pulmonary problems. The product has not been tested. The statement has been derived from the properties of the individual components.

Reproductive toxicity: The chemical structure does not suggest a specific alert for such an effect.

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Teratogenicity: No data was available concerning toxicity to development.

Genotoxicity: No data was available concerning mutagenic activity. The chemical structure does not suggest a specific alert for such an effect. The product has not been tested. The statement has been derived from the properties of the individual components.

Medical conditions aggravated by overexposure:
Inhalation of dust could aggravate existing respiratory conditions.

Potential environmental effects

Aquatic toxicity:
At the present state of knowledge, no negative ecological effects are expected.

3. Composition / Information on Ingredients

| <u>CAS Number</u> | <u>Content (W/W)</u> | <u>Chemical name</u> |
|-------------------|----------------------|---|
| 12001-26-2 | 31.0 - 56.4 % | Mica-group minerals |
| 13463-67-7 | 32.0 - 46.0 % | Titanium dioxide |
| 1317-61-9 | 11.0 - 19.0 % | Iron oxide (Fe ₃ O ₄) |
| 14038-43-8 | 0.6 - 4.0 % | Ferrate(4-), hexakis(cyano-.kappa.C)-, iron(3+) (3:4), (OC-6-11)- |
| 1309-37-1 | 1.0 - 5.0 % | Iron oxide |

4. First-Aid Measures

General advice:
Remove contaminated clothing.

If inhaled:
If difficulties occur after dust has been inhaled, remove to fresh air and seek medical attention.

If on skin:
Wash thoroughly with soap and water. If irritation develops, seek medical attention.

If in eyes:
Wash affected eyes for at least 15 minutes under running water with eyelids held open. If irritation develops, seek immediate medical attention.

If swallowed:
Rinse mouth and then drink plenty of water. Do not induce vomiting. Seek medical attention if necessary.

Note to physician

Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.

5. Fire-Fighting Measures

| | |
|----------------------------|--------------------------------------|
| Flash point: | not applicable |
| Autoignition: | Study does not need to be conducted. |
| Lower explosion limit: | Study does not need to be conducted. |
| Upper explosion limit: | Study does not need to be conducted. |
| Flammability: | not flammable |
| Self-ignition temperature: | not self-igniting |

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Additional information:

Use extinguishing measures to suit surroundings.

Hazards during fire-fighting:

cyanides, nitrogen oxides

Protective equipment for fire-fighting:

Wear a self-contained breathing apparatus.

Further information:

Product itself is non-combustible; fire extinguishing method of surrounding areas must be considered.

6. Accidental release measures

Personal precautions:

Avoid dust formation. Ensure adequate ventilation. Wear suitable personal protective clothing and equipment.

Environmental precautions:

Do not empty into drains.

This product is not regulated by RCRA. This product is not regulated by CERCLA ('Superfund').

Cleanup:

For small amounts: Pick up with suitable appliance and dispose of.

For large amounts: Pick up with suitable appliance and dispose of.

Spills should be contained and placed in suitable containers for disposal.

7. Handling and Storage

Handling

General advice:

Breathing must be protected when large quantities are decanted without local exhaust ventilation. Avoid contact with the skin, eyes and clothing.

Avoid dust formation. Closed containers should only be opened in well-ventilated areas.

Protection against fire and explosion:

No special precautions necessary.

See MSDS section 5 - Fire fighting measures. Prevent electrostatic charge accumulation.

Storage

General advice:

Keep in a cool place. Keep container dry.

8. Exposure Controls and Personal Protection

Components with occupational exposure limits

| | | |
|---------------------|-------|--|
| Iron oxide | OSHA | PEL 10 mg/m3 fumes/smoke ; |
| | ACGIH | TWA value 5 mg/m3 Respirable fraction ; |
| Titanium dioxide | OSHA | PEL 15 mg/m3 Total dust ; |
| | ACGIH | TWA value 10 mg/m3 ; |
| Mica-group minerals | OSHA | TWA value 20 millions of particles per cubic foot of air ; |
| | ACGIH | TWA value 3 mg/m3 Respirable fraction ; |

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Ferrate(4-), hexakis(cyano-
.kappa.C)-, iron(3+) (3:4), (OC-
6-11)- OSHA

PEL 5 mg/m3 (CN); Skin Designation (CN);
The substance can be absorbed through the skin.

Personal protective equipment

Respiratory protection:

Observe OSHA regulations for respirator use (29 CFR 1910.134). Wear a NIOSH-certified (or equivalent) particulate respirator.

Hand protection:

Chemical resistant protective gloves

Eye protection:

Safety glasses with side-shields.

General safety and hygiene measures:

Handle in accordance with good industrial hygiene and safety practice. Due to the colouring properties of the product closed work clothes should be used, to avoid stains during manipulation. Hands and/or face should be washed before breaks and at the end of the shift. Wash soiled clothing immediately.

9. Physical and Chemical Properties

| | | |
|---|--|--|
| Form: | powder | |
| Odour: | odourless | |
| Colour: | blue-grey | |
| pH value: | 3.5 - 9.0 | (4 %(m)) |
| Melting point: | | The substance / product decomposes. |
| Boiling point: | | not applicable, solid with a melting temperature over 300 °C |
| Vapour pressure: | | not applicable |
| Density: | | not determined |
| Bulk density: | 256 kg/m3 | |
| Vapour density: | | The product is a non-volatile solid. |
| Partitioning coefficient n-octanol/water (log Pow): | | Study does not need to be conducted. |
| Viscosity, dynamic: | | Study does not need to be conducted. |
| Particle size: | D10 8.0 µm D50 21.0 µm D90 44.0 µm | |
| Solubility in water: | | insoluble |

10. Stability and Reactivity

Conditions to avoid:

No conditions known that should be avoided.

Substances to avoid:

Ethylene Oxide, aqueous alkalis, strong bases

Hazardous reactions:

No hazardous reactions when stored and handled according to instructions.

The product is chemically stable.

Hazardous polymerization will not occur.

Decomposition products:

Hazardous decomposition products: cyanides, nitrogen oxides

Thermal decomposition:

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No decomposition if stored and handled as prescribed/indicated.

Corrosion to metals:
No corrosive effect on metal.

Oxidizing properties:
not fire-propagating

11. Toxicological information

Acute toxicity

Oral:

Type of value: LD50

Species: rat

Value: > 2,000 mg/kg

The product has not been tested. The statement has been derived from the properties of the individual components.

Inhalation:

Type of value: LC50

not determined

Dermal:

Type of value: LD50

not determined

Irritation / corrosion

Skin:

May cause mechanical irritation.

Eye:

May cause mechanical irritation.

Carcinogenicity

Information on: Titanium dioxide

In long-term studies in rats in which the substance was given by inhalation, a carcinogenic effect was observed. Due to the species specific mode of action, the effects are not expected to occur in humans. IARC (International Agency for Research on Cancer) has classified this substance as group 2B (The agent is possibly carcinogenic to humans). In long-term studies in rats and mice in which the substance was given by feed, a carcinogenic effect was not observed.

Aspiration Hazard:

No aspiration hazard expected.

Other Information:

The product has not been tested. The statements on toxicology have been derived from the properties of the individual components.

12. Ecological Information

Fish

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Acute:

Fish/LC50 (96 h): > 100 mg/l

The product has not been tested. The statement has been derived from the properties of the individual components.

Microorganisms

Toxicity to microorganisms:

EC0: > 100 mg/l

Degradability / Persistence

Biological / Abiological Degradation

Evaluation:

The colourant is insoluble in water and can thus be separated from water mechanically in suitable effluent treatment plant

Other adverse effects:

The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from the properties of the individual components.

13. Disposal considerations

Waste disposal of substance:

Must be disposed of or incinerated in accordance with local regulations.

Dispose of in a licensed facility. Do not discharge into drains/surface waters/groundwater. It is the waste generator's responsibility to determine if a particular waste is hazardous under RCRA. This product does not possess any of the four identifying characteristics of hazardous waste (ignitability, corrosivity, reactivity, or toxicity).

Container disposal:

Uncontaminated packaging can be re-used. Packs that cannot be cleaned should be disposed of in the same manner as the contents.

14. Transport Information

Land transport

USDOT

Not classified as a dangerous good under transport regulations

Sea transport

IMDG

Not classified as a dangerous good under transport regulations

Air transport

IATA/ICAO

Not classified as a dangerous good under transport regulations

15. Regulatory Information

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Federal Regulations

Registration status:

Cosmetic TSCA, US released / exempt

OSHA hazard category:

IARC 1, 2A or 2B carcinogen; Chronic target organ effects reported; OSHA PEL established; ACGIH TLV established

EPCRA 311/312 (Hazard categories):

Acute; Chronic

EPCRA 313:

CAS Number

14038-43-8

Chemical name

Ferrate(4-), hexakis(cyano-.kappa.C)-, iron(3+) (3:4), (OC-6-11)-

State regulations

State RTK

MA, NJ, PA

MA, NJ, PA

NJ, PA

MA, NJ, PA

CAS Number

12001-26-2

13463-67-7

14038-43-8

1309-37-1

Chemical name

Mica-group minerals

Titanium dioxide

Ferrate(4-), hexakis(cyano-.kappa.C)-, iron(3+) (3:4), (OC-6-11)-

Iron oxide

16. Other Information

NFPA Hazard codes:

Health: 1 Fire: 0 Reactivity: 0 Special:

HMIS III rating

Health: 1 \square Flammability: 0 Physical hazard: 0

NFPA and HMIS use a numbering scale ranging from 0 to 4 to indicate the degree of hazard. A value of zero means that the substance possesses essentially no hazard; a rating of four indicates extreme danger. Although similar, the two rating systems are intended for different purposes, and use different criteria. The NFPA system was developed to provide an on the spot alert to the hazards of a material, and their severity, to emergency responders. The HMIS system was designed to communicate workplace hazard information to employees who handle hazardous chemicals.

SDS Prepared on: 2013/04/26

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