

# BALLAD

Revision date: 10/17/06

Date Printed: 07/03/07

**NFPA Classification:**

Health: 0

Flammability: 0

Instability: 0

Special Hazards:

**HMIS Classification:**

Health: 0

Flammability: 0

Physical Hazard: 0

Personal Protection: E

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: Chemical Mixture

Product Use: Colorant.

Supplier: TKB Trading LLC,  
1101 9th Avenue,  
Oakland, CA 94606,  
510-451-9011

## 2. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient CAS Number	Weight in Percent (%)	Notes
Ferric Ferrocyanide 14038-43-8	1.0 - 4.0	None.
Mica 12001-26-2	46.0 - 64.0	None.
Titanium Dioxide 13463-67-7	35.0 - 50.0	None.

## 3. HAZARDS IDENTIFICATION

**Emergency Overview:**

Color: Blue with a pale red reflection

Form: Powder

Odor: Odorless

**Flash Point, °C:** Not Applicable

**Most Important Hazards:** Prolonged or repeated exposure may cause lung damage.

**Potential Health Effects:**

**Inhalation:** May cause irritation of the respiratory tract. Prolonged or repeated exposure causes lung damage.

**Ingestion:** No adverse health effects are expected from swallowing.

**Skin Contact:** May cause skin irritation.

**Eye Contact:** Dust may cause irritation and inflammation.

**Carcinogenicity:**

Ingredient CAS Number	Weight in Percent (%)	NTP (Y/N)	IARC (See Notes)	OSHA (Y/N)	ACGIH (See Notes)
Ferric Ferrocyanide 14038-43-8	1.0 - 4.0	N	N	N	N
Mica 12001-26-2	46.0 - 64.0	N	N	N	N
Titanium Dioxide 13463-67-7	35.0 - 50.0	N	N3	N	A4

**Notes:**

IARC: Y1=Carcinogenic to humans; Y2A=Probably carcinogenic to humans; Y2B=Possibly carcinogenic to humans; N3=Not classifiable as to its carcinogenicity; N=Not studied or probably not carcinogenic.

ACGIH: A1=Confirmed human carcinogen; A2=Suspected human carcinogen; A3=Confirmed animal carcinogen; A4=Not classifiable as a human carcinogen; A5=Not suspected as a human carcinogen; N=Not studied.

**Chronic Health Hazards:** Prolonged or repeated exposure to dust may cause pulmonary problems.

**Aggravated Medical Conditions:** Pulmonary disorders. Allergies.

#### 4. FIRST AID MEASURES

**Inhalation:** Move person to fresh air. Aid in breathing, if necessary, and get immediate medical attention.

**Ingestion:** If large quantities are ingested, seek medical advice. Not a hazard under normal use conditions.

**Skin Contact:** Wash with soap and water. Get medical attention if irritation persists.

**Eye Contact:** In case of contact, immediately flush eyes with plenty of water for at least 15 minutes and get medical attention if irritation persists.

#### 5. FIRE FIGHTING MEASURES

**Flash Point, °C:** Not Applicable

**Autoignition Temperature, °C:** Not Applicable

**Lower Explosive Limit, %:** Not Applicable

**Upper Explosive Limit, %:** Not Applicable

<b>Extinguishing Media:</b>	None - does not burn. Use extinguishing media appropriate for surrounding fire.
<b>Fire Fighting Procedures:</b>	Positive pressure, self-contained breathing apparatus.
<b>Unusual Fire and Explosion Hazards:</b>	Not a fire or explosion hazard. Toxic hydrogen cyanide can be liberated under burning conditions.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Spill Procedures:</b>	Scoop up or vacuum into a container for reclamation or disposal.
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#### 7. HANDLING AND STORAGE

- Material may be slippery when wet.
- Avoid breathing dust.
- Wash thoroughly after handling.
- Avoid contact with eyes.
- Use only with adequate ventilation.
- Ferric Ferrocyanide is stable in slightly acid media and fades in alkaline media.
- Stability should be tested in contemplated formulations.
- Do not treat with ethylene oxide.
- Store in a cool dry place.
- Wear suitable eye protection.

#### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ingredient CAS Number	Weight in Percent (%)	OSHA PEL	ACGIH TLV
Ferric Ferrocyanide 14038-43-8	1.0 - 4.0	None Established	None Established
Mica 12001-26-2	46.0 - 64.0	20 mppcf	3 mg/m <sup>3</sup> (Respirable fraction)
Titanium Dioxide 13463-67-7	35.0 - 50.0	15 mg/m <sup>3</sup> (Total dust)	10 mg/m <sup>3</sup> (Total dust)

Unless otherwise noted, all values are reported as 8-hour Time-Weighted Averages (TWAs) and total dust (particulates only). All ACGIH TLVs refer to the 2006 standards. Unless otherwise noted, all OSHA PELs refer to 29 CFR Part 1910 Air Contaminants: Final Rule, June 30, 1993.

**Personal Protective Equipment:** Safety glasses with side shields. Wear suitable gloves.

**Respiratory Protection:** Use a NIOSH/MSHA approved respirator as necessary to protect from: dust. If respiratory protection is used, follow all requirements for respiratory programs set forth in OSHA regulations (29 CFR 1910.134).

**Ventilation:** General ventilation. Local exhaust ventilation is recommended to control exposures to within applicable limits.

#### 9. PHYSICAL AND CHEMICAL PROPERTIES

Form: Powder  
 Color: Blue with a pale red reflection  
 Odor: Odorless

Boiling Point, °C:  
 Melting Point, °C: Decomposes  
 Density: 3.0Kg/L  
 Bulk Density: 24.0g/100 cc  
 Vapor Pressure: Not Applicable  
 Specific Gravity: 3.0  
 Solubility (in water): Insoluble  
 pH: 2.2-5.0 (4% H<sub>2</sub>O)

## 10. STABILITY AND REACTIVITY

**Stability Data:** Ferric Ferrocyanide is stable in slightly acid media and fades in alkaline media.  
 Stability should be tested in contemplated formulations.

**Conditions/Hazards to Avoid:** None known.

**Incompatibility (Materials to Avoid):** Ferric Ferrocyanide is stable in slightly acid media and fades in alkaline media. Do not treat with ethylene oxide.

**Hazardous Decomposition Products:** Hydrogen cyanide, nitrogen oxides

**Polymerization:** Will not occur.

**Polymerization - Avoid:** None known.

## 11. TOXICOLOGICAL INFORMATION

### Information on Product:

No data available.

### Information on Components:

Ingredient CAS Number	Weight in Percent (%)	Acute Toxicity - Oral	Acute Toxicity - Inhalation	Acute Toxicity - Dermal	Acute Toxicity - Other
Ferric Ferrocyanide 14038-43-8	1.0 - 4.0	Not Available	Not Available	Not Available	Not Available
Mica 12001-26-2	46.0 - 64.0	Not Available	Not Available	Not Available	Not Available
Titanium Dioxide 13463-67-7	35.0 - 50.0	> 5,000 mg/kg (rat)	Not Available	Not Available	Not Available

## 12. ECOLOGICAL INFORMATION

### Information on Product:

**Environmental Fate:**

No data available.

**Ecotoxicological Information:** No data available.

### 13. DISPOSAL CONSIDERATIONS

**US EPA Waste Number:** Not Regulated

**Disposal of Waste Method:** This product, if disposed as received, is a non-hazardous waste. Local disposal laws and regulations will determine the proper waste disposal/recycling/reclamation procedure. Disposal requirements are dependent on the hazard classification and will vary by location and the type of disposal selected.

### 14. TRANSPORT INFORMATION

**International Transport Regulations:**

**ICAO Class:** Not Regulated

**IMO Class:** Not Regulated

**US Transportation Regulations:**

**DOT Classification:** Not Regulated

**Canadian Transportation of Dangerous Goods (TDG):**

**TDG Classification:** Not Regulated

### 15. REGULATORY INFORMATION

**International Inventories:**

**United States:** This product or its ingredients are listed on or compliant with the TSCA Inventory.  
**Canada:** This product or its ingredients are listed on or compliant with the DSL.  
**Europe:** This product or its ingredients are listed on or compliant with EINECS.  
**Japan:** Not Determined  
**Australia:** This product or its ingredients are listed on or compliant with AICS.  
**Korea:** This product or its ingredients are listed on or compliant with the ECL.  
**Philippines:** This product or its ingredients are listed on or compliant with PICCS.  
**China:** This product or its ingredients are listed on or compliant with the IECSC.

**US Federal Regulations:**

Ingredient CAS Number	Weight in Percent (%)	Subject to SARA 313 Reporting
Ferric Ferrocyanide 14038-43-8	1.0 - 4.0	Yes
Mica 12001-26-2	46.0 - 64.0	No
Titanium Dioxide 13463-67-7	35.0 - 50.0	No

**SARA 311/ 312 Hazard Categories:**

Acute Health Hazard

**CAA 602 Ozone Depleting Substances (ODS):**

This product neither contains nor is manufactured with an ozone depleting substance subject to the labeling requirements of the Clean Air Act Amendments 1990 and 40 CFR Part 82.

VOC Content: None

US State Regulations:

VOC Content (CARB): None

Canadian Regulations:

**WHMIS Classification:**

Not Regulated

This product has been classified in accordance with the hazard criteria of the *Controlled Products Regulations* and the MSDS contains all the information required by the *Controlled Products Regulations* .

**16. OTHER INFORMATION**

Revision number: 6

Section(s) Revised in this Version: Section 1: Chemical Product and Company Identification  
Section 16: Other Information

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