# SAFETY DATA SHEET

## Section 1. Identification

**Product identifier** : BAYFERROX 6721 C PIGMENT

**Material Number** : 05546788

**Chemical family** : Inorganic Metal oxide.

**Identified uses** : Inorganic pigment

**Supplier/Manufacturer** : LANXESS Corporation
Product Safety & Regulatory Affairs
111 RIDC Park West Drive
Pittsburgh, PA 15275-1112
USA

For information: US/Canada (800) LANXESS
International +1 412 809 1000

**In case of emergency** : Chemtrec (800) 424-9300
International (703) 527-3887
Lanxess Emergency Phone (800) 410-3063.

## Section 2. Hazards identification

**HAZCOM Standard Status** : This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200).

**Physical state** : Powder.

**Color** : Brown.

**Classification of the substance or mixture** : CARCINOGENICITY - Category 1A

**Hazard pictograms** :

**Signal word** : Danger

**Hazard statements** : May cause cancer.

**Hazard Not Otherwise Classified (HNOC)** : None known.

**Precautionary statements**

**Prevention** : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/clothing and eye/face protection.

**Response** : IF exposed or concerned: Get medical attention.

**Storage** : Store locked up.

**Disposal** : Dispose of contents and container in accordance with all local, regional, national and international regulations.

**Supplemental label elements** : Do not store near sources of heat (furnaces, kilns, boilers, etc.). Exposure to excessive heat may cause this product to become unstable (slowly auto-oxidize) which generates additional heat. Under certain circumstances this heat generation may be sufficient to cause combustible materials to ignite. Do not store near strong oxidizers, sources of heat, or near flammable or combustible materials. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink.

## Section 3. Composition/information on ingredients

**Substance/mixture** : Mixture

| Ingredient name | % | CAS number |
|---|---|---|
| Crystalline Quartz Silica | <1 | 14808-60-7 |

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

**There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health and hence require reporting in this section.**

**Occupational exposure limits, if available, are listed in Section 8.**

## Section 4. First aid measures

### Description of first aid measures

**Eye contact** : Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention.

**Inhalation** : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. If not breathing, if breathing is irregulor or respiratory arrest occurs, provide artifical respiration, or oxygen by a trained professional, using a pocket type respirator.

**Skin contact** : Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Clean shoes thoroughly before reuse.

**Ingestion** : Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

### Potential acute health effects

**Eye contact** : May cause mechanical irritation (abrasion).

**Inhalation** : Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray.

**Skin contact** : May cause mechanical irritation (abrasion).

**Ingestion** : No known significant effects or critical hazards.

### Over-exposure signs/symptoms

**Eye contact** : No specific data.

**Inhalation** : The symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever.

**Skin contact** : No specific data.

**Ingestion** : No specific data.

### Potential chronic health effects

Long-term exposure to high concentrations of dust containing iron oxide can cause a benign condition termed “pulmonary siderosis”. This condition is not associated with any physical impairment of lung function. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis. Suspected of causing cancer.

## Section 4. First aid measures

**Notes to physician** : Treat symptomatically. No specific treatment.

**Protection of first-aiders** : No special measures required.

**See toxicological information (Section 11)**

## Section 5. Fire-fighting measures

**Extinguishing media**

**Suitable extinguishing media** : Use an extinguishing agent suitable for the surrounding fire. In case of fire, use water spray (fog), foam or dry chemical.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : No specific fire or explosion hazard.

**Hazardous thermal decomposition products** : Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
metal oxide/oxides

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment.

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

**Methods and materials for containment and cleaning up** : Move containers from spill area. Approach release from upwind. Avoid dust generation. Do not dry sweep. Vacuum dust with equipment fitted with a HEPA filter and place in a closed, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal. Prevent entry into sewers, water courses, basements or confined areas.

## Section 7. Handling and storage

**Precautions for safe handling**

**Protective measures** : Avoid exposure - obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not ingest. Avoid breathing dust. Use only with adequate ventilation. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse container. Remove contaminated clothing and protective equipment before entering eating areas. Workers should wash hands and face before eating, drinking and smoking. Put on appropriate personal protection equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed.

## Section 7. Handling and storage

**Conditions for safe storage** : Do not store near sources of heat (furnaces, kilns, boilers, etc.). Exposure to excessive heat may cause this product to become unstable (slowly auto-oxidize) which generates additional heat. Under certain circumstances this heat generation may be sufficient to cause combustible materials to ignite. Do not store near strong oxidizers, sources of heat, or near flammable or combustible materials. Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Empty containers retain product residue and can be hazardous. Do not reuse container.

## Section 8. Exposure controls/personal protection

**Occupational exposure limits**

| Ingredient name | Exposure limits |
|---|---|
| Crystalline Quartz Silica | **OSHA PEL Z3 (United States, 6/2016).**<br>TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable<br>TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable<br>**OSHA PEL (United States, 6/2016).**<br>TWA: 50 µg/m³ 8 hours. Form: Respirable dust<br>**ACGIH TLV (United States, 3/2016).**<br>TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction |

If this product contains ingredients with exposure limits, personal, workplace atmosphere or biological monitoring may be required to determine the effectiveness of the ventilation or other control measures and/or the necessity to use respiratory protective equipment.

**Appropriate engineering controls** : Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Personal protection**

**Hygiene measures** : Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

**Respiratory protection** : The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. NIOSH approved, air-purifying particulate respirator with N-95 filters.

**Skin protection** : Permeation resistant clothing and foot protection. Permeation resistant gloves.

**Eye/face protection** : Protective goggles with side shield or tightly fitting protective goggles

**Medical Surveillance** : Not available.

## Section 9. Physical and chemical properties

| | | |
|---|---|---|
| **Physical state** | : | Solid. [Powder.] |
| **Color** | : | Brown. |
| **Odor** | : | Odorless. |
| **Odor threshold** | : | Not available. |
| **pH** | : | 5 to 8 [Conc. (% w/w): 5%] |
| **Boiling point** | : | Not available. |
| **Melting point** | : | >1000°C (>1832°F) |
| **Flash point** | : | Not available. |
| **Evaporation rate** | : | Not available. |
| **Explosion limits** | : | Not available. |
| **Vapor pressure** | : | Not available. |
| **Specific gravity (Relative density)** | : | 5 |
| **Bulk density** | : | 500 to 1000 kg/m³ |
| **Solubility in water** | : | Very slightly soluble in the following materials: cold water |
| **Partition coefficient: n-octanol/water** | : | Not available. |
| **Vapor density** | : | Not available. |
| **Viscosity** | : | Not available. |
| **Auto-ignition temperature** | : | Not available. |
| **Decomposition temperature** | : | >120°C |

## Section 10. Stability and reactivity

| | | |
|---|---|---|
| **Reactivity** | : | No specific test data related to reactivity available for this product or its ingredients. |
| **Chemical stability** | : | The product is stable. |
| **Possibility of hazardous reactions** | : | Under normal conditions of storage and use, hazardous reactions will not occur. |
| **Conditions to avoid** | : | Excessive temperatures. At temperatures greater than 176 F (80 C), this product may become unstable and slowly auto-oxidize into Fe2O3 which generates additional heat. Under certain conditions this heat may be sufficient to cause combustible materials to ignite. |
| **Incompatible materials** | : | acids, ammonium salts, fluorine, mercury, hydrogen |
| **Hazardous decomposition products** | : | Under normal conditions of storage and use, hazardous decomposition products should not be produced. |

## Section 11. Toxicological information

| | | |
|---|---|---|
| **Information on the likely routes of exposure** | : | Dermal contact. Eye contact. Inhalation. Ingestion. |

**Potential acute health effects**

| | | |
|---|---|---|
| **Eye contact** | : | May cause mechanical irritation (abrasion). |
| **Inhalation** | : | Exposure to Silica, Quartz can cause a very serious lung disease called Silicosis with cough, shortness of breath, and changes in chest x-ray. |
| **Skin contact** | : | May cause mechanical irritation (abrasion). |
| **Ingestion** | : | No known significant effects or critical hazards. |

**Symptoms related to the physical, chemical and toxicological characteristics**

| | | |
|---|---|---|
| **Eye contact** | : | No specific data. |
| **Inhalation** | : | The symptoms of silicosis may include: Shortness of breath, coughing, wheezing, fatigue, chest pain, loss of appetite and fever. |
| **Skin contact** | : | No specific data. |
| **Ingestion** | : | No specific data. |

# Section 11. Toxicological information

## Potential chronic health effects

### Short term exposure

**Potential immediate effects** : Not available.

### Long term exposure

**Potential delayed effects** : Not available.

**General** : Long-term exposure to high concentrations of dust containing iron oxide can cause a benign condition termed “pulmonary siderosis”. This condition is not associated with any physical impairment of lung function. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Excessive exposure to airborne crystalline silica can cause fibrotic lung damage, with scarring of the lungs with cough and shortness of breath. This is called "Silicosis". This is generally a slowly developing fibrotic disease as symptoms are usually delayed for 10 years or more. Symptoms are dyspnea, chest pain, breathlessness, and cough. The chronic lung scarring developed from the silica dust causes a progressive massive fibrosis. This may lead to increased susceptibility to tuberculosis. Suspected of causing cancer.

**Carcinogenicity** : May cause cancer. Risk of cancer depends on duration and level of exposure.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## Information on toxicological effects

**No applicable toxicity data**

### Mutagenicity

| Product/ingredient name | Test | Experiment | Result |
|---|---|---|---|
| Crystalline Quartz Silica | Sister chromatid exchange assay | Experiment: In vivo<br>Subject: Mammalian-Animal<br>Cell: Somatic | Negative |

**Conclusion/Summary** : Crystalline Quartz Silica:No mutagenic effect.

### Carcinogenicity

| Product/ingredient name | CAS # | IARC | NTP | OSHA |
|---|---|---|---|---|
| Crystalline Quartz Silica | 14808-60-7 | 1 Carcinogenic to humans | Proven. | Not classified. |

### Specific target organ toxicity (single exposure)

| Name | Category | Route of exposure | Target organs |
|---|---|---|---|
| Crystalline Quartz Silica | Category 3 | Not applicable. | Respiratory tract irritation |

### Acute toxicity estimates

| Route | ATE value (Acute Toxicity Estimates) |
|---|---|
| Not available. | |

# Section 12. Ecological information

## Toxicity

Not available.

**Conclusion/Summary** : Not available.

## Persistence and degradability

**Conclusion/Summary** : Not available.

## Section 12. Ecological information

**Bioaccumulative potential**

Not available.

**Mobility in soil**

**Soil/water partition coefficient ($K_{OC}$)** : Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Waste disposal should be in accordance with existing federal state, provincial and or local environmental controls laws.

**RCRA classification** : If discarded in its purchased form, this product would not be a hazardous waste either by listing or by characteristic. However, under RCRA, it is the responsibility of the product user to determine at the time of disposal, whether a material containing the product or derived from the product should be classified as a hazardous waste. (40 CFR 261.20-24)

## Section 14. Transport information

| Regulatory information | UN number | Proper shipping name | Classes | PG* | Label | Additional information |
|---|---|---|---|---|---|---|
| DOT Classification | - | - | - | - | | Not regulated. |
| IMDG Class | - | - | - | - | | Not regulated. |
| IATA-DGR Class | - | - | - | - | | Not regulated. |

PG* : Packing group

**RQ** : 0 lbs

## Section 15. Regulatory information

**SARA 311/312** : Immediate (acute) health hazard
Delayed (chronic) health hazard

**SARA Title III Section 302 Extremely Hazardous Substances** : None

**SARA Title III Section 313 Toxic Chemicals** :

| Ingredient name | CAS number | Concentration (%) |
|---|---|---|
| C.I. Pigment Yellow 119 | 68187-51-9 | ≤5 |

**US EPA CERCLA Hazardous Subtances (40 CFR 302.4)** :

| Ingredient name | CAS number | RQ |
|---|---|---|
| C.I. Pigment Yellow 119 | 68187-51-9 | Included in the regulation but with no data values. See regulation for further details. |

**State regulations**

## Section 15. Regulatory information

The following chemicals are specifically listed by individual states; other product specific health and safety data in other sections on the SDS may also be applicable for state requirements. For details on your regulatory requirements you should contact the appropraite agency in your state.

| Ingredient name | CAS number | State Code | Concentration (%) |
|---|---|---|---|
| calcium carbonate | 1317-65-3 | MA - S, NJ - HS, PA - RTK HS | 50 - 75 |
| Iron (III) Oxide | 1309-37-1 | MA - S, NJ - HS, PA - RTK HS | 10 - ≤25 |
| C.I. Pigment Yellow 119 | 68187-51-9 | NJ - HS, PA - RTK HS | ≤5 |
| Crystalline Quartz Silica | 14808-60-7 | NJ - HS, PA - RTK HS | <1 |
| C.I. Pigment Yellow 42 | 51274-00-1 | | 25 - 50 |
| C.I. Pigment Black 11 | 1317-61-9 | | ≤5 |

Massachusetts Substances: MA - S
Massachusetts Extraordinary Hazardous Substances: MA - Extra HS
New Jersey Hazardous Substances: NJ - HS
Pennsylvania RTK Hazardous Substances: PA - RTK HS
Pennsylvania Special Hazardous Substances: PA - Special HS

**California Prop. 65**

**WARNING:** This product contains a chemical known to the State of California to cause cancer.

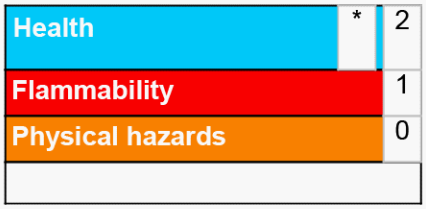
Potential exposure to some or all of the California Proposition 65 chemicals in this product have been determined to be below the No Significant Risk Level (NSRL)

| Ingredient name | CAS # | Concentration (%) | Cancer | Reproductive |
|---|---|---|---|---|
| Crystalline Quartz Silica | 14808-60-7 | <1 | Yes | |

**U.S. Toxic Substances Control Act** : Listed on the TSCA Inventory.

## Section 16. Other information

**Hazardous Material Information System** :




**0=Insignificant 1=Slight 2=Moderate 3=High 4=Extreme**
***=Chronic**

**The customer is responsible for determining the PPE code for this material. HMIS® ratings are to be used with a fully implemented HMIS® program. HMIS® is a registered mark of the National Paint & Coatings Association (NPCA). HMIS® materials may be purchased exclusively from J. J. Keller (800) 327-6868.**

**National Fire Protection Association (U.S.A.)** :


**0= Minimal 1=Slight 2=Moderate 3=Serious 4=Severe**

**Our method of hazard communication is comprised of Product Labels and Safety Data Sheets. HMIS and NFPA ratings are provided as a customer service.**

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## Section 16. Other information

**Date of issue** : 05-23-2017

**Date of previous issue** : 08-29-2016

**Version** : 2

Product Safety and Regulatory Affairs

**Indicates information that has changed from previously issued version.**

**Notice to reader**

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