Revision Date 19-November-2018
Revision 06
Supersedes Date 27-August-2018

Buff / Blonde EP

SAFETY DATA SHEET
HITOX® STD, ULX, AND SF

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Name	HITOX® STD, ULX, and SF
Grades	STD, ULX, and SF

1.2. Relevant identified uses of the substance or mixture and uses advised against

Identified uses	Pigment, used in paints and plastics.
Uses Advised Against	Any use other than those identified.

1.3. Details of the supplier of the safety data sheet

Supplier:

TOR Minerals International, Inc.
722 Burleson St.
Corpus Christi, Texas 78402
Tel +1-361-883-5591 Fax: +1-361-883-7616
sales@torminerals.com

1.4. Emergency telephone number

TOR Minerals International Inc. +1-361-883-5591

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)

Physical and Chemical Hazards	Not classified.
Human health	Not classified.
Environment	Not classified.
Classification (67/548/EEC)	Not classified.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Human health:	Dust may irritate the eyes and respiratory system.
Environment:	The product is not expected to be hazardous to the environment.

2.2. Label elements

Label In Accordance With (EC) No. 1272/2008

No pictogram required.

Precautionary Statements

P261	Avoid breathing dust.
P273	Avoid release to the environment.
P314	Get medical advice/attention if you feel unwell.
P391	Collect spillage.
P501A	Dispose of contents/container in accordance with local authority requirements.

2.3. Other hazards

None.

SECTION 3: COMPOSITION/INFORMATON INGREDIENTS

3.1. Mixtures

Rutile titanium dioxide CAS-No.: 1317-80-2 EC No: 215-282-2		>94%
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.	

Amorphous silica CAS-No.: 7631-86-9 EC No: 231-545-4		1.25%
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.	

Ferric oxide CAS-No.: 1309-37-1 EC No: 215-168-2		1.9%
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Not classified.	

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Inhalation

Move the exposed person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion

Rinse mouth thoroughly and give plenty of water to drink. Seek medical advice if necessary.

Skin Contact

Clean by mechanical dry removal. Subsequently rinse with water.

Eye Contact

Immediately flush with plenty of water or eyewash solution for up to 10 minutes. Contact physician if irritation persists.

4.2. Most important symptoms and effects, both acute and delayed

None.

4.3. Indication of any immediate medical attention and special treatment needed

None

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing Media

The product is not flammable. Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards

None known.

Specific Hazards

Take precautionary measures against static discharges.

5.3. Advice for firefighters

Protective equipment for firefighters

Wear self-contained breathing apparatus and full protective clothing. Keep all unnecessary people away. Fire water run-off must not be allowed to contaminate ground or enter drains, sewers, or water courses. Provide bunding against fire water run-off.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Wear protective clothing (see Section 8). Avoid inhalation of dust.

6.2. Environmental precautions

No special environmental precautions required.

6.3. Methods and material for containment and cleaning up

Take up mechanically. Dispose of absorbed material in accordance within local regulations.

6.4. Reference to other sections

For waste disposal, see section 13..

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Advise on safe handling

Avoid inhalation of dust and contact with skin and eyes.

Advise on fire and explosion protection

Not applicable.

7.2. Conditions for safe storage, including any incompatibilities

Dry storage at moderate temperatures

7.3. Specific end use(s)

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

See product information

8.1. Control parameters

Name	STD	TWA – 8 Hrs		STEL – 15 Min		Notes
Ferric oxide	WEL		5 mg/m³		10 mg/m³	As Fe
Amorphous silica	WEL		2.4 mg/m³			
Rutile titanium dioxide	WEL		10 mg/m³			

WEL = Workplace Exposure Limit

Ingredient Comments

WEL = Workplace Exposure Limits COSHH – see note section 16.

8.2. Exposure controls

Technical

Avoid dust formation.

Engineering Measures

Provide adequate general and local exhaust ventilation.

Respiratory equipment

If ventilation is insufficient, suitable respiratory equipment must be provided.

Hand protection
Wear suitable protective gloves conforming to EN 374.

Eye protection
Wear approved safety goggles.

Other Protection
Provide eyewash station and safety shower.

Hygiene measures
When using do not eat, drink, or smoke.

Environmental
No special exposure controls require

SECTION 9: PHYSICAL AND CHEMICAL PROTERTIES

9.1. Information on basic physical and chemical properties

Appearance	Powder, dust.
Colour	Beige.
Odour	Odourless
Solubility	Insoluble in water.
Initial Boiling Point and Boiling Range:	2500 – 3000°C.
Melting Point (°C)	1840°C.
Relative Density	4.1
Ph-Value, Diluted Solution	6.5 – 7.5 @ 10% sluirry in water.

9.2. Other information
None.

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
None.

10.2. Chemical stability
Stable under normal conditions of storage and use. See section 7.

10.3. Possibility of hazardous reactions
Hazardous Polymerisation
Will not polymerise.

10.4. Conditions to avoid
Not known.

10.5. Incompatible materials
Materials to Avoid
None known.

10.6. Hazardous decomposition products
No hazardous decomposition products.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Toxicological information
Health effects of this preparation as supplied have not been fully determined. The information below should be regarded as precautionary.

Inhalation

Dust may irritate respiratory system or lungs. Pre-existing respiratory conditions may be aggravated by inhalation of dust.

Ingestion

May cause discomfort if swallowed.

Skin contact

Powder may irritate skin. Not a skin sensitizer.

Eye contact

Particles in the eyes may cause irritation.

Carcinogenicity

In lifetime inhalation studies of rats, respirable size titanium dioxide (TiO_2) particles were shown to cause an increase in lung tumors at an exposure level that caused lung overload and inflammation. Tests with other animals indicate that rats respond more severely than other rodents. These tumors were found to only occur in overload conditions, were unique to the rat and were found to have little or no relevance to humans. In 2006, the IARC has characterized TiO2 as a possible carcinogen to humans (Group 2B) through inhalation (not ingestion). The NTP and OSHA have not characterized TiO2 as a carcinogen.

Occupational exposure to TiO2 based on epidemiology studies does not indicate an increased risk of cancer in humans.

SECTION 12: ECOLOGICAL INFORMATION

Ecotoxicity

The product components are not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

12.1. Toxicity

Oral

Rat

No Toxicological effects found.

12.2. Persistence and degradability

Degradability

The product solely consists of inorganic compounds which are not biodegradable. The remaining substances of the product are expected to be not readily biodegradable.

12.3. Bioaccumulative potential

Bioaccumulative Potential

Bioaccumulative is unlikely to be significant because of the lower water solubility of this product.

12.4. Mobility in soil

Mobility

The product contains substances which are insoluble in water and which sediment in water systems.

12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

12.6. Other adverse effects

None.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements.

SECTION 14: TRANSFORMATION INFORMATION

General

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number

Not applicable.

14.2 UN Proper shipping name

Not applicable.

14.3 Transport hazard class(es)

None

14.4. Packing group

Not applicable.

14.5. Environmental hazards

None.

14.6. Special precautions for user

See section 6 and 8

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

No hazardous goods

SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

EINECS (EU) Status	: On the inventory, or in compliance with the inventory
AICS (AU) Status	: On the inventory, or in compliance with the inventory
DSL (CA) Status	: On the inventory, or in compliance with the inventory
ENCS (JP) Status	: On the inventory, or in compliance with the inventory
KECI (KR) Status	: On the inventory, or in compliance with the inventory
PICCS (PH) Status	: On the inventory, or in compliance with the inventory
IECSC (CN) Status	: On the inventory, or in compliance with the inventory
ISHL (JP) Status	: On the inventory, or in compliance with the inventory
NZIOC Status	: On the inventory, or in compliance with the inventory
HSNO (NZ) Status	: On the inventory, or in compliance with the inventory
TSCA Status	: On the inventory, or in compliance with the inventory

15.2. Chemical Safety Assessment

A chemical safety assessment has been carried out.

SECTION 16: OTHER INFORMATION

None.

TOR Minerals International, Inc. · 722 Burleson St. · Corpus Christi, Texas 78402 · USA · Tel +1-361-883-5591 · www.torminerals.com

FICHE DE DONNEES DE SECURITE Conforme au règlement (CE) n°1907/2006 (REACH),n°2015/830

SAFETY DATA SHEET

Rubrique 1 :IDENTIFICATION OF THE SUBSTANCE, THE PREPARATION AND THE COMPANY

1.1 Identification of the substance

BURNT SIENNA

1.2Relevant identified uses of the substance or mixture and uses advised against

Coloring material for building materials and use of creative hobbies

1.3Manufacturer information

STE DES OCRES DE France
Impasse des Ocriers
84400 – APT – France
www.ocresdefrance.fr

1.3 emergency number

www.centres-antipoison.net 01 40 05 48 48 (centre anti-poison)

Rubrique 2 : IDENTIFICATION OF RISKS

2.1 classification of the substance or mixture in accordance with Regulation (EC) No 1272/2008 and its adjustments.

This substance is not classified as dangerous according to Directive 67/548 / EEC and its amendments.
For more details on health consequences and symptoms, see section 11.

2.2 labeling elements in accordance with Regulation (EC) No 1272/2008 and its adaptations.

No labeling element is required

2.3 Another dangers

The substance does not meet the criteria for PBT or vPvB substances according to Annex XIII of REACH Regulation (CE) No 1907/2006

Rubrique 3: COMPOSITION / INFORMATION ON COMPONENTS

CI : R102
Composition : SiO_2 +Al_2O_3+Fe_2O_3
Substance/ préparation : substance
Numéros cas : no
Numéros einecs : no
To the present knowledge of the supplier, this product does not contain any ingredients that are hazardous to require a statement in this section, in accordance with EU regulations or national regulations.
REACH: the substance is not subject to REACH according to Annex V

Rubrique 4: FIRST AID

Transport the person to the fresh air. In case of fainting, place the person in a lateral safety position.
Immediately flush eyes with plenty of water, occasionally lifting the eyelids. Check if the victim wears contact lenses and in this case remove them.
If irritation occurs, consult a doctor.

Rubrique 5: FIRE FIGHTING MEASURES

The substance is not flammable. In case of fire, spray with water (in fog), foam, dry chemical or carbon dioxide.

Rubrique 6: MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL RELEASE

Provide adequate ventilation. Put on appropriate personal protective equipment.
Avoid dispersal and spillage of the spilled product and contact with soil, surrounding aquatic environment, sewers or drains.

Rubrique 7: HANDLING AND STORAGE

No special measures required

Rubrique 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Wash hands, forearms and face after handling product.
Recommended: dust mask
Avoid contact with eyes. Use eye protection in accordance with an approved standard
Personal protective equipment for the body should be selected according to the task to be performed and the risks involved.

Rubrique 9: PHYSICAL AND CHEMICAL PROPERTIES

general informations
Physical state: powder
Color : red/brown
Odor: odorless
PH: 7
Melting point: not available
Bulk density: 830 g / l
Solubility: insoluble

Rubrique 10: STABILITY AND REACTIVITY

The product is stable
Under normal conditions of storage and use, no hazardous decomposition products should appear.

Rubrique 11: TOXICOLOGICAL INFORMATION

Any effects of chronic toxicity or sensitization are virtually excluded by
that his natural earth is the calcination of sienna naturelle, which is a natural mineral of the earth's surface and, in the dissolved state, a natural constituent of water in nature and that his

Rubrique 12: ECOLOGICAL INFORMATION

Sienne calcinée is the calcination of sienna naturelle which is, in the solid state, a mineral constituent, natural of the earth. In the dissolved state, the substance is a natural constituent of water in nature. Therefore, adverse effects on the environment can be excluded. His own can not be biodegraded.

Rubrique 13: CONSIDERATIONS RELATING TO ELIMINATION

In general: Check the suitability of the product for reuse. Uncleaned waste and uncleaned packaging must be packed or closed, labeled and disposed of at a destruction or recycling center in accordance with the national legislation in force. Consult the manufacturer in case of large quantities. If uncleaned empty containers are forwarded, inform the consignee of the possible risks due to the residues of the product. For disposal within the EU, use the waste code in force according to the European Waste List (LED). All waste producers are required, among other things, to classify their waste according to the category and process code of the European Waste List (LED).

To the present knowledge of the supplier, this product is not considered a hazardous waste as defined by EU Directive 91/689 / EEC

Rubrique 14: TRANSPORT

This product is not subject to labeling. No special conditions

Rubrique 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

- Classification and labeling information in section 2:
The following regulations have been taken into account:
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 487/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 758/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 944/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 605/2014
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 1297/2014
- Information about the packaging:
No data available.
- Particular dispositions :
No data available.

15.2. Chemical safety assessment

No data available.

Rubrique 16: ANOTHER INFORMATIONS

Abréviations :

ADR : Accord européen relatif au transport international de marchandises Dangereuses par la Route.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
OACI : Organisation de l'Aviation Civile Internationale.
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
PBT : Persistante, bioaccumulable et toxique.
vPvB : Très persistante et très bioaccumulable.
SVHC : Substance of Very High Concern

Historical
Date of publication: April 2018
Date of the previous edition: October 2015

Burnt Amber X+D

SAFETY DATA SHEET

LANXESS
Energizing Chemistry

Section 1. Identification

Product identifier	:	638 F
Material Number	:	05549574
Chemical family	:	iron 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	:	SKIN IRRITATION - Category 2 EYE IRRITATION - Category 2A CARCINOGENICITY - Category 1A TOXIC TO REPRODUCTION (Fertility) - Category 2 SPECIFIC TARGET ORGAN TOXICITY (SINGLE EXPOSURE) (Respiratory tract irritation) - Category 3 SPECIFIC TARGET ORGAN TOXICITY (REPEATED EXPOSURE) (central nervous system (CNS) and lungs) - Category 2 Percentage of the mixture consisting of ingredient(s) of unknown toxicity: 54.1%
Hazard pictograms	:	
Signal word	:	Danger
Hazard statements	:	Causes serious eye irritation. Causes skin irritation. May cause cancer. Suspected of damaging fertility. May cause respiratory irritation. May cause damage to organs through prolonged or repeated exposure. (central nervous system (CNS), lungs)
Hazard Not Otherwise Classified (HNOC)	:	Causes digestive tract burns.
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. Use only in a well-ventilated area. Do not breathe dust or mist. Wash hands thoroughly after handling.

ection 2. Hazards identification

Response : Get medical attention if you feel unwell. IF exposed or concerned: Get medical attention. IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF ON SKIN: Wash with plenty of soap and water. Take off contaminated clothing. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical attention. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: 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 taste or swallow. Wash thoroughly after handling. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials and food and drink. Corrosive to digestive tract

Section 3. Composition/information on ingredients

Substance/mixture : Mixture

Ingredient name	%	CAS number
Umber	25 - 50	12713-03-0
Manganese Oxide	10 - ≤25	1313-13-9
Crystalline Quartz Silica	10 - ≤25	14808-60-7
Manganese	≤10	7439-96-5
aluminum Oxide.	≤5	1344-28-1
Magnesium oxide	≤5	1309-48-4
Calcium Oxide	<3	1305-78-8

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 : Check for and remove any contact lenses. Get medical attention. In case of contact, flush eyes with plenty of water for at least 20 minutes. Use fingers to ensure that eyelids are separated and that the eye is being irrigated.

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. In case of contact, flush skin with plenty of water for at least 20 minutes.

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

ection 4. First aid measures

Eye contact	: Causes serious eye irritation.
Inhalation	: May cause respiratory irritation.
Skin contact	: Causes skin irritation.
Ingestion	: Corrosive to the digestive tract. Causes burns. Irritating to mouth, throat and stomach.

Over-exposure signs/symptoms

Eye contact	: Causes irritation with symptoms of reddening, tearing, stinging, and swelling.
Inhalation	: May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
Skin contact	: Causes irritation with symptoms of reddening, itching, and swelling.
Ingestion	: Corrosive with symptoms of coughing, burning, ulceration, and pain. May cause irritation; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Potential chronic health effects

May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Suspected of causing cancer. Suspected of damaging fertility.

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: 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).

ection 6. Accidental release measures

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. Avoid exposure during pregnancy. Do not handle until all safety precautions have been read and understood. Do not get in eyes or on skin or clothing. Do not breathe dust. Do not ingest. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. 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.

Conditions for safe storage : 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
Umber	**OSHA PEL (United States, 6/2016).** CEIL: 5 mg/m³, (as Mn) **ACGIH TLV (United States, 3/2016).** TWA: 0.1 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction TWA: 0.02 mg/m³, (as Mn) 8 hours. Form: Respirable fraction
Manganese Oxide	**ACGIH TLV (United States, 3/2016).** TWA: 0.1 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction TWA: 0.02 mg/m³, (as Mn) 8 hours. Form: Respirable fraction **OSHA PEL (United States, 6/2016).** CEIL: 5 mg/m³, (as Mn)
Crystalline Quartz Silica	**OSHA PEL Z3 (United States, 6/2016).** TWA: 250 mppcf / (%SiO2+5) 8 hours. Form: Respirable TWA: 10 mg/m³ / (%SiO2+2) 8 hours. Form: Respirable **OSHA PEL (United States, 6/2016).** TWA: 50 µg/m³ 8 hours. Form: Respirable dust **ACGIH TLV (United States, 3/2016).** TWA: 0.025 mg/m³ 8 hours. Form: Respirable fraction
Manganese	**OSHA PEL (United States, 6/2016).**

ection 8. Exposure controls/personal protection

	CEIL: 5 mg/m³, (as Mn) Form: Fume **ACGIH TLV (United States, 3/2016).** TWA: 0.1 mg/m³, (as Mn) 8 hours. Form: Inhalable fraction TWA: 0.02 mg/m³, (as Mn) 8 hours. Form: Respirable fraction
aluminum Oxide,	**ACGIH TLV (United States, 3/2016).** TWA: 1 mg/m³ 8 hours. Form: Respirable fraction **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³ 8 hours. Form: Respirable fraction TWA: 15 mg/m³ 8 hours. Form: Total dust
Magnesium oxide	**ACGIH TLV (United States, 3/2016).** TWA: 10 mg/m³ 8 hours. Form: Inhalable fraction **OSHA PEL (United States, 6/2016).** TWA: 15 mg/m³ 8 hours. Form: Total particulates
Calcium Oxide	**ACGIH TLV (United States, 3/2016).** TWA: 2 mg/m³ 8 hours. **OSHA PEL (United States, 6/2016).** TWA: 5 mg/m³ 8 hours.

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 : Wear suitable protective clothing and gloves. Suitable protective footwear.

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 : Not available.

Boiling point : Not available.

Melting point : Not available.

ection 9. Physical and chemical properties

Flash point	:	Closed cup: Not applicable.
Evaporation rate	:	Not available.
Explosion limits	:	Not available.
Vapor pressure	:	Not available.
Specific gravity (Relative density)	:	Not available.
Bulk density	:	300 to 1000 kg/m³
Solubility in water	:	Not available.
Partition coefficient: n-octanol/water	:	Not available.
Vapor density	:	Not available.
Viscosity	:	Dynamic: Not applicable.
Auto-ignition temperature	:	Not applicable.
Decomposition temperature	:	Not available.

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	:	No specific data.
Incompatible materials	:	No specific data.
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	:	Causes serious eye irritation.
Inhalation	:	May cause respiratory irritation.
Skin contact	:	Causes skin irritation.
Ingestion	:	Corrosive to the digestive tract. Causes burns. Irritating to mouth, throat and stomach.

Symptoms related to the physical, chemical and toxicological characteristics

Eye contact	:	Causes irritation with symptoms of reddening, tearing, stinging, and swelling.
Inhalation	:	May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.
Skin contact	:	Causes irritation with symptoms of reddening, itching, and swelling.
Ingestion	:	Corrosive with symptoms of coughing, burning, ulceration, and pain. May cause irritation; Symptoms may include abdominal pain, nausea, vomiting, and diarrhea.

Potential chronic health effects

Short term exposure

Potential immediate effects : Not available.

Long term exposure

Potential delayed effects : Not available.

General : May cause damage to organs through prolonged or repeated exposure. Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation. Suspected of causing cancer. Suspected of damaging fertility.

ection 11. Toxicological information

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 : Suspected of damaging fertility.

Information on toxicological effects

Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	Test
Manganese Oxide	LD50 Oral	Rat	3478 mg/kg	-	-
Manganese	LD50 Oral	Rat	>5000 mg/kg	-	-
aluminum Oxide.	LD50 Oral	Rat	>5000 mg/kg	-	OECD 401 Acute Oral Toxicity
Magnesium oxide	LD50 Oral	Rat	>5000 mg/kg	-	-
Calcium Oxide	LD50 Oral	Rat - Female	>2000 mg/kg	-	OECD 425 Acute Oral Toxicity: Up-and-Down Procedure
Calcium Oxide	LD50 Dermal	Rabbit - Female	>2500 mg/kg	-	402 Acute Dermal Toxicity *

Conclusion/Summary : Calcium Oxide:* Dosage caused no mortality

Irritation/Corrosion

Product/ingredient name	Result	Species	Score	Exposure	Observation	Reversibility
Calcium Oxide	Eyes - Cornea opacity	Rabbit	4	1 hours	-	Not reversible
	Eyes - Redness of the conjunctivae	Rabbit	2	1 hours	-	Not reversible
	Skin - Edema	Rabbit	0 to 1	4 hours	14 days	Not reversible
	Skin - Erythema/Eschar	Rabbit	2	4 hours	14 days	Not reversible

Conclusion/Summary

Skin : aluminum Oxide.:Non-irritating (Rabbit) ; OECD 404 Acute Dermal Irritation/Corrosion
Magnesium oxide:Slight irritant
Calcium Oxide:Irritant

Eyes : aluminum Oxide.:Non-irritating (Rabbit) ; OECD 405 Acute Eye Irritation/Corrosion
Magnesium oxide:Slight irritant
Calcium Oxide:Causes serious eye damage.

Respiratory : Calcium Oxide:Irritant

Sensitization

Product/ingredient name	Route of exposure	Species	Result
aluminum Oxide.	skin	Guinea pig	Not sensitizing

Chronic toxicity

ection 11. Toxicological information

Product/ingredient name	Result	Species	Dose	Exposure
Manganese Oxide	Sub-acute LCLo Inhalation Dusts and mists	Rat	68 mg/m³	10 days; 6 hours per day
	Chronic NOAEL Inhalation Vapor	Mammal - species unspecified	1 mg/m³	9 months
Magnesium oxide	Chronic NOAEL Inhalation Vapor	Rat	<1120 µg/m³	29 days

Mutagenicity

Product/ingredient name	Test	Experiment	Result
Crystalline Quartz Silica	Sister chromatid exchange assay	Experiment: In vivo Subject: Mammalian-Animal Cell: Somatic	Negative
aluminum Oxide.	Ames test Salmonella typhimurium	Experiment: In vitro Subject: Bacteria	Negative
Calcium Oxide	OECD 471 Bacterial Reverse Mutation Test	Experiment: In vitro Subject: Bacteria Metabolic activation: +/-	Negative

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

Carcinogenicity

Product/ingredient name	CAS #	IARC	NTP	OSHA
Umber	12713-03-0	Not classified.	Not classified.	Not classified.
Manganese Oxide	1313-13-9	Not classified.	Not classified.	Not classified.
Crystalline Quartz Silica	14808-60-7	1 Carcinogenic to humans	Proven.	Not classified.
Manganese	7439-96-5	Not classified.	Not classified.	Not classified.
aluminum Oxide.	1344-28-1	Not classified.	Not classified.	Not classified.
Magnesium oxide	1309-48-4	Not classified.	Not classified.	Not classified.
Calcium Oxide	1305-78-8	Not classified.	Not classified.	Not classified.

Reproductive toxicity

Product/ingredient name	Effects	Species	Dose	Exposure
aluminum Oxide.	No evidence of risk to humans.	Rat	Inhalation	2 years
Calcium Oxide	-	Mouse	Oral: 440 mg/kg NOAEL	10 days

Teratogenicity

Product/ingredient name	Result	Species	Dose	Exposure
Calcium Oxide	Negative - Oral	Rat	680 mg/kg NOAEL	-

Specific target organ toxicity (single exposure)

Name	Category	Route of exposure	Target organs
Manganese Oxide	Category 3	Not applicable.	Respiratory tract irritation
Crystalline Quartz Silica	Category 3	Not applicable.	Respiratory tract irritation
aluminum Oxide.	Category 3	Not applicable.	Respiratory tract irritation
Magnesium oxide	Category 3	Not applicable.	Respiratory tract irritation
Calcium Oxide	Category 3	Not applicable.	Respiratory tract irritation

ection 11. Toxicological information

Specific target organ toxicity (repeated exposure)

Name	Category	Route of exposure	Target organs
Umber	Category 2	Not determined	central nervous system (CNS)
Manganese Oxide	Category 2	Not determined	central nervous system (CNS)
Manganese	Category 2	Not determined	central nervous system (CNS)
aluminum Oxide.	Category 2	Inhalation	lungs

Acute toxicity estimates

Route	ATE value (Acute Toxicity Estimates)
Oral	10595.4 mg/kg

Section 12. Ecological information

Toxicity

Product/ingredient name	Test	Result	Species	Exposure
Manganese Oxide	OECD 201 Alga, Growth Inhibition Test	Acute EC50 >0.07 mg/l Highest producible concentration, Fresh water	Algae	72 hours
	OECD 202 *Daphnia* sp. Acute Immobilization Test	Acute EC50 >0.0735 mg/l Highest producible concentration. Fresh water	Daphnia - Daphnia magna	48 hours
	OECD 209 Activated Sludge, Respiration Inhibition Test	Acute EC50 >1000 mg/l Fresh water	Micro-organism - adapted and activated sludge micro-organism	3 hours
	OECD 203 Fish, Acute Toxicity Test	Acute LC50 >0.05 mg/l Highest producible concentration. Fresh water	Fish - Oncorhynchus mykiss	96 hours
	OECD 211 *Daphnia Magna* Reproduction Test	Chronic NOEC 0.00735 mg/l Fresh water	Daphnia - Ceriodaphnia dubia	8 days
Manganese	-	Acute LC50 >1000 mg/l	Fish - Leuciscus idus	48 hours
aluminum Oxide.	OECD 201 Alga, Growth Inhibition Test	Acute EC50 >100 mg/l	Algae - Selenastrum capricornutum	72 hours
	OECD 202 *Daphnia* sp. Acute Immobilization Test	Acute EC50 >100 mg/l	Daphnia - Daphnia magna	48 hours
	OECD 203 Fish, Acute Toxicity Test	Acute LC50 >100 mg/l	Fish - Salmo trutta	96 hours
Calcium Oxide	OECD 201 Freshwater Alga and Cyanobacteria, Growth Inhibition Test*	Acute EC50 184.57 mg/l	Algae - Pseudokirchneriella subcapitata	72 hours
	OECD 202 *Daphnia* sp. Acute Immobilization Test *	Acute EC50 49.1 mg/l	Daphnia - Daphnia magna	48 hours
	OECD 209 Activated Sludge, Respiration Inhibition Test*	Acute IC10 300.4 mg/l	Bacteria	3 hours
	OECD 203 Fish,	Acute LC50 50.6 mg/l Fresh	Fish -	96 hours

Section 12. Ecological information

	Acute Toxicity Test * OECD 201 Freshwater Alga and Cyanobacteria, Growth Inhibition Test*	water Chronic IC10 79.22 mg/l	Oncorhynchus mykiss Algae - Pseudokirchneriella subcapitata	72 hours

Conclusion/Summary : Not available.

Persistence and degradability

Conclusion/Summary : Not available.

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 : 2591 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

Ingredient name	CAS number	Concentration (%)

Section 15. Regulatory information

SARA Title III Section 313 Toxic Chemicals :

Umber	12713-03-0	25 - 50
Manganese Oxide	1313-13-9	10 - ≤25
Manganese	7439-96-5	≤10

US EPA CERCLA Hazardous Subtances (40 CFR 302.4) :

Ingredient name	CAS number	RQ
Manganese Oxide	1313-13-9	Included in the regulation but with no data values. See regulation for further details.
Umber	12713-03-0	Included in the regulation but with no data values. See regulation for further details.

State regulations

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 (%)
Crystalline Quartz Silica	14808-60-7	MA - S, NJ - HS, PA - RTK HS	12 - 18%
Manganese	7439-96-5	MA - S, NJ - HS, PA - RTK HS	5 - 10%
Aluminum Oxide	1344-28-1	MA - S, NJ - HS, PA - RTK HS	3 - 5%
Magnesium oxide	1309-48-4	MA - S, NJ - HS, PA - RTK HS	1 - 3%
Calcium Oxide	1305-78-8	MA - S, NJ - HS, PA - RTK HS	1 - 3%
Umber	12713-03-0	PA - RTK HS	39 - 45%
Manganese Oxide	1313-13-9	PA - RTK HS	12 - 18%
Water	7732-18-5		5 - 10%

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.
WARNING: This product contains a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	CAS #	Concentration (%)	Cancer	Reproductive
Crystalline Quartz Silica	14808-60-7	10 - ≤25	Yes	
Arsenic	7440-38-2	<0.1	Yes	
lead	7439-92-1	<0.1	Yes	Yes
Cadmium	7440-43-9	<0.1	Yes	Yes

U.S. Toxic Substances Control Act : Listed on the TSCA Inventory. This material is included in the TSCA Inventory as a naturally occuring chemical substance as described in 40 CFR 710.4 (b).

Section 16. Other information

Hazardous Material Information System :

Health	*	2
Flammability		1
Physical hazards		0

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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Product Safety and Regulatory Affairs

▼ Indicates information that has changed from previously issued version.

Notice to reader

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FICHE DE DONNEES DE SECURITE Conforme au règlement (CE) n°1907/2006 (REACH),n°2015/830

SAFETY DATA SHEET

Rubrique 1 :IDENTIFICATION OF THE SUBSTANCE, THE PREPARATION AND THE COMPANY

1.1 Identification of the substance / mixture

BURNT UMBER

1.2Relevant identified uses of the substance or mixture and uses advised against

Coloring material for building materials and use of creative hobbies

1.3Manufacturer information

STE DES OCRES DE France
Impasse des Ocriers
84400 – APT – France
www.ocresdefrance.fr

1.3 emergency number

www.centres-antipoison.net 01 40 05 48 48 (centre anti-poison)

Rubrique 2 : IDENTIFICATION OF RISKS

2.1 classification of the substance or mixture in accordance with Regulation (EC) No 1272/2008 and its adjustments.

This mixture is not classified as dangerous according to Directive 67/548 / EEC and its amendments.
For more details on health consequences and symptoms, see section 11.

2.2 labeling elements in accordance with Regulation (EC) No 1272/2008 and its adaptations.

No labeling element is required

2.3 Another dangers

The mixture does not meet the criteria for PBT or vPvB substances according to Annex XIII of REACH Regulation (CE) No 1907/2006

Rubrique 3: COMPOSITION / INFORMATION ON COMPONENTS

CI : R102
Composition : natural iron oxyde and calcium carbonate
Substance/ préparation : preparation
Numéros cas : 1317-65-3
215-279-6

Numéros einecs : no

To the present knowledge of the supplier, this product does not contain any ingredients that are hazardous to require a statement in this section, in accordance with EU regulations or national regulations.

REACH: this preparation is not subject to REACH

Rubrique 4: FIRST AID

Transport the person to the fresh air. In case of fainting, place the person in a lateral safety position.
Immediately flush eyes with plenty of water, occasionally lifting the eyelids. Check if the victim wears contact lenses and in this case remove them.
If irritation occurs, consult a doctor.

Rubrique 5: FIRE FIGHTING MEASURES

The mixture is not flammable. In case of fire, spray with water (in fog), foam, dry chemical or carbon dioxide.

Rubrique 6: MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL RELEASE

Provide adequate ventilation. Put on appropriate personal protective equipment.
Avoid dispersal and spillage of the spilled product and contact with soil, surrounding aquatic environment, sewers or drains.

Rubrique 7: HANDLING AND STORAGE

No special measures required

Rubrique 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Wash hands, forearms and face after handling product.
Recommended: dust mask
Avoid contact with eyes. Use eye protection in accordance with an approved standard
Personal protective equipment for the body should be selected according to the task to be performed and the risks involved.

Rubrique 9: PHYSICAL AND CHEMICAL PROPERTIES

general informations
Physical state: powder
Color : dark brown
Odor: odorless
PH: no available
Melting point: not available
Bulk density: 831 g / l
Solubility: insoluble

Rubrique 10: STABILITY AND REACTIVITY

The product is stable
Under normal conditions of storage and use, no hazardous decomposition products should appear.

Rubrique 11: TOXICOLOGICAL INFORMATION

Inhalation: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards.
Skin contact: No known significant effects or critical hazards.
Eye contact: Exposure to atmospheric concentrations above
statutory or recommended exposure limits may
possibly lead to eye irritation.

If the product is handled properly, it has no harmful effects according to our experiences and information

Rubrique 12: ECOLOGICAL INFORMATION

No known significant effects or critical hazards.

Rubrique 13: CONSIDERATIONS RELATING TO ELIMINATION

In general: Check the suitability of the product for reuse. Uncleaned waste and uncleaned packaging must be packed or closed, labeled and disposed of at a destruction or recycling center in accordance with the national legislation in force. Consult the manufacturer in case of large quantities. If uncleaned empty containers are forwarded, inform the consignee of the possible risks due to the residues of the product. For disposal within the EU, use the waste code in force according to the European Waste List (LED). All waste producers are required, among other things, to classify their waste according to the category and process code of the European Waste List (LED).

To the present knowledge of the supplier, this product is not considered a hazardous waste as defined by EU Directive 91/689 / EEC

Rubrique 14: TRANSPORT

This product is not subject to labeling. No special conditions

Rubrique 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

- Classification and labeling information in section 2:
The following regulations have been taken into account:
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 487/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 758/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 944/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 605/2014
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 1297/2014
- Information about the packaging:
No data available.
- Particular dispositions :
No data available.

15.2. Chemical safety assessment

No data available.

Rubrique 16: ANOTHER INFORMATIONS

Abréviations :

ADR : Accord européen relatif au transport international de marchandises Dangereuses par la Route.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
OACI : Organisation de l'Aviation Civile Internationale.
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
PBT : Persistante, bioaccumulable et toxique.
vPvB : Très persistante et très bioaccumulable.
SVHC : Substance of Very High Concern

Historical
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Cadmium Yellow Deep

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 453/2010)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : PIGMENT JAUNE DE CADMIUM FONCÉ VÉRITABLE

Product code : N133001.533.

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Registered company name : Max Sauer SAS.

Address : 2 rue Lamarck.22000.Saint Brieuc.France.

Telephone : 0033(0)296682000. Fax : 0033(0)296770065.

mail@raphael.fr

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present a health hazard.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

No labelling requirements for this mixture.

In compliance with directives 67/548/EEC, 1999/45/EC and their amendments.

No labelling requirements for this mixture.

2.3. Other hazards

In use, may form flammable/explosive dust-air mixture.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

3.2. Mixtures

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of splashes or contact with eyes :

Wash thoroughly with soft, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of swallowing :

Seek medical attention, showing the label.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO_2)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For fire-fighters

Fire-fighters will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming) ; do not generate dust.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Anyone suffering from respiratory problems or allergies must not handle or be exposed to powdered paints.

7.1. Precautions for safe handling

Always wash hands after handling.

Fire prevention :

Precautions must be taken to prevent any dust formation at a concentration higher than ignition or explosion concentration or the occupational exposure limits.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

Keep well away from all sources of ignition, heat and direct sunlight.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	powder or dust.

Important health, safety and environmental information

pH :	Not stated. neutral.
Boiling point/boiling range :	not specified.
Flash point interval :	not relevant.
Vapour peessure :	not relevant.
Density :	> 1
Water solubility :	Insoluble.
Melting point/melting range :	not specified.
Self-ignition temperature :	not specified.
Decomposition point/decomposition range :	not specified.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Avoid :

- formation of dusts

Dusts can form an explosive mixture with air.

10.5. Incompatible materials

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO_2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Powdered paints may cause local skin irritation, in folds in the skin or on contact with tight clothing (too tight fitting)

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.1. Substances

No aquatic toxicity data available for the substances.

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2011 - IMDG 2010 - ICAO/IATA 2012).

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Particular provisions :

No data available.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=1 Instability/Reactivity=1 Specific Risk=none

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Abbreviations :

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

Blue

Bulk
APOTHECARY

Safety Data Sheet
Matte Cobalt Blue Oxide Pigment Powder

SECTION 1: Identification

1.1 Product identifier

Product name	Matte Cobalt Blue Oxide Pigment Powder
Product number	B-085-color-13
Brand	Bulk Apothecary

1.4 Supplier's details

Name	Bulk Apothecary
Address	115 Lena Dr Aurora OH 44202 United States
Telephone	1-888-728-7612
email	sales@bulkapothecary.com

1.5 Emergency phone number(s)

Domestic: 1-800-633-8253 International: 801-629-0667

SECTION 2: Hazard identification

General hazard statement
Not a hazardous substance or mixture.

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Iron (III) oxide

Concentration	100 % (weight)
CAS no.	1309-37-1

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Remove to fresh air immediately. Contact physician if necessary.
In case of skin contact	Removed contaminated clothing and wash with soap and water.
In case of eye contact	Flush immediately with copious amounts of water. Contact physician if necessary.
If swallowed	Drink plenty of water and consult a physician.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical or foam recommended

5.3 Special protective actions for fire-fighters
Fire personel should wear Self-contained breathing apparatus (SCBA) and full protective clothing

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Safety glasses with side shields or goggles and rubber gloves. Provide adequate general mechanical exhaust.

6.2 Environmental precautions
Prevent material from contaminating soil or entering sewerage and drainage systems.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Store in a cool, dry place. Keep away from excessive heat. Use in a well ventilated area. Wash hands after use.

7.2 Conditions for safe storage, including any incompatibilities
Store in tightly closed containers in ambient location.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Iron oxide (CAS: 1309-37-1)
PEL (Inhalation): 10 (fume) mg/m3 (OSHA)
OSHA Annotated Table Z-1, www.osha.gov

PEL (Inhalation): 5 mg/m3Ęfume) (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): 5 mg/m3Ędust and fume) (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Safety glasses with side shields or goggles

Skin protection
Wear rubber gloves. Wash hands after use

Body protection
Use NIOSH/MSHA approved air-purifying respirator to control exposure

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Free Flowing Powder
Odor	Odorless
Odor threshold	
pH	
Melting point/freezing point	
Initial boiling point and boiling range	
Flash point	
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	
Vapor pressure	
Vapor density	
Relative density	
Solubility(ies)	
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

SECTION 10: Stability and reactivity

10.1 Reactivity
Stable

10.2 Chemical stability

Stable

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
No data

SECTION 12: Ecological information

Toxicity
No data

SECTION 13: Disposal considerations

Disposal of the product
Dispose of in accordance with all applicable federal, state and local regulations. Material may be sent to an approved landfill or licensed treatment, storage and disposal facility.

SECTION 14: Transport information

DOT (US)
Not regulated

IMDG
Not regulated

IATA
Not regulated

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

New Jersey Right To Know Components
Common name: IRON OXIDE
CAS number: 1309-37-1

Pennsylvania Right To Know Components
Chemical name: Iron oxide
CAS number: 1309-37-1

HMIS Rating

Matte Cobalt Blue Oxide Pigment Powder	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0

PERSONAL PROTECTION

NFPA Rating

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Bulk Apothecary be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Bulk Apothecary has been advised of the possibility of such damages.

Gold Ochre

SAFETY DATA SHEET

(REACH regulation (EC) n° 1907/2006 - n° 2015/830)

SECTION 1 : IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product name : PIGMENTS GENERALE

Product code : N133001. 02..

1.2. Relevant identified uses of the substance or mixture and uses advised against

1.3. Details of the supplier of the safety data sheet

Registered company name : Max Sauer SAS.

Address : 2 rue Lamarck CS30204.22000.Saint Brieuc.France.

Telephone : 0033(0)296682000. Fax : 0033(0)296770065.

mail@raphael.fr

1.4. Emergency telephone number : +33 (0)1 45 42 59 59.

Association/Organisation : INRS / ORFILA http://www.centres-antipoison.net.

SECTION 2 : HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

In compliance with EC regulation No. 1272/2008 and its amendments.

This mixture does not present a physical hazard. Refer to the recommendations regarding the other products present on the site.

This mixture does not present an environmental hazard. No known or foreseeable environmental damage under standard conditions of use.

2.2. Label elements

In compliance with EC regulation No. 1272/2008 and its amendments.

Hazard statements :

2.3. Other hazards

In use, may form flammable/explosive dust-air mixture.

The mixture does not contain substances classified as 'Substances of Very High Concern' (SVHC) >= 0.1% published by the European CHemicals Agency (ECHA) under article 57 of REACH: http://echa.europa.eu/fr/candidate-list-table

The mixture satisfies neither the PBT nor the vPvB criteria for mixtures in accordance with annexe XIII of the REACH regulations EC 1907/2006.

SECTION 3 : COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

No substances fulfil the criteria set forth in annexe II section A of the REACH regulation (EC) n° 1907/2006.

SECTION 4 : FIRST AID MEASURES

As a general rule, in case of doubt or if symptoms persist, always call a doctor.

NEVER induce swallowing by an unconscious person.

4.1. Description of first aid measures

In the event of splashes or contact with eyes :

Wash thoroughly with fresh, clean water for 15 minutes holding the eyelids open.

If there is any redness, pain or visual impairment, consult an ophthalmologist.

In the event of splashes or contact with skin :

Watch out for any remaining product between skin and clothing, watches, shoes, etc.

In the event of swallowing :

Seek medical attention, showing the label.

4.2. Most important symptoms and effects, both acute and delayed

No data available.

4.3. Indication of any immediate medical attention and special treatment needed

No data available.

SECTION 5 : FIREFIGHTING MEASURES

Non-flammable.

5.1. Extinguishing media

5.2. Special hazards arising from the substance or mixture

A fire will often produce a thick black smoke. Exposure to decomposition products may be hazardous to health.

Do not breathe in smoke.

In the event of a fire, the following may be formed :

- carbon monoxide (CO)
- carbon dioxide (CO2)

5.3. Advice for firefighters

No data available.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Consult the safety measures listed under headings 7 and 8.

For first aid worker

First aid workers will be equipped with suitable personal protective equipment (See section 8).

6.2. Environmental precautions

Prevent any material from entering drains or waterways.

6.3. Methods and material for containment and cleaning up

Retrieve the product by mechanical means (sweeping/vacuuming) : do not generate dust.

6.4. Reference to other sections

No data available.

SECTION 7 : HANDLING AND STORAGE

Requirements relating to storage premises apply to all facilities where the mixture is handled.

Anyone suffering from respiratory problems or allergies must not handle or be exposed to powdered paints.

7.1. Precautions for safe handling

Always wash hands after handling.

Remove and wash contaminated clothing before re-using.

Fire prevention :

Precautions must be taken to prevent any dust formation at a concentration higher than ignition or explosion concentration or the occupational exposure limits.

Use the mixture in premises free of naked flames or other sources of ignition and ensure that electrical equipment is suitably protected.

Keep packages tightly closed and away from sources of heat, sparks and naked flames.

Prevent access by unauthorised personnel.

Recommended equipment and procedures :

For personal protection, see section 8.

Observe precautions stated on label and also industrial safety regulations.

Packages which have been opened must be reclosed carefully and stored in an upright position.

Prohibited equipment and procedures :

No smoking, eating or drinking in areas where the mixture is used.

7.2. Conditions for safe storage, including any incompatibilities

No data available.

Storage

Keep out of reach of children.

Keep well away from all sources of ignition, heat and direct sunlight.

Packaging

Always keep in packaging made of an identical material to the original.

7.3. Specific end use(s)

No data available.

SECTION 8 : EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No data available.

8.2. Exposure controls

Personal protection measures, such as personal protective equipment

Pictogram(s) indicating the obligation of wearing personal protective equipment (PPE) :

Use personal protective equipment that is clean and has been properly maintained.

Store personal protective equipment in a clean place, away from the work area.

Never eat, drink or smoke during use. Remove and wash contaminated clothing before re-using. Ensure that there is adequate ventilation, especially in confined areas.

- Eye / face protection

Avoid contact with eyes.

Before handling powders or dust emission, wear mask goggles in accordance with standard EN166.

- Hand protection

Wear suitable protective gloves in the event of prolonged or repeated skin contact.

Use suitable protective gloves that are resistant to chemical agents in accordance with standard EN374.

Gloves must be selected according to the application and duration of use at the workstation.

Protective gloves need to be selected according to their suitability for the workstation in question : other chemical products that may be handled, necessary physical protections (cutting, pricking, heat protection), level of dexterity required.

Recommended properties :

- Impervious gloves in accordance with standard EN374

- Body protection

Work clothing worn by personnel shall be laundered regularly.

After contact with the product, all parts of the body that have been soiled must be washed.

- Respiratory protection

Avoid breathing dust.

Type of FFP mask :

Wear a disposable half-mask dust filter in accordance with standard EN149.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

General information :

Physical state :	Powder or dust.

Important health, safety and environmental information

pH :	Not stated.
	Neutral.
Boiling point/boiling range :	Not specified.
Flash point interval :	Not relevant.
Vapour pressure (50°C) :	Not relevant.
Density :	> 1

Water solubility :	Insoluble.
Melting point/melting range :	Not specified.
Self-ignition temperature :	Not specified.
Decomposition point/decomposition range :	Not specified.

9.2. Other information

No data available.

SECTION 10 : STABILITY AND REACTIVITY

10.1. Reactivity

No data available.

10.2. Chemical stability

This mixture is stable under the recommended handling and storage conditions in section 7.

10.3. Possibility of hazardous reactions

When exposed to high temperatures, the mixture can release hazardous decomposition products, such as carbon monoxide and dioxide, fumes and nitrogen oxide.

10.4. Conditions to avoid

Avoid :

- formation of dusts

Dusts can form an explosive mixture with air.

10.5. Incompatible materials

10.6. Hazardous decomposition products

The thermal decomposition may release/form :

- carbon monoxide (CO)
- carbon dioxide (CO2)

SECTION 11 : TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Powdered paints may cause local skin irritation, in folds in the skin or on contact with tight clothing (too tight fitting)

11.1.1. Substances

No toxicological data available for the substances.

11.1.2. Mixture

No toxicological data available for the mixture.

SECTION 12 : ECOLOGICAL INFORMATION

12.1. Toxicity

12.1.2. Mixtures

No aquatic toxicity data available for the mixture.

12.2. Persistence and degradability

No data available.

12.3. Bioaccumulative potential

No data available.

12.4. Mobility in soil

No data available.

12.5. Results of PBT and vPvB assessment

No data available.

12.6. Other adverse effects

No data available.

SECTION 13 : DISPOSAL CONSIDERATIONS

Proper waste management of the mixture and/or its container must be determined in accordance with Directive 2008/98/EC.

13.1. Waste treatment methods

Do not pour into drains or waterways.

Waste :

Waste management is carried out without endangering human health, without harming the environment and, in particular without risk to water, air, soil, plants or animals.

Recycle or dispose of waste in compliance with current legislation, preferably via a certified collector or company.

Do not contaminate the ground or water with waste, do not dispose of waste into the environment.

Soiled packaging :

Empty container completely. Keep label(s) on container.

Give to a certified disposal contractor.

SECTION 14 : TRANSPORT INFORMATION

Exempt from transport classification and labelling.

Transport product in compliance with provisions of the ADR for road, RID for rail, IMDG for sea and ICAO/IATA for air transport (ADR 2015 - IMDG 2014 - ICAO/IATA 2015).

SECTION 15 : REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

- Classification and labelling information included in section 2:

The following regulations have been used:

- EU Regulation No. 1272/2008 amended by EU Regulation No. 487/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 758/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 944/2013.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 605/2014.
- EU Regulation No. 1272/2008 amended by EU Regulation No. 1297/2014.

- Container information:

No data available.

- Particular provisions :

No data available.

- Standardised American system for the identification of hazards presented by the product in view of emergency procedures (NFPA 704) :

NFPA 704, Labelling: Health=0 Inflammability=1 Instability/Reactivity=1 Specific Risk=none

15.2. Chemical safety assessment

No data available.

SECTION 16 : OTHER INFORMATION

Since the user's working conditions are not known by us, the information supplied on this safety data sheet is based on our current level of knowledge and on national and community regulations.

The mixture must not be used for other uses than those specified in section 1 without having first obtained written handling instructions.

It is at all times the responsibility of the user to take all necessary measures to comply with legal requirements and local regulations.

The information in this safety data sheet must be regarded as a description of the safety requirements relating to the mixture and not as a guarantee of the properties thereof.

Abbreviations :

ADR : European agreement concerning the international carriage of dangerous goods by Road.

IMDG : International Maritime Dangerous Goods.

IATA : International Air Transport Association.

ICAO : International Civil Aviation Organisation

RID : Regulations concerning the International carriage of Dangerous goods by rail.

PBT: Persistent, bioaccumulable and toxic.

vPvB : Very persistent, very bioaccumulable.

SVHC : Substances of very high concern.

SAFETY DATA SHEET

According to Chinese National Standard GB/T 16483-2008 and GB/T 17519-2013

Revision date: 12-Nov-2019

According to Chinese National Standards GB/T 16483-2008 and GB/T 17519-2013, a Safety Data Sheet (SDS) must be provided for hazardous substances or mixtures. This product does not meet the classification criteria according to this standard. Therefore, such document is outside the scope of the standard and the requirements for each section do not apply.

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

Product name:	EMPEROR® 1800
Product code:	E1800
Synonyms:	Modified Carbon Black
Recommended use:	Colorant for industrial/automotive coatings
Restrictions on use:	Not Applicable
Supplier:	

Cabot China Ltd.
558 Shuangbai Road
Shanghai 201108
CHINA
Tel: +86 21 5175 8800
Fax: +86 21 6434 5532

Cabot Corporation
Pampa Development & Manufacturing Center
Rt. 1 Box 120
5 Miles West of Pampa/Hwy 60
Pampa, Texas 79065
UNITED STATES
Tel: 1-806-661-3200
Fax: 1-806-661-3048

Emergency telephone	China: CHEMTREC 4001 - 204937 International CHEMTREC: +1 703-741-5970 or +1-703-527-3887 CHEMTREC US 1-800-424-9300 or +1-703-527-3887
E-mail address:	SDS@cabotcorp.com

2. HAZARDS IDENTIFICATION

GHS - Classification

Not a hazardous substance according to Chinese National Standards GB 13690-2009 and GB 30000.2-29-2013.

Label Elements:

Pictogram:	None
Signal Word:	None
Hazard statements:	None
Precautionary Statements:	None

Hazards not otherwise classified (HNOC)

This substance is classified as hazardous as a combustible dust by the United States 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200) and the Canadian Hazardous Products Regulation (HPR) 2015 The signal word, hazard statement and precautionary statements in the United States and Canada are: WARNING May form combustible dust concentrations in air. Keep away from all ignition sources including heat, sparks and flame. Prevent dust accumulations to minimize explosion hazard.

Do not expose to temperatures above 175°C. Hazardous products of combustion can include carbon monoxide, carbon dioxide, oxides of sulfur, and organic products.

Potential health effects

Principle Routes of Exposure:	Inhalation, Eye contact, Skin Contact
Eye Contact:	May cause irritation. Avoid eye contact.
Skin Contact:	May cause irritation. Avoid skin contact.
Inhalation:	Dust may be irritating to respiratory tract. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. See also Section 8.
Ingestion:	Adverse health effects are not expected. See Section 11.
Carcinogenicity:	Does not contain any substances listed by IARC (International Agency for Research on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference of Governmental Industrial Hygienists) or EU (European Union). Carbon Black is listed as an IARC (International Agency for Research on Cancer) Group 2B substance (possibly carcinogenic to humans). See also Section 11.
Target Organ Effects:	Lungs, See Section 11
Medical Conditions Aggravated by Exposure:	Asthma, Respiratory disorder
Potential Environmental Effects:	Not expected to be harmful to the environment. However, product is dispersible in water and release to the environment should be avoided.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical name	CAS No	weight-%
Carbon black, hydroxy- and 4-sulfophenyl-modified, sodium salt	481066-70-0	<100

Other Information:
The hyphen (-) means "not applicable"

4. FIRST AID MEASURES

FIRST AID MEASURES

Skin Contact	Wash thoroughly with soap and water. Seek medical attention if symptoms develop.
Eye contact	Flush eyes immediately with large amounts of water for 15 minutes. Seek medical attention if symptoms develop.
Inhalation	If cough, shortness of breath or other breathing problems occur, move to fresh air. Seek medical attention if symptoms persist. If necessary, restore normal breathing through standard first aid measures.
Ingestion	Do not induce vomiting. If conscious, give several glasses of water. Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

Symptoms:	The most important known symptoms and effects are described in Section 2 and/or in Section 11.

Indication of any immediate medical attention and special treatment needed

Note to physicians:	Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media:	Use foam, carbon dioxide (CO2), dry chemical or water spray. A fog is recommended if water is used.
Unsuitable Extinguishing Media:	DO NOT USE a solid water stream as it may scatter and spread fire. DO NOT USE high pressure media which could cause formation of a potentially explosible dust-air mixture.
Specific hazards arising from the chemical:	It may not be obvious that carbon black is burning unless the material is stirred and embers and/or sparks are apparent. Carbon black that has been on fire should be observed closely for at least 48 hours to ensure no smoldering material is present. Burning produces irritant fumes. Dispersible in water.
Hazardous combustion products:	Carbon monoxide (CO). Carbon dioxide (CO2). Sulphur oxides.
Protective equipment and precautions for firefighters:	Wear suitable protective equipment. In the event of fire, wear self-contained breathing apparatus. Wet carbon black produces very slippery walking surfaces.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions:	CAUTION: Wet carbon black produces slippery walking surfaces. Avoid dust formation. Ensure adequate ventilation. Use personal protective equipment. See also Section 8.

Environmental Precautions:

Environmental Precautions:	Contain spilled product on land, if possible. Dispersible in water. Any product that reaches water should be contained. Local authorities should be advised if spillages cannot be contained.

Methods and material for containment and cleaning up

Methods for containment:	Prevent further leakage or spillage if safe to do so.

Methods for cleaning up: If the spilled material contains dust or has the potential to create dust, use explosion-proof vacuums and/or cleaning systems suitable for combustible dusts. Use of a vacuum with high efficiency particulate air (HEPA) filtration is recommended. Do not create a dust cloud by using a brush or compressed air. Dry sweeping is not recommended. Water spray will produce very slippery walking surfaces and will not result in satisfactory removal of carbon black contamination. Pick up and transfer to properly labelled containers. See Section 13.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling: Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate local exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air. Dust may form explosible mixture in air.

Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations. Fine dust is capable of penetrating electrical equipment and may cause electrical shorts. If hot work (welding, torch cutting, etc.) is required the immediate work area must be cleared of carbon black product and dust.

Conditions for safe storage, including any incompatibilities

Storage Conditions: Keep at temperatures below 175°C. Keep in a dry, cool and well-ventilated place. Keep away from heat and sources of ignition. Do not store together with strong oxidizing agents. Do not store together with volatile chemicals as they may be adsorbed onto product. Keep in properly labeled containers.

Carbon black is not classifiable as a Division 4.2 self-heating substance under the UN test criteria. However, the UN criteria for determining if a substance is self-heating is volume dependent, i.e., the auto-ignition temperature decreases with increasing volume. This classification may not be appropriate for large volume storage containers.

Before entering vessels and confined spaces containing carbon black, test for adequate oxygen, flammable gases and potential toxic air contaminants. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosible mixture if they are released in the atmosphere in sufficient concentrations.

Incompatible materials: Strong oxidizing agents.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure guidelines: .

There are no exposure limits identified for this product. Exposure limits for carbon black are stated below. The table below is a summary. Please see the specific legislation for complete information.

Carbon Black, CAS RN 1333-86-4: Argentina: 3.5 mg/m^3, TWA
Australia: 3.0 mg/m^3, TWA inhalable
Belgium: 3.6 mg/m^3, TWA

Brasil: 3.5 mg/m³, TWA
Canada (Ontario): 3.0 mg/m³, TWA inhalable
China: 4.0 mg/m³, TWA; 8.0 mg/m³, STEL
Colombia: 3.0 mg/m³, TWA inhalable
Czech Republic: 2.0 mg/m³, TWA
Finland: 3.5 mg/m³, TWA; 7.0 mg/m³, STEL
France - INRS: 3.5 mg/m³, TWA/VME inhalable
Hong Kong: 3.5 mg/m³, TWA
Indonesia: 3.5 mg/m³, TWA/NABs
Ireland: 3.5 mg/m³, TWA; 7.0 mg/m³, STEL
Italy: 3.0 mg/m³, TWA inhalable
Japan SOH: 4.0 mg/m³, TWA; 1.0 mg/m³, TWA respirable
Korea: 3.5 mg/m³, TWA
Malaysia: 3.5 mg/m³, TWA
Netherlands - MAC: 3.5 mg/m³, TWA inhalable
Mexico: 3.5 mg/m³, TWA
Norway: 3.5 mg/m³, TWA
Spain: 3.5 mg/m³, TWA (VLA-ED)
Sweden: 3.0 mg/m³, TWA
United Kingdom - WEL: 3.5 mg/m³, TWA inhalable; 7.0 mg/m³, STEL inhalable
US ACGIH - TLV: 3.0 mg/m³, TWA inhalable
US OSHA - PEL: 3.5 mg/m³, TWA

NOTE:

(1) Unless otherwise indicated as "respirable" or "inhalable", the exposure limit represents a "total" value. The inhalable exposure limit has been demonstrated to be more restrictive than the total exposure limit, by a factor of approximately 3.
(2) In its facilities globally, Cabot Corporation manages to the US ACGIH TLV of 3.0 mg/m³ TWA inhalable.

AGW: Arbeitsplatzgrenzwert
INRS: Institut National de Recherche et de Securite (National Institute of Research and Security)
MAC: Maximaal Aanvaarde Concentraties (Maximum allowed concentration)
MHLW: Ministry of Health, Labor and Welfare
NABS: Nilai Ambang Batas (threshold limit value)
OEL: Occupational Exposure Limit
PEL: Permissible Exposure Limit
SOH: Society of Occupational Health
STEL: Short Term Exposure Limit
TLV: Threshold Limit Value
TRGS: Technische Regeln für Gefahrstoffe (Technical Rule for Hazardous Materials)
TWA: Time Weighted Average
US ACGIH: United States American Conference of Governmental Industrial Hygienists
US OSHA: United States Occupational Safety and Health Administration
VME: Valeur Moyenne d'Exposition (Average Level of Exposure)
WEL: Workplace Exposure Limit
VLA-ED: Valor límite ambiental de exposicíon diaria (environmental value of daily exposure limit)

Engineering Controls: Ensure adequate ventilation to maintain exposures below occupational limits. Provide appropriate exhaust ventilation at machinery and at places where vapors and dust can be generated.

Personal protective equipment [PPE]

Respiratory Protection: An approved air-purifying respirator (APR) for particulates may be permissible where airborne concentrations are expected to exceed occupational exposure limits. Protection provided by air-purifying respirators is limited. Use a positive-pressure, air supplied respirator if there is any potential for uncontrolled release, exposure levels are

not known, or any circumstances where air-purifying respirators may not provide adequate protection. Use of respirators must include a complete respiratory protection program in accordance with national standards and current best practices.

The following agencies/organizations approve respirators and/or criteria for respirator programs:

US: NIOSH approval under 42 CFR 84 required. OSHA (29 CFR 1910.134). ANSI Z88.2-1992 (Respiratory Protection).

EU: CR592 Guidelines for the Selection and Use of Respiratory Protection.

Germany: DIN/EN 143 Respiratory Protective Devices for Dusty Materials.

UK: BS 4275 Recommendations for the Selection, Use and Maintenance of Respiratory Protective Equipment. HSE Guidance Note HS (G)53 Respiratory Protective Equipment.

Hand Protection: Wear protective gloves to prevent soiling of hands. Use protective barrier cream before handling the product. Wash hands and other exposed skin with mild soap and water.

Eye/face Protection: Wear eye/face protection. Wear safety glasses with side shields (or goggles).

Skin and Body Protection: Wear suitable protective clothing. Wash clothing daily. Work clothing should not be allowed out of the workplace.

Other: Handle in accordance with good industrial hygiene and safety practice. Emergency eyewash and safety shower should be located nearby.

Environmental exposure controls: In accordance with all local legislation and permit requirements.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid	Odor:	None
Appearance:	Black powder or pellets	Odor threshold:	Not Applicable
Color:	Black		

Property	Values	**Remarks • Method**
pH:	6-9	
Melting point/freezing point:		Not Applicable
Boiling point / boiling range:		Not Applicable
Evaporation Rate:		Not Applicable
Vapor pressure:		Not Applicable
Vapor Density:		Not Applicable
Density:		No information available
Bulk Density:	416-480 kg/m^3	
Specific Gravity at 20°C:		No information available
Water solubility:	Insoluble but readily dispersible	
Solubility(ies):	Insoluble	
Partition Coefficient (n-octanol/water):		Not Applicable
Decomposition temperature:		Not Applicable

Viscosity:		Not Applicable
Kinematic viscosity:		Not Applicable
Dynamic viscosity:		Not Applicable
Oxidizing Properties:		Not Applicable
Softening point:		Not Applicable
VOC content (%):		No information available
% Volatile (by Volume):		No information available
% Volatile (by Weight):	> 8%	No information available
Surface Tension:		No information available
Explosive properties:		Dust may form explosible mixture in air
Flash Point:		Not Applicable
Flammability (solid, gas):		No information available
Flammability Limit in Air:		No information available
Explosion Limits in Air - Upper (g/m^3):		No information available
Explosion Limits in Air - Lower (g/m^3):	60-70 g/m^3	
Autoignition Temperature:		No information available
Minimum Ignition Temperature:	520-540 °C	(BAM Furnace) VDI 2263
Minimum Ignition Energy:	> 500 mJ	VDI 2263
Ignition Energy:		No information available
Maximum Absolute Explosion Pressure:	7.7 bar	VDI 2263
Maximum Rate of Pressure Rise:	326 bar/sec	VDI 2263
Burn Velocity:		No information available
Kst Value:	88 bar.meter/second	VDI 2263
Dust Explosion Classification:	ST1	

10. STABILITY AND REACTIVITY

Reactivity: May react exothermically upon contact with strong oxidizers.

Stability: Stable under recommended handling and storage conditions.

Explosion data: See also Section 9.

Sensitivity to Mechanical Impact: Not sensitive to mechanical impact.

Sensitivity to Static Discharge: Dust may form explosible mixture in air. Avoid dust formation. Do not create a dust cloud by using a brush or compressed air. Take precautionary measures against static discharges. All metal parts of the mixing and processing equipment must be earthed/grounded. Ensure all equipment is electrically earthed/grounded before beginning transfer operations.

Possibility of hazardous reactions: None under normal processing.

Hazardous polymerization: Hazardous polymerization does not occur.

Conditions to avoid: Do not expose to temperatures above 175°C. Keep away from heat and sources of ignition. Avoid dust formation.

Incompatible materials: Strong oxidizing agents.

Hazardous decomposition products: Carbon monoxide (CO). Carbon dioxide (CO2). Sulfur oxides. Organic products of combustion.

11. TOXICOLOGICAL INFORMATION

Information given is based on data on the components and the toxicology of similar products.

Acute toxicity

Oral LD50:	LD50/oral/rat = > 5000 mg/kg.
Inhalation LC50:	Due to the product's physical characteristics, no suitable testing procedure is available
Dermal LD50:	LD50/dermal/rabbit = >2000 mg/kg.
Skin corrosion/irritation:	Primary irritation index = 0.25/8 Slight irritation
Serious eye damage/eye irritation:	Rabbit. Draize score 7.0/110 (1 hr). Non-irritating.
Sensitization:	A delayed contact hypersensitivity study in guinea pigs utilizing the Magnusson and Kligman Maximization technique was performed. Did not cause sensitization on laboratory animals.
Germ Cell Mutagenicity	Not mutagenic in Ames test, Negative in the chromosome aberration test in Chinese hamster ovary (CHO) cells
Carcinogenicity:	Product not tested. Information below pertains to the raw material (carbon black).

ANIMAL TOXICITY:

Rat, oral, duration 2 years.
Effect: no tumors.

Mouse, oral, duration 2 years.
Effect: no tumors.

Mouse, dermal, duration 18 months.
Effect: no skin tumors.

Rat, inhalation, duration 2 years.
Target organ: lungs.
Effect: inflammation, fibrosis, tumors.

Note: Tumors in the rat lung are considered to be related to the "lung overload" rather than to a specific chemical effect of carbon black itself in the lung. These effects in rats have been reported in many studies on other poorly soluble inorganic particles and appear to be rat specific (ILSI, 2000). Tumors have not been observed in other species (i.e., mouse and hamster) for carbon black or other poorly soluble particles under similar circumstances and study conditions.

MORTALITY STUDIES (HUMAN DATA):

A study on carbon black production workers in the UK (Sorahan, 2001) found an

increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant (Morfeld, 2006; Buechte, 2006) found a similar increase in lung cancer risk but, like the Sorahan, 2001 (UK study), found no association with carbon black exposure. A large US study of 18 plants showed a reduction in lung cancer risk in carbon black production workers (Dell, 2006). Based upon these studies, the February 2006 Working Group at the International Agency for Research on Cancer (IARC) concluded that the human evidence for carcinogenicity was inadequate (IARC, 2010).

Since the IARC evaluation of carbon black, Sorahan and Harrington (2007) have re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney (2009) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington.

Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated.

IARC CANCER CLASSIFICATION:

In 2006 IARC re-affirmed its 1995 finding that there is "inadequate evidence" from human health studies to assess whether carbon black causes cancer in humans. IARC concluded that there is "sufficient evidence" in experimental animal studies for the carcinogenicity of carbon black. IARC's overall evaluation is that carbon black is "possibly carcinogenic to humans (Group 2B)". This conclusion was based on IARC's guidelines, which generally require such a classification if one species exhibits carcinogenicity in two or more animal studies (IARC, 2010).

Solvent extracts of carbon black were used in one study of rats in which skin tumors were found after dermal application and several studies of mice in which sarcomas were found following subcutaneous injection. IARC concluded that there was "sufficient evidence" that carbon black extracts can cause cancer in animals (Group 2B).

ACGIH CANCER CLASSIFICATION:

Confirmed Animal Carcinogen with Unknown Relevance to Humans (Category A3 Carcinogen).

ASSESSMENT:

Applying the guidelines of self-classification under the Globally Harmonized System of Classification and Labeling of Chemicals, carbon black is not classified as a carcinogen. Lung tumors are induced in rats as a result of repeated exposure to inert, poorly soluble particles like carbon black and other poorly soluble particles. Rat tumors are a result of a secondary non-genotoxic mechanism associated with the phenomenon of lung overload. This is a species-specific mechanism that has questionable relevance for classification in humans. In support of this opinion, the CLP Guidance for Specific Target Organ Toxicity – Repeated Exposure (STOT-RE), cites lung overload under mechanisms not relevant to humans. Human health studies show that exposure to carbon black does not increase the risk of carcinogenicity.

Reproductive and Developmental Toxicity:

Product not tested. Information below pertains to the raw material (carbon black).

ASSESSMENT: No effects on reproductive organs or fetal development have been reported in long-term repeated dose toxicity studies in animals.

STOT - single exposure:

Product not tested. Information below pertains to the raw material (carbon black).

ASSESSMENT: Based on available data, specific target organ toxicity is not expected after single oral, single inhalation, or single dermal exposure.

STOT - repeated exposure:

Product not tested. Information below pertains to the raw material (carbon black).

ANIMAL TOXICITY:

Repeated dose toxicity: inhalation (rat), 90 days, No Observed Adverse Effect Concentration (NOAEC) = 1.1 mg/m^3 (respirable). Target organ effects at higher doses are lung inflammation, hyperplasia, and fibrosis.

Repeated dose toxicity: oral (mouse), 2 yrs, No Observed Effect Level (NOEL) = 137 mg/kg (body wt.)

Repeated dose toxicity: oral (rat), 2 yrs, NOEL = 52 mg/kg (body wt.)

Although carbon black produces pulmonary irritation, cellular proliferation, fibrosis, and lung tumors in the rat under conditions of "lung overload", there is evidence to demonstrate that this response is principally a species-specific response that is not relevant to humans.

MORBIDITY STUDIES (human data):

Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small, non-clinical decrements in lung function. A U.S. respiratory morbidity study suggested a 27 ml decline in FEV1 from a 1 mg/m^3 8 hour TWA daily (inhalable fraction) exposure over a 40-year period (Harber, 2003). An earlier European investigation suggested that exposure to 1 mg/m^3 (inhalable fraction) of carbon black over a 40-year working lifetime would result in a 48 ml decline in FEV1 (Gardiner, 2001). However, the estimates from both studies were only of borderline statistical significance. Normal age-related decline over a similar period of time would be approximately 1200 ml.

In the U.S. study, 9% of the highest non-smokers exposure group (in contrast to 5% of the unexposed group) reported symptoms consistent with chronic bronchitis. In the European study, methodological limitations in the administration of the questionnaire limit the conclusions that can be drawn about reported symptoms. This study, however, indicated a link between carbon black and small opacities on chest films, with negligible effects on lung function.

INHALATION ASSESSMENT:

Applying the guidelines of self-classification under GHS, carbon black is not classified under STOT-RE for effects on the lung. Classification is not warranted on the basis of the unique response of rats resulting from the “lung overload” following exposure to poorly

soluble particles such as carbon black. The pattern of pulmonary effects in the rat, such as inflammation and fibrotic responses, are not observed in other rodent species, non-human primates, or humans under similar exposure conditions. Lung overload does not appear to be relevant for human health. Overall, the epidemiological evidence from well-conducted investigations has shown no causative link between carbon black exposure and the risk of non-malignant respiratory disease in humans. A STOT-RE classification for carbon black after repeated inhalation exposure is not warranted.

ORAL ASSESSMENT:

Based on available data, specific target organ toxicity is not expected after repeated oral exposure.

DERMAL ASSESSMENT:

Based on available data and the chemical-physical properties (insolubility, low absorption potential), specific target organ toxicity is not expected after repeated dermal exposure.

Aspiration Hazard: Product not tested. Information below pertains to the raw material (carbon black).

ASSESSMENT: Based on industrial experience and the available data, no aspiration hazard is expected.

12. ECOLOGICAL INFORMATION

Information given is based on data on the components and the toxicology of similar products.

Aquatic Toxicity:
Fish LC50 (96 hours): > 100 mg/l
Daphnia magna EC50 (48 hours): > 1000 mg/l
Algae EC50 (72 hours, growth inhibition): > 100 mg/l
Activated Sludge EC50 (respiration inhibition): > 1000 mg/l

ENVIRONMENTAL FATE

Persistence and degradability: Not expected due to physicochemical properties of the substance.

Bioaccumulation: Log Pow <0.3. Not expected due to physicochemical properties of the substance.

Mobility: Not soluble in water, but highly dispersible.

Distribution to Environmental Compartments: Dispersible.

PBT and vPvB Assessment: This substance does not fulfill the criteria for PBT or vPvB.

Other adverse effects: No information available.

13. DISPOSAL CONSIDERATIONS

Disclaimer: Information in this section pertains to the product as shipped in its intended composition as described in Section 3 of this SDS. Contamination or processing may change waste characteristics and requirements. Regulations may also apply to empty containers, liners or rinsate. State/provincial and local regulations may be different from federal regulations.

Disposal considerations:	Waste should not be released to sewers. Product, as supplied, can be burned in suitable incineration facilities or should be disposed of in accordance with the regulations issued by the appropriate federal, state and local authorities. Same consideration should be given to containers and packaging. When selecting a disposal alternative, landfill is not recommended due to the water dispersible characteristics of this material. Reuse is not recommended.

14. TRANSPORT INFORMATION

Seven (7) ASTM reference carbon blacks were tested according to the UN method, Self Heating Solids, and found to be "Not a self-heating substance of Division 4.2"; the same carbon blacks were tested according to the UN method, Readily Combustible Solids, and found to be "Not a readily combustible solid of Division 4.1"; under current UN Recommendations on the Transport of Dangerous Goods.

The following organizations do not classify carbon black as a "hazardous cargo" if it is "carbon, non-activated, mineral origin". Cabot carbon blacks meet this definition.

DOT

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

ICAO (air)

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

IATA

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

IMDG

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

RID

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

ADR

UN/ID no	Not regulated
Proper Shipping Name	Not regulated
Hazard Class	Not regulated
Packing group	Not regulated

15. REGULATORY INFORMATION

Hazardous Chemical Inventory: Not Listed

International Inventories

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory	Complies
DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List	Complies
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances	Complies
ENCS - Japan Existing and New Chemical Substances	Complies
IECSC - China Inventory of Existing Chemical Substances	Complies
KECL - Korean Existing and Evaluated Chemical Substances	Complies
PICCS - Philippines Inventory of Chemicals and Chemical Substances	Complies
AICS - Australian Inventory of Chemical Substances	Complies
NZIoC - New Zealand Inventory of Chemicals	Complies
TCSI - Taiwan Chemical Substance Inventory	Complies

Note: US TSCA Inventory Active/Inactive Status: All non-exempt components in this product are designated as Active.

16. OTHER INFORMATION

Carbon Black Extracts:
Manufactured carbon blacks generally contain less than 0.1% of solvent extractable polycyclic aromatic hydrocarbons (PAH). Solvent extractable PAH content depends on numerous factors including, but not limited to, the manufacturing process, desired product specifications, and the analytical procedure used to measure and identify solvent extractable materials. Questions concerning PAH content of carbon black and analytical procedures should be addressed to your carbon black supplier

References:
Process Safety Test Results and Interpretation (explosivity, etc.), Chilworth Technology Inc., Study No. R/8087/0808/SS, 14 August 2008

Borm, P.J.A., Cakmak, G., Jermann, E., Weishaupt C., Kempers, P., van Schooten,FJ., Oberdorster, G., Schins, RP. (2005) Formation of PAH-DNA adducts after in-vivo and vitro exposure of rats and lung cell to different commercial carbon blacks. Tox.Appl. Pharm. 1:205(2):157-67.

Buechte, S, Morfeld, P, Wellmann, J, Bolm-Audorff, U, McCunney, R, Piekarski, C. (2006) Lung cancer mortality and carbon black exposure – A nested case-control study at a German carbon black production plant. J.Occup. Env.Med. 12: 1242-1252.

Dell, L, Mundt, K, Luipold, R, Nunes, A, Cohen, L, Heidenreich, M, Bachand, A. (2006) A cohort mortality study of employees in the United States carbon black industry. J.Occup. Env. Med. 48(12): 1219-1229.

Driscoll KE, Deyo LC, Carter JM, Howard BW, Hassenbein DG and Bertram TA (1997) Effects of particle exposure and particle-elicited inflammatory cells on mutation in rat alveolar epithelial cells. Carcinogenesis 18(2) 423-430.

Gardiner K, van Tongeren M, Harrington M. (2001) Respiratory health effects from exposure to carbon black: Results of the phase 2 and 3 cross sectional studies in the European carbon black manufacturing industry. Occup. Env. Med. 58: 496-503.

Harber P, Muranko H, Solis S, Torossian A, Merz B. (2003) Effect of carbon black exposure on respiratory function and symptoms. J. Occup. Env. Med. 45: 144-55.

ILSI Risk Science Institute Workshop: The Relevance of the Rat Lung Response to Particle to Particle Overload for Human Risk Assessment. Inh. Toxicol. 12:1-17 (2000).

International Agency for Research on Cancer: IARC Monographs on the Evaluation of Carcinogenic Risks to Humans (2010), Vol. 93, February 1-14, 2006, Carbon Black, Titanium Dioxide, and Talc. Lyon, France.

Morfeld P, Büchte SF, Wellmann J, McCunney RJ, Piekarski C (2006). Lung cancer mortality and carbon black exposure: Cox regression analysis of a cohort from a German carbon black production plant. J. Occup.Env.Med.48(12):1230-1241.

Morfeld P and McCunney RJ, (2009). Carbon Black and lung cancer testing a novel exposure metric by multi-model inference. Am. J. Ind. Med. 52: 890-899.

Sorahan T, Hamilton L, van Tongeren M, Gardiner K, Harrington JM (2001). A cohort mortality study of U.K. carbon black workers, 1951-1996. Am. J. Ind. Med. 39(2):158-170.

Sorahan T, Harrington JM (2007) A ''Lugged'' Analysis of Lung Cancer Risks in UK Carbon Black Production Workers, 1951–2004. Am. J. Ind. Med. 50, 555–564.

Prepared by:	Cabot Corporation - Safety, Health and Environmental Affairs
Revision date:	12-Nov-2019
Previous Revision Date:	11/May/2017

End of Safety Data Sheet

MATERIAL SAFETY DATA SHEET

ACCORDING TO DIRECTIVE 91/155/EEC

1. IDENTIFICATION OF THE SUBSTANCE, THE PREPARATION AND THE COMPANY

1.1	IDENTIFICATION OF THE SUBSTANCE	**INDIAN NATURAL RED OXIDE**
1.2	IDENTIFICATION OF THE COMPANY	**STE OCRES DE FRANCE** **Impasse des Ocriers** **F - 84401 APT CEDEX** **Tél: 04.90.74.63.82 / FAX: 04. 90.74.46.75**
1.3	EMERGENCY PHONE NUMBER	Telephone : + 33 (0) 4.90.74.47.67 Telephone : + 33 (0) 4.90.74.63.82

2. COMPOSITION / INFORMATION OF THE COMPONENTS

2.	COMPOSITION	FE203

3. IDENTIFICATION OF DANGERS

	SPECIFIC DANGERS :	None

4. FIRST HELP

4.1.	CONTACT WITH EYES	Wash with water while spreading the eyelids In case of obstinate irritation, consult an oculist.
4.2.	CONTACT WITH SKIN	Wash with soapy water and rinse with water
4.3.	INHALATION	Move the person to open air. In case of sickness, consult a doctor
4.4.	INGESTION	In case of suspicions or recurrent symptoms call a doctor

5. BATTLE AGAINST FIRE MEASURES

	MEANS OF EXTINCTION :	
5.1.	Advisable :	Pulverized water, fire extinguisher.
5.2.	Counter indication:	none
5.3.	Specific dangers :	none
5.4.	Protection of the intervening parties :	none

6. MEASURES TO TAKE IN CASE OF ACCIDENTAL DISPERSION

6.1.	INDIVIDUAL PROTECTIONS :	Wear protective clothing
6.2.	PRECAUTIONS FOR THE PROTECTION OF THE ENVIRONMENT :	Avoid sewer dumping
6.3.	CLEANING INSTRUCTIONS:	None
6.4.	RECOVERY:	Vacuum Cleaning
6.5.	CLEANING:	Use soapy water

7. HANDLING AND STORAGE

7.1.	HANDLING	Handle avoiding dust emission.
7.2.	PRECAUTIONS	Capture of dusts at the emission source.
7.3.	STORAGE	Stable product in normal storage conditions.
7.4.	STORING ADVISE	Keep bags or buckets away from humidity.
7.5.	INCOMPATIBLE MATTERS	None to our knowledge
7.6.	MATERIAL PACKING	Paper bag or plastic bucket

8. EXPOSURE CONTROL / INDIVIDUAL PROTECTION

8.1.	RESPIRATORY PROTECTION	Wear a protecting mask against dusts
8.2.	HANDS PROTECTION	Wear suitable gloves
8.3.	EYES PROTECTION	Wear protective glasses
8.4.	SPECIFIC HYGIENE MEASURES	No food, no drinks, no smoking during use

9. CHEMICAL AND PHYSICAL PROPERTIES

9.1.	PHYSICAL STATE	Powder
9.2.	COLOR	Red
9.3.	ODOR	Odourless
9.4.	TEMPERATURE OF FUSION	700C

10. STABILITY AND REACTIVITY

10.1 STABILITY	Stable in normal storage conditions.
10.2 HARMFUL REACTIONS	None, in normal conditions of use.

11. TOXICOLOGICAL INFORMATION

11.1 CUTANEOUS IRRITATION	Non irritant
11.2 OCULAR IRRITATION	Non irritant

12. ECOLOGICAL INFORMATION

IMPACT ON THE ENVIRONMENT / ECOTOXICITY
"Ames" Test: Negative

13. ELIMINATION CONNECTED CONSIDERATIONS

13.1. PROCEDURE OF NEUTRALIZATION AND DESTRUCTION OF THE PRODUCT
Eliminate in a controlled dump
13.2. PROCEDURE OF DESTRUCTION OF THE CONTAMINATED PACKING /
No reusable packing, to be eliminated in a controlled dump

14. RELATIVE INFORMATION TO THE TRANSPORTATION

14.1	GGVSee/IMDG CODE	---
14.2	GGVE/GGVS	---
14.3	UN No.	---
14.4	RID / ADR	---
14.5	ICAO / IATA-DGR	---
14.6	ADNR	---

INTERNATIONAL REGULATION : This product is not regulated. Sensible to humidity. Keep away from food, acids and its basis.

15. AUTHORIZED INFORMATION

No dangerous product for the transportation regulation

16. OTHER INFORMATION

This safety card has been achieved in accordance with T01-102/12/92 guideline and 91/155/EG. The indicated information is based on the state of our knowledge of the concerned product. Information and recommendations contained in this form are only based on estimated data. Nevertheless it can be given no insurance or relative guarantee to the present information. **SOCIETE DES OCRES DE FRANCE. F - 84401 APT CEDEX**

MATERIAL SAFETY DATA SHEET

ACCORDING TO DIRECTIVE 91/155/EEC

1 • IDENTIFICATION OF THE SUBSTANCE, THE PREPARATION AND THE COMPANY

1.1 IDENTIFICATION OF THE SUBSTANCE

NATURAL UMBER

1.2 IDENTIFICATION OF THE COMPANY:

STE OCRES DE FRANCE

Impasse des Ocriers

F - 84401 APT CEDEX - FRANCE

Phone: + 33 (0) 4.90.74.63.82 / Fax: + 33 (0) 4. 90.74.46.75

1.3 EMERGENCY PHONE NUMBER:

Phone : + 33 (0) 4.90.74.47.67

Phone : + 33 (0) 4.90.74.63.82

2. COMPOSITION / INFORMATION OF THE COMPONENTS

2.1 USUAL NAME: *NATURAL UMBER*

2.2 C.A.S NUMBER: *None*

2.3 E.I.N.E.C.S NUMBER: *None*

2.4 FORMULA: *IRON and CLAY*

3. IDENTIFICATION OF DANGERS

3.1 SPECIFIC DANGERS: *None*

4. FIRST AID

4.1 CONTACT WITH EYES:

Wash immediatly with water while spreading the eyelids. In case of obstinate irritation, consult an oculist.

4.2 CONTACT WITH SKIN:

Wash with soapy water and rinse with water.

4.3 INHALATION:

Move the person to open air, in case of indisposition, consult a doctor.

4.4 INGESTION:

In case of suspicions or if the sympton are recurent call a physician.

5. MEASURES AGAINST FIRE

5.1 MEANS OF EXTINCTION:

Advisable: Pulverized water, fire extinguisher.

Counter indication: None

Specific dangers: None

Protection of the intervening parties: None

6. ACCIDENTAL DISPERSION MEASURES

6.1 INDIVIDUAL PROTECTIONS:

Wear protective clothing.

6.2 PRECAUTIONS FOR THE PROTECTION OF THE ENVIRONMENT:

Avoid sewer dumping.

6.3 CLEANING INSTRUCTIONS:

RECOVERY:

Vaccum Cleaning.

CLEANING:

Use soapy water.

7. HANDLING AND STORAGE

7.1 HANDLING:

Handle avoiding dust emission.

7.2 PRECAUTIONS:

Capture of dusts at the emission source.

7.3 STORAGE:

Stable product in normal storage conditions.

7.4 STORING ADVISE:

Keep bags or buckets away from humidity.

7.5 INCOMPATIBLE MATTERS:

None to our knowledge.

MATERIAL PACKING:

Paper bag or plastic.

8 • EXPOSURE CONTROL / INDIVIDUAL PROTECTION

8.1. RESPIRATORY PROTECTION:

Wear a protecting mask against dusts.

8.2. HANDS PROTECTION:

Wear suitable gloves.

8.3. EYES PROTECTION:

Wear protective glasses.

8.4. SPECIFIC HYGIENE MEASURES:

No food, no drinks, no smoking during use.

9. CHEMICAL AND PHYSICAL PROPERTIES

9.1. PHYSICAL STATE:

Powder

9.2. COLOR:

Greenish

9.3. DECOMPOSITION TEMPERATURE:

180° C / 356 ° F

9.4. OBVIOUS DENSITY:

0,74 g / cm3 - 2.61 ounce / 0.06 cubic inch

10. STABILITY AND REACTIVITY

10.1 STABILITY:

Stable in normal storage conditions.

10.2 HARMFUL REACTIONS:

None, in normal conditions of use.

11. TOXICOLOGICAL INFORMATION

11.1 CUTANEOUS IRRITATION: *Non irritant*

11.2 OCULAR IRRITATION: *Non irritant*

12. ECOLOGICAL INFORMATION

12.1 IMPACT ON THE ENVIRONMENT / ECOTOXICITY

Ames Test: Negative

13. ELIMINATION CONNECTED CONSIDERATIONS

13.1 PRODUCT NEUTRALIZATION AND DESTRUCTION PROCEDURE:

Eliminate in a controled dump.

13.2 CONTAMINATED PACKING DESTRUCTIVE PROCEDURE:

No reusable packing, to be eliminated in a controled dump.

14. RELATIVE INFORMATION TO THE TRANSPORTATION

14.1 INTERNATIONAL REGULATION:

This product is not regulated.

15. AUTHORIZED INFORMATION

No dangerous product for the transportation regulation

16. OTHER INFORMATION

16.1 OTHER:

This safety card has been achieved in accordance with T01-102/12/92 guideline and 91/155/EG.

The indicated information is based on the state of our knowledge of the concerned product.

Information and recommendations contained in this form are only based on estimated data.

Nevertheless it can be given no insurance or relative guarantee to the present information.

MATERIAL SAFETY DATA SHEET

ACCORDING TO DIRECTIVE 91/155/EEC

1. IDENTIFICATION OF THE SUBSTANCE, THE PREPARATION AND THE COMPANY

1.1	IDENTIFICATION OF THE SUBSTANCE	**INDIAN NATURAL YELLOW OXIDE**
1.2	IDENTIFICATION OF THE COMPANY	**STE OCRES DE FRANCE** **Impasse des Ocriers** **F - 84401 APT CEDEX** **Tél: 04.90.74.63.82 / FAX: 04. 90.74.46.75**
1.3	EMERGENCY PHONE NUMBER	Telephone : + 33 (0) 4.90.74.47.67 Telephone : + 33 (0) 4.90.74.63.82

2. COMPOSITION / INFORMATION OF THE COMPONENTS

2.	COMPOSITION	FE203 – S102

3. IDENTIFICATION OF DANGERS

	SPECIFIC DANGERS :	None

4. FIRST HELP

4.1.	CONTACT WITH EYES	Wash with water while spreading the eyelids In case of obstinate irritation, consult an oculist.
4.2.	CONTACT WITH SKIN	Wash with soapy water and rinse with water
4.3.	INHALATION	Move the person to open air. In case of sickness, consult a doctor
4.4.	INGESTION	In case of suspicions or recurrent symptoms call a doctor

5. BATTLE AGAINST FIRE MEASURES

	MEANS OF EXTINCTION :	
5.1.	Advisable :	Pulverized water, fire extinguisher.
5.2.	Counter indication:	none
5.3.	Specific dangers :	none
5.4.	Protection of the intervening parties :	none

6. MEASURES TO TAKE IN CASE OF ACCIDENTAL DISPERSION

6.1.	INDIVIDUAL PROTECTIONS :	Wear protective clothing
6.2.	PRECAUTIONS FOR THE PROTECTION OF THE ENVIRONMENT :	Avoid sewer dumping
6.3.	CLEANING INSTRUCTIONS:	None
6.4.	RECOVERY:	Vacuum Cleaning
6.5.	CLEANING:	Use soapy water

7. HANDLING AND STORAGE

7.1.	HANDLING	Handle avoiding dust emission.
7.2.	PRECAUTIONS	Capture of dusts at the emission source.
7.3.	STORAGE	Stable product in normal storage conditions.
7.4.	STORING ADVISE	Keep bags or buckets away from humidity.
7.5.	INCOMPATIBLE MATTERS	None to our knowledge
7.6.	MATERIAL PACKING	Paper bag or plastic bucket

8. EXPOSURE CONTROL / INDIVIDUAL PROTECTION

8.1.	RESPIRATORY PROTECTION	Wear a protecting mask against dusts
8.2.	HANDS PROTECTION	Wear suitable gloves
8.3.	EYES PROTECTION	Wear protective glasses
8.4.	SPECIFIC HYGIENE MEASURES	No food, no drinks, no smoking during use

9. CHEMICAL AND PHYSICAL PROPERTIES

9.1.	PHYSICAL STATE	Powder
9.2.	COLOR	Yellow
9.3.	ODOR	Odourless
9.4.	TEMPERATURE OF FUSION	700C

10. STABILITY AND REACTIVITY

10.1 STABILITY	Stable in normal storage conditions.
10.2 HARMFUL REACTIONS	None, in normal conditions of use.

11. TOXICOLOGICAL INFORMATION

11.1 CUTANEOUS IRRITATION	Non irritant
11.2 OCULAR IRRITATION	Non irritant

12. ECOLOGICAL INFORMATION

IMPACT ON THE ENVIRONMENT / ECOTOXICITY
"Ames" Test: Negative

13. ELIMINATION CONNECTED CONSIDERATIONS

13.1. PROCEDURE OF NEUTRALIZATION AND DESTRUCTION OF THE PRODUCT
Eliminate in a controlled dump
13.2. PROCEDURE OF DESTRUCTION OF THE CONTAMINATED PACKING /
No reusable packing, to be eliminated in a controlled dump

14. RELATIVE INFORMATION TO THE TRANSPORTATION

14.1	GGVSee/IMDG CODE	---
14.2	GGVE/GGVS	---
14.3	UN No.	---
14.4	RID / ADR	---
14.5	ICAO / IATA-DGR	---
14.6	ADNR	---

INTERNATIONAL REGULATION : This product is not regulated. Sensible to humidity. Keep away from food, acids and its basis.

15. AUTHORIZED INFORMATION

No dangerous product for the transportation regulation

16. OTHER INFORMATION

This safety card has been achieved in accordance with T01-102/12/92 guideline and 91/155/EG. The indicated information is based on the state of our knowledge of the concerned product. Information and recommendations contained in this form are only based on estimated data. Nevertheless it can be given no insurance or relative guarantee to the present information. **SOCIETE DES OCRES DE FRANCE. F - 84401 APT CEDEX**

Blaze Orange

SAFETY DATA SHEET

DayGlo

Revision Date 08-May-2018
Version 3.01

1. Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier

Product name Blaze Orange™ Pigment
Product code AX-15-N

1.2 Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Pigment
Restrictions on use No information available

1.3 Details of the supplier of the safety data sheet

Supplier

DayGlo Color Corp.
4515 St. Clair Avenue
Cleveland, OH 44103
(216) 391-7070
+1 216-391-7070 (outside the US) This telephone number is available during office hours only.

E-mail Address ehs@dayglo.com

1.4 Emergency telephone number

Emergency telephone number

Chemtrec: +1 703-527-3887 ex-USA
Chemtrec: 1-800-424-9300 USA

2. Hazards identification

2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910.1200

Acute toxicity - Inhalation (Dusts/Mists)	Category 4

2.2 Label elements

Signal Word
Warning

Hazard Statements
Harmful if inhaled

Precautionary Statements - Prevention
Avoid breathing dust/fume/gas/mist/vapors/spray
Use only outdoors or in a well-ventilated area

Precautionary Statements - Response

IF INHALED: Remove person to fresh air and keep comfortable for breathing
Call a POISON CENTER or doctor if you feel unwell

2.3. Other Hazards Hazards not otherwise classified (HNOC)
Not Applicable

2.4 Other information

Not Applicable

Unknown Acute Toxicity 1.0100007% of the mixture consists of ingredient(s) of unknown toxicity

3. Composition/Information on Ingredients

Substance
Mixture

Chemical Name	CAS No.	Weight-%
C.I. Basic Red 1:1	3068-39-1	1 - 5

The exact percentage (concentration) of composition has been withheld as a trade secret.

4. First aid measures

4.1 Description of first-aid measures

General advice No information available.

Eye contact Immediately flush with plenty of water. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Skin contact Immediate medical attention is not required. Wash off with soap and water.

Inhalation Immediate medical attention is not required. Move to fresh air.

Ingestion Do NOT induce vomiting. Drink plenty of water. Consult a physician.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms See Section 2.2, Label Elements and/or Section 11, Toxicological effects.

4.3 Indication of any immediate medical attention and special treatment needed

Notes to physician Treat symptomatically.

5. Fire-Fighting Measures

5.1 Extinguishing media

Suitable extinguishing media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media None.

5.2 Special hazards arising from the substance or mixture

Special Hazard
None known based on information supplied.

Hazardous Combustion Products Carbon oxides. Nitrogen oxides (NOx). Oxides of sulfur.

Explosion Data
Sensitivity to Mechanical Impact None.
Sensitivity to Static Discharge Fine dust dispersed in air, in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

5.3 Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. Accidental Release Measures

6.1 Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation, especially in confined areas. Use personal protective equipment.

6.2 Environmental precautions

Dust deposits should not be allowed to accumulate on surfaces as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration. Avoid dispersal of dust in the air (i.e., cleaning dusty surfaces with compressed air). Nonsparking tools should be used. Prevent product from entering drains.

6.3 Methods and materials for containment and cleaning up

Methods for Containment Prevent dust cloud. Cover powder spill with plastic sheet or tarp to minimize spreading.

Methods for cleaning up Use personal protective equipment. Take up mechanically and collect in suitable container for disposal. Avoid dust formation. Take precautionary measures against static discharges. Do not dry sweep dust. Wet dust with water before sweeping or use a vacuum to collect dust. Prevent product from entering drains. Keep in suitable and closed containers for disposal.

7. Handling and storage

7.1 Precautions for safe handling

Advice on safe handling Avoid dust formation. Take precautionary measures against static discharges. Fine dust dispersed in air may ignite. Wear personal protective equipment.

Hygiene measures Handle in accordance with good industrial hygiene and safety practice.

7.2 Conditions for safe storage, including any incompatibilities

Storage Conditions Keep tightly closed in a dry and cool place.

Materials to Avoid No materials to be especially mentioned.

8. Exposure controls/personal protection

8.1 Exposure Guidelines

8.2 Appropriate engineering controls

Engineering Measures Showers
Eyewash stations
Ventilation systems.

8.3 Individual protection measures, such as personal protective equipment

Eye/Face Protection Safety glasses with side-shields.

Skin and body protection Wear chemical resistant footwear and clothing such as gloves, an apron or a whole body suit as appropriate.

Respiratory protection . NIOSH/MSHA approved respiratory protection should be worn if exposure is anticipated.

Hygiene measures See section 7 for more information

9. Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	Solid		
Appearance	Powder	**Color**	Orange
Odor	Pungent	**Odor Threshold**	No information available

Property	Values	Remarks • Methods
pH	Not Applicable	
Melting/freezing point	110 °C / 230 °F	
Boiling point/boiling range	Not applicable	No information available
Flash Point	Not Applicable	No information available
Evaporation rate	Not Applicable	No information available
Flammability (solid, gas)		No information available
Flammability Limits in Air		
upper flammability limit		No information available
lower flammability limit		No information available
Vapor pressure	Not Applicable	
Vapor density	Not Applicable	
Specific Gravity	1.36	
Water solubility	Insoluble in water	
Solubility in other solvents		No information available
Partition coefficient		No information available
Autoignition temperature		No information available
Decomposition temperature		No information available
Viscosity, kinematic		No information available
Viscosity, dynamic		No information available
Explosive properties	Fine dust dispersed in air may ignite	
Oxidizing Properties		No information available

9.2 Other information

Volatile organic compounds (VOC) content None

10. Stability and Reactivity

10.1 Reactivity

No dangerous reaction known under conditions of normal use

10.2 Chemical stability

Stable

10.3 Possibility of hazardous reactions

None under normal processing.

10.4 Conditions to Avoid

Dust formation. Take precautionary measures against static discharges.

10.5 Incompatible Materials

None known based on information supplied.

10.6 Hazardous Decomposition Products

None known based on information supplied.

11. Toxicological information

11.1 Acute toxicity

Numerical measures of toxicity: Product Information

LD50 Oral:	LD50 Dermal:
> 16,000 mg/kg (rat)	> 23,000 mg/kg (rat)

The following values are calculated based on chapter 3.1 of the GHS document

Unknown Acute Toxicity 1.0100007% of the mixture consists of ingredient(s) of unknown toxicity

Oral LD50 44,455.00 mg/kg
LC50 (Dust/Mist) 4.90 mg/l

Numerical measures of toxicity: Component Information

Chemical Name	LD50 Oral	LD50 Dermal	LC50 Inhalation
C.I. Basic Red 1:1 3068-39-1	449 mg/kg (Rat)	2,500 mg/kg (Rat)	0.05 mg/l (4 hour)

11.2 Information on toxicological effects

Skin corrosion/irritation
Product Information
• May cause irritation
Component Information
• No information available

Serious eye damage/eye irritation
Product Information
• May cause irritation
Component Information
• No information available

Respiratory or skin sensitization
Product Information
• May be harmful if inhaled
Component Information
• No information available

Germ cell mutagenicity
Product Information
• No information available
Component Information
• No information available

Carcinogenicity
Product Information
• This product contains <0.1% free formaldehyde and may be capable of outgassing formaldehyde at levels in excess of OSHA's Action Level under some conditions of use. Formaldehyde is a known cancer hazard. Long term exposure may result in dermatitis or respiratory sensitization for sensitive individuals.
Component Information
• No information available

Reproductive toxicity
Product Information
• No information available
Component Information
• No information available

STOT - single exposure
No information available

STOT - repeated exposure

• No known effect

Other adverse effects
Product Information
• No information available
Component Information
• No information available

Aspiration hazard
Product Information
• No information available
Component Information
• No information available

12. Ecological information

12.1 Toxicity

Ecotoxicity No information available

< 1 % of the mixture consists of components(s) of unknown hazards to the aquatic environment

Ecotoxicity effects

12.2 Persistence and degradability

No information available.

12.3 Bioaccumulative potential

Discharge into the environment must be avoided

12.4 Mobility in soil

No information available.

12.5 Other adverse effects

No information available

13. Disposal Considerations

13.1 Waste treatment methods

Dispose of in accordance with federal, state, and local regulations.

14. Transport Information

DOT	Not regulated
MEX	Not regulated
IMDG	Not regulated
IATA	Not regulated

15. Regulatory information

15.1 International Inventories

TSCA	Complies
DSL	Complies
EINECS/ELINCS	Complies
ENCS	-
IECSC	Complies
KECL	Complies
PICCS	Complies
AICS	Complies
NZIoC	-

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory
DSL - Canadian Domestic Substances List
EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
ENCS - Japan Existing and New Chemical Substances
IECSC - China Inventory of Existing Chemical Substances
KECL - Korean Existing and Evaluated Chemical Substances
PICCS - Philippines Inventory of Chemicals and Chemical Substances
AICS - Australian Inventory of Chemical Substances
NZIoC - New Zealand Inventory of Chemicals

15.2 U.S. Federal Regulations

SARA 313
Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

15.3 Pesticide Information

Not applicable

15.4 U.S. State Regulations

California Proposition 65

This product contains the following Proposition 65 chemicals:

Chemical Name	California Prop. 65
Formaldehyde - 50-00-0	Carcinogen
C.I. Basic Violet 10 - 81-88-9	Carcinogen

16. Other information

NFPA	Health Hazard 0	Flammability -	Instability -	Physical and chemical hazards -
HMIS	Health Hazard 2	Flammability 1	Physical Hazard 0	Personal protection X

Legend:

ACGIH (American Conference of Governmental Industrial Hygienists)
Ceiling (C)
DOT (Department of Transportation)
EPA (Environmental Protection Agency)
IARC (International Agency for Research on Cancer)
International Air Transport Association (IATA)
International Maritime Dangerous Goods (IMDG)
NIOSH (National Institute for Occupational Safety and Health)
NTP (National Toxicology Program)
OSHA (Occupational Safety and Health Administration of the US Department of Labor)
PEL (Permissible Exposure Limit)
Reportable Quantity (RQ)
Skin designation (S)*
STEL (Short Term Exposure Limit)
TLV® (Threshold Limit Value)
TWA (time-weighted average)

Prepared By

DayGlo Color Corp.
Regulatory Affairs/Product Safety

Revision Date

08-May-2018

Revision Note

No information available

Disclaimer

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.

End of Safety Data Sheet

Jackson's

SAFETY DATA SHEET

JACKSON'S ARTIST PIGMENTS

PRODUCT NAME: JACKSON'S ARTIST PIGMENT (EARTH)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1 Product identifier: JACKSON'S ARTIST PIGMENT (EARTH)

Includes: Cadmium Lemon, Cadmium Yellow Pale, Cadmium Yellow Deep, Cadmium Orange, Cadmium Vermilion, Cadmium Red Light, Cadmium Red Deep, Cadmium Red Rubine, Cadmium Red Brownish, Cobalt Green Light, Cobalt Turquoise, Cobalt Blue Deep, Cobalt Blue Light, Cobalt Cerulean Blue, Nickel Titanate Yellow, Titanium Orange, Chromium Green Oxide (Kiwi Shade), Hansa Yellow Light, Benzymidazole Yellow, Nickel Azo Yellow, Hansa Yellow Medium, Hansa Yellow Deep, Permanent Orange, Benzymidazole Orange, Pyrrole Red, Permanent Red, Azo Red, Ultramarine Pink, Potter's Pink, Ultramarine Violet, Manganese Violet Deep, Quinacridone Violet, Quinacridone Magenta, Ultramarine (Red Shade), Ultramarine Blue (Green Shade), Prussian Blue Permanent, Phthalo Blue (Green Shade), Phthalo Green (Blue Shade), Lamp Black Intense, Carbon Black Deep, Ivory Black, Titanium White Rutile, Zinc White, Titanium White Anatase, Graphite Silver, Graphite Black

1.2 Details of the supplier of the safety data sheet:

Jackson's Art Supplies
1 Farleigh Place
N16 7SX London
jacksonsart.com

Telf: +44 (0)207 254 0077
9-5:30 Mon-Fri
10-6 Saturday

SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture
Classification under CLP: This product has no classification under CLP.
Label elements: This product has no label elements.
Other hazards: This substance is not identified as a PBT substance.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Name Colour Index CAS No.

Cadmium Lemon PY35 8048-07-5 Cadmium Yellow Pale PY35 8048-07-5 Cadmium Yellow Deep PY37 68859-25-6 Cadmium Orange PO20 12656-57-4
Cadmium Vermilion PR108 58339-34-7 Cadmium Red Light PR108 58339-34-7 Cadmium Red Deep PR108 58339-34-7 Cadmium Red Brownish PR108 58339-34-7 Cobalt Green Light PG50 68186-85-6 Cobalt Turquoise PB36 68187-11-1 Cobalt Blue Deep PB72 68186-87-8 Cobalt Blue Light PB28 1333-88-6
Cobalt Cerulean Blue PB36 68187-11-1 Nickel Titanate Yellow PY53 8007-18-9 Titanium Orange PBr24 68186-90-3 Chromium Green Oxide (Kiwi Shade) PG17 1308-38-9 Hansa Yellow Light PY3 6486-23-3 Benzymidazole Yellow PY154 68134-22-5 Nickel Azo Yellow PY150 68511-62-6 Hansa Yellow Medium PY74 6358-31-2 Hansa Yellow Deep PY65 6528-34-3 Permanent Orange PO62 52846-56-7 Benzymidazole Orange PO36 12236-62-3 Pyrrole Red PR254 122390-98-1 Permanent Red PR170 2786-76-7 Azo Red PR144 5280-78-4 Ultramarine Pink PR259 12769-96-9 Potter's Pink PR233 68187-12-2 Ultramarine Violet PV15 12769-96-9 Manganese Violet Deep PV16 10101-66-3 Quinacridone Violet PV19 1047-16-1 Quinacridone Magenta PR122 16043-40-6 Ultramarine (Red Shade) PB29 1317-97-1 Ultramarine Blue (Green Shade) PB29 1317-97-1 Prussian Blue Permanent PB27 25869-00-5 Phthalo Blue (Green Shade) PB15:3 147-14-8 Phthalo Green (Blue Shade) PG7 1328-53-6 Lamp Black Intense PBk6 1333-86-4 Carbon Black Deep PBk7 1333-86-4 Ivory Black PBk9 8021-99-6 Titanium White Rutile PW6 13463-67-7

Zinc White PW4 1314-13-2 Titanium White Anatase PW6 13463-67-7 Graphite Silver PBk10 7782-42-5 Graphite Black PBk10 7782-42-5

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures:

Eye Contact: Flush eye with flowing water. Check for and remove any contact lenses. Get medical attention if irritation occurs.
Skin Contact: Wash contaminated skin with soap & water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
Inhalation: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed.
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. Get medical attention if symptoms occur. In each case if symptoms develop seek medical attention.
Most important symptoms and effects, both acute and delayed Potential acute health effects
Eye contact: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards. Over-exposure signs/symptoms
Eye contact: Adverse symptoms may include the following: irritation, redness
Inhalation: Adverse symptoms may include the following: respiratory tract irritation, coughing
Skin contact: No specific data.
Ingestion: No specific data.

Indication of any immediate medical attention and special treatment needed
Notes to physician: In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.
Specific treatments: No specific treatment

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media
Suitable extinguishing media: No restriction in fire situations. Suitable extinguishing media for the surrounding fire should be used. Avoid use of a solid water stream or jet as it may scatter and spread fire.
Unsuitable extinguishing media: Water jet.

Special hazards arising from the substance or mixture
Hazards from the substance or mixture: Fine dust clouds may form explosive mixtures with air.
Hazardous thermal decomposition products: Decomposition products may include the following materials:
carbon dioxide carbon monoxide nitrogen oxides halogenated compounds smoke oxides of nitrogen
Advice for firefighters
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. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool.
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. Clothing for fire-fighters (including helmets, protective boots and gloves) conforming to European standard EN 469 will provide a basic level of protection for chemical incidents.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
For non-emergency personnel: 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. Shut

off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing dust. Put on appropriate personal protective equipment.

For emergency responders: If specialised clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in 'For non-emergency personnel'.

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

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labelled waste container. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Large spill: Move containers from spill area. Approach release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labelled waste container. Avoid creating dusty conditions and prevent wind dispersal. Use spark-proof tools and explosion proof equipment. Dispose of via a licensed waste disposal contractor. Note: see section 1 for emergency contact information and section 13 for waste disposal.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Protective measures: Put on appropriate personal protective equipment (see Section 8). Avoid breathing dust. Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Prevent dust accumulation. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Electrical equipment and lighting should be protected to appropriate standards to prevent dust coming into contact with hot surfaces, sparks or other ignition sources. Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material.

Advice on general occupational hygiene: Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

Conditions for safe storage, including any incompatibilities: Store in accordance with local regulations. Store in a segregated and approved area. 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. Eliminate all ignition sources. Separate from oxidizing materials. 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 unlabelled containers. Use appropriate containment to avoid environmental contamination.

Specific end use(s)

Recommendations: Not available.

Industrial sector specific solutions: Not available.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters occupational exposure limits

General Pigments: No exposure limit value known. Observe OEL limits for inhalable and respirable nuisance dust.

Mars Black: EH40/2005 WELs (United Kingdom (UK), 12/2011).

STEL: 10 mg/m³, (as Fe) 15 minutes. Form: Fume

TWA: 5 mg/m³, (as Fe) 8 hours. Form: Fume

DNEL : Dust Inhalable 10 mg/m³ , Respirable dust 3 mg/m³

Exposure controls

Appropriate engineering controls: Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapour 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. The engineering controls also need to keep gas, vapour or dust concentrations below any lower explosive limits. Use explosion-proof ventilation equipment.

Individual protection measures

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.

Eye protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles.

Hand protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.

Body protection: Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Other skin protection: Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls: Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Powder
Odour: None
Melting point: General Products: >1000°C
Manganese Violet: >400 °C
Prussian Blue: >140°C
Phthalos x 2: >200 °C
Quinacridone Magenta: >180 °C
Phthalo Green: >220 °C
Decomposition temperature: Mars Black >80 °C
Flash point: N/A.
Ph: 4-11Solubility: Insoluble in water.
Flammability: N/A
Boiling point: N/A

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. Under normal conditions of storage and use, hazardous polymerization will not occur.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
No specific test data related to reactivity available for this product or its ingredients.
Chemical stability: The product is stable. Under normal conditions of storage and use, hazardous polymerization will not occur.
Possibility of hazardous reactions: Under normal conditions of storage and use, hazardous reactions will not occur.
Conditions to avoid: Avoid the creation of dust when handling and avoid all possible sources of ignition (spark or flame). Take precautionary measures against electrostatic discharges. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. Prevent dust accumulation.
Incompatible materials:
Reactive or incompatible with the following materials: oxidizing materials
Hazardous decomposition products: Under normal conditions of storage and use, hazardous decomposition products should not be produced except:
Manganese Violet: Ammonium salts given off during combustion/decomposition.
Quinacridones, Phthalo Blue, Phthalo Green: Hydrogen chloride (HCL), Oxides of carbon, copper and nitrogen given off during combustion/decomposition.
Pyrrol Red - substances to avoid: strong oxidizing agents, strong bases, strong acids. Prussian Blue: ammonia, hydrogen cyanide, dicyanogen and nitrous oxides given off during combustion/decomposition.
Ultramarine Products: React with acids releasing hydrogen sulphide gas.
Viridian Green: A small amount (<0.1%as Cr) of reversion to hexavalent chromium may occur if the dry chromium (III) oxide powder is exposed to elevated temperatures.
Carbon Black, Lamp Black: May react exothermically upon contact with strong oxidizers. Ivory Black: In combustion emits toxic fumes of carbon dioxide/carbon monoxide.
Mars Black: At temperatures above 80 °C the product may become unstable and oxidise. This generates additional heat which, under unfavourable conditions, may result in the combustion of flammable materials.
The product should therefore not be stored near heat sources.

SECTION 11: TOXICOLOGICAL INFORMATION

Eye contact: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the eyes.
Inhalation: Exposure to airborne concentrations above statutory or recommended exposure limits may cause irritation of the nose, throat and lungs. Exposure to decomposition products may cause a health hazard. Serious effects may be delayed following exposure.
Skin contact: No known significant effects or critical hazards.
Ingestion: No known significant effects or critical hazards
Symptoms related to the physical, chemical and toxicological characteristics

Eye contact: Adverse symptoms may include the following: irritation, redness
Inhalation:
Adverse symptoms may include the following: respiratory tract irritation, coughing
Skin contact: No specific data.
Ingestion: May cause discomfort if swallowed.
Delayed and immediate effects and also chronic effects from short and long term exposure
Short term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Long term exposure
Potential immediate effects: Not available.
Potential delayed effects: Not available.
Potential chronic health effects: Not available.
Conclusion/Summary: Not available.
General: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
Carcinogenicity: No known significant effects or critical hazards.
Mutagenicity: General Pigments: No known significant effects or critical hazards.
Mars Black: Repeated or prolonged inhalation of dust may lead to chronic respiratory irritation.
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.
Other information: Not available.
Oral Toxicity: General Products LD50 (rat)>10g/Kg
Hansa Yellow Light LD50 (rat)>2g/Kg
Quinacridone Violet LD50 (rat)>5g/Kg
Manganese Violet LD50 (rat)>12.9g/Kg
Alizarin Crimson LD50 (rat)>2g/Kg
Permanent Red LD50 (rat)>5g/Kg
Quinacridone Magenta LD50 (rat)>2g/Kg
Ultramarine Blue LD50 (rat)>5g/Kg
Cadmium Lemon LD50 (rat)>1.2g/Kg
Cadmium Red LD50 (rat)>5g/Kg
Cobalt Blue LD50 (rat)>2g/Kg
Prussian Blue LD50 (rat)>5.1g/Kg

SECTION 12: ECOLOGICAL INFORMATION

Toxicity Conclusion/Summary: Not available.
Persistence and degradability Conclusion/Summary: Not available.
Bioaccumulative potential
General Products: Not available.

Mobility in soil
Soil/water partition coefficient (Koc): Not available
Mobility: Not available
Results of PBT and vPvB assessment
PBT: Not available.
P: Not available. B: Not available. T: Not available.
vPvB: Not available.
vP: Not available. vB: Not available.
Other adverse effects
No known significant effects or critical hazards.
Notes
The product is virtually insoluble in water and thus can be separated from water mechanically in suitable effluent treatment plants.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods
Product
Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Significant quantities of waste product residues should not be disposed of via the foul sewer but processed in a suitable effluent treatment plant. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any

by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements.
Examine possibilities for recycling. Return large quantities to the manufacturer.
Hazardous waste: Within the present knowledge of the supplier, this product is not regarded as hazardous waste, as defined by EU Directive 91/689/EEC
Packaging
Methods of disposal: The generation of waste should be avoided or minimized wherever possible. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible.
Special precautions: This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

SECTION 14: TRANSPORT INFORMATION

Not regulated for transport. Keep separated from foodstuffs.

SECTION 15: REGULATORY INFORMATION

Labelling
This product is not a substance subject to mandatory marking.
Safety, health and environmental regulations/legislation specific for the substance or mixture.
EU Regulation (EC) No. 1907/2006 (REACH): Not listed

SECTION 16: OTHER INFORMATION

This product should be stored, handled and used in accordance with good hygiene practices and in conformity with any legal regulations.
To best of our knowledge the information contain herein is accurate. However, neither the above supplier assumes any liability whatsoever for the accuracy or completeness of the information herein Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

FICHE DE DONNEES DE SECURITE Conforme au règlement (CE) n°1907/2006 (REACH),n°2015/830

SAFETY DATA SHEET

Rubrique 1 :IDENTIFICATION OF THE SUBSTANCE, THE PREPARATION AND THE COMPANY

1.1 Identification of the substance

NATURAL SIENNA

1.2Relevant identified uses of the substance or mixture and uses advised against

Coloring material for building materials and use of creative hobbies

1.3Manufacturer information

STE DES OCRES DE France
Impasse des Ocriers
84400 – APT – France
www.ocresdefrance.fr

1.3 emergency number

www.centres-antipoison.net 01 40 05 48 48 (centre anti-poison)

Rubrique 2 : IDENTIFICATION OF RISKS

2.1 classification of the substance or mixture in accordance with Regulation (EC) No 1272/2008 and its adjustments.

This substance is not classified as dangerous according to Directive 67/548 / EEC and its amendments.
For more details on health consequences and symptoms, see section 11.

2.2 labeling elements in accordance with Regulation (EC) No 1272/2008 and its adaptations.

No labeling element is required

2.3 Another dangers

The substance does not meet the criteria for PBT or vPvB substances according to Annex XIII of REACH Regulation (CE) No 1907/2006

Rubrique 3: COMPOSITION / INFORMATION ON COMPONENTS

CI : Y 43
Composition : SiO_2 +Al_2O_3+Fe_2O_3
Substance/ préparation : substance
Numéros cas : no
Numéros einecs : no
To the present knowledge of the supplier, this product does not contain any ingredients that are hazardous to require a statement in this section, in accordance with EU regulations or national regulations.
REACH: the substance is not subject to REACH according to Annex V

Rubrique 4: FIRST AID

Sienne naturelle

Transport the person to the fresh air. In case of fainting, place the person in a lateral safety position.
Immediately flush eyes with plenty of water, occasionally lifting the eyelids. Check if the victim wears contact lenses and in this case remove them.
If irritation occurs, consult a doctor.

Rubrique 5: FIRE FIGHTING MEASURES

The substance is not flammable. In case of fire, spray with water (in fog), foam, dry chemical or carbon dioxide.

Rubrique 6: MEASURES TO BE TAKEN IN CASE OF ACCIDENTAL RELEASE

Provide adequate ventilation. Put on appropriate personal protective equipment.
Avoid dispersal and spillage of the spilled product and contact with soil, surrounding aquatic environment, sewers or drains.

Rubrique 7: HANDLING AND STORAGE

No special measures required

Rubrique 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

Wash hands, forearms and face after handling product.
Recommended: dust mask
Avoid contact with eyes. Use eye protection in accordance with an approved standard
Personal protective equipment for the body should be selected according to the task to be performed and the risks involved.

Rubrique 9: PHYSICAL AND CHEMICAL PROPERTIES

general informations
Physical state: powder
Color :yellow
Odor: odorless
PH: 7
Melting point: not available
Bulk density: 900 g / l
Solubility: insoluble

Rubrique 10: STABILITY AND REACTIVITY

The product is stable
Under normal conditions of storage and use, no hazardous decomposition products should appear.

Rubrique 11: TOXICOLOGICAL INFORMATION

Any effects of chronic toxicity or sensitization are virtually excluded by
that his natural solid is a natural mineral of the earth's surface and, in the dissolved state,
a natural constituent of water in nature.

Rubrique 12: ECOLOGICAL INFORMATION

Sienna naturelle is, in the solid state, a mineral, natural constituent of the earth. In the dissolved state, the substance is a natural constituent of water in nature. Therefore, adverse effects on the environment can be excluded. His own can not be biodegraded

Rubrique 13: CONSIDERATIONS RELATING TO ELIMINATION

In general: Check the suitability of the product for reuse. Uncleaned waste and uncleaned packaging must be packed or closed, labeled and disposed of at a destruction or recycling center in accordance with the national

legislation in force. Consult the manufacturer in case of large quantities. If uncleaned empty containers are forwarded, inform the consignee of the possible risks due to the residues of the product. For disposal within the EU, use the waste code in force according to the European Waste List (LED). All waste producers are required, among other things, to classify their waste according to the category and process code of the European Waste List (LED).

To the present knowledge of the supplier, this product is not considered a hazardous waste as defined by EU Directive 91/689 / EEC

Rubrique 14: TRANSPORT

This product is not subject to labeling. No special conditions

Rubrique 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations / legislation specific for the substance or mixture

- Classification and labeling information in section 2:
The following regulations have been taken into account:
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 487/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 758/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 944/2013
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 605/2014
- Règlement (CE) n° 1272/2008 modifié par le règlement (UE) n° 1297/2014
- Information about the packaging:
No data available.
- Particular dispositions :
No data available.

15.2. Chemical safety assessment

No data available.

Rubrique 16: ANOTHER INFORMATIONS

Abréviations :

ADR : Accord européen relatif au transport international de marchandises Dangereuses par la Route.
IMDG : International Maritime Dangerous Goods.
IATA : International Air Transport Association.
OACI : Organisation de l'Aviation Civile Internationale.
RID : Regulations concerning the International carriage of Dangerous goods by rail.
WGK : Wassergefahrdungsklasse (Water Hazard Class).
PBT : Persistante, bioaccumulable et toxique.
vPvB : Très persistante et très bioaccumulable.
SVHC : Substance of Very High Concern

Historical
Date of publication: April 2018
Date of the previous edition: October 2015

White

Bulk
APOTHECARY

Safety Data Sheet
Titanium Dioxide

SECTION 1: Identification

1.1 Product identifier

Product name	Titanium Dioxide
Product number	chem-6
Brand	Bulk Apothecary

1.4 Supplier's details

Name	Bulk Apothecary
Address	115 Lena Dr Aurora OH 44202 United States
Telephone	1-888-728-7612
email	sales@bulkapothecary.com

1.5 Emergency phone number(s)

Domestic: 1-800-633-8253 International: 801-629-0667

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

- Carcinogenicity, Cat. 2

2.2 GHS label elements, including precautionary statements

Pictogram

Hazard statement(s)

H351	Suspected of causing cancer [route]

Precautionary statement(s)

P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.

P280	Wear protective gloves/protective clothing/eye protection/face protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P405	Store locked up.
P501	Dispose of contents/container to ...

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Titanium(IV) oxide

Concentration	90 - 100 % (weight)
EC no.	236-675-5
CAS no.	13463-67-7

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

General advice	Consult a physician. Show this safety data sheet to the doctor in attendance.Move out of dangerous area.
If inhaled	If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact	Wash off with soap and plenty of water. Consult a physician.
In case of eye contact	Flush eyes with water as a precaution.
If swallowed	Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2 Most important symptoms/effects, acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Specific hazards arising from the chemical

Titanium/titanium oxides

5.3 Special protective actions for fire-fighters

Wear self contained breathing apparatus for fire fighting if necessary.

Further information

no data available

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Avoid breathing dust.
For personal protection see section 8.

6.2 Environmental precautions
Do not let product enter drains.

6.3 Methods and materials for containment and cleaning up
Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

Reference to other sections
For disposal see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling
Further processing of solid materials may result in the formation of combustible dusts. The potential for combustible dust formation should be taken into consideration before additional processing occurs.
Provide appropriate exhaust ventilation at places where dust is formed.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place.
Keep in a dry place.

Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

1. Titanium dioxide
PEL (Inhalation): 5 mg/m3 (Resp), 15 mg/m3 (Total) (OSHA)
Lower Respiratory Tract irritation

2. Titanium dioxide - Total dust (CAS: 13463-67-7)
PEL (Inhalation): See PNOR (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

REL (Inhalation): Ca, (ultrafine particles), 2.4 mg/m3 (fine), 0.3 mg/m3(ultrafine), See Appendix A, See Appendix C (NIOSH)
OSHA Annotated Table Z-1, www.osha.gov

TLV® (Inhalation): 10 mg/m3 (ACGIH)
OSHA Annotated Table Z-1, www.osha.gov

3. Titanium dioxide

PEL (Inhalation): 5 mg/m3 (Resp), 10 mg/m3 (Total) (Cal/OSHA)
OSHA Annotated Table Z-1, www.osha.gov

8.2 Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection
Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection
Choose body protection in relation to its type, to the concentration and amount of dangerous substances, and to the specific work-place., The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection
Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N99 (US) or type P2 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).
Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N95 (US) or type P1 (EN 143) dust masks. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	White nano particles
Odor	Odorless
Odor threshold	
pH	
Melting point/freezing point	
Initial boiling point and boiling range	
Flash point	
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	
Vapor pressure	
Vapor density	
Relative density	
Solubility(ies)	
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	

Explosive properties
Oxidizing properties

SECTION 10: Stability and reactivity

10.1 Reactivity
no data available

10.2 Chemical stability
Stable under recommended storage conditions.

10.3 Possibility of hazardous reactions
no data available

10.4 Conditions to avoid
no data available

10.5 Incompatible materials
Strong acids

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
no data available

SECTION 12: Ecological information

Toxicity
no data available

SECTION 13: Disposal considerations

Disposal of the product
Offer surplus and non-recyclable solutions to a licensed disposal company. Contact a licensed professional waste disposal service to dispose of this material. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

Disposal of contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

DOT (US)
Not dangerous goods

IMDG
Not dangerous goods

IATA
Not dangerous goods

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

California Prop. 65 Components
Titanium dioxide (airborne, unbound particles of respirable size)

WARNING! This product contains a chemical known to the State of California to cause cancer.
Titanium dioxide
CAS-No. 13463-67-7

New Jersey Right To Know Components
Chemical name: Titanium dioxide
CAS number: 13463-67-7

Pennsylvania Right To Know Components
Chemical name: Titanium dioxide
CAS number: 13463-67-7

SECTION 16: Other information

16.1 Further information/disclaimer

DISCLAIMER: The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigation to determine the suitability of information for their particular purposes. In no event shall Bulk Apothecary be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, whatsoever arising, even if Bulk Apothecary has been advised of the possibility of such damages.

Bulk
APOTHECARY

Woodland Green

Safety Data Sheet
Matte Woodland Green Pigment Powder

SECTION 1: Identification

1.1 Product identifier

Product name	Matte Woodland Green Pigment Powder
Product number	color-28
Brand	Bulk Apothecary

1.4 Supplier's details

Name	Bulk Apothecary
Address	115 Lena Dr Aurora OH 44202 United States
Telephone	1-888-728-7612
email	sales@bulkapothecary.com

1.5 Emergency phone number(s)

Domestic: 1-800-633-8253 International: 801-629-0667

SECTION 2: Hazard identification

General hazard statement
Not a hazardous substance or mixture

2.1 Classification of the substance or mixture

GHS classification in accordance with: OSHA (29 CFR 1910.1200)

Not a hazardous substance or mixture.

2.2 GHS label elements, including precautionary statements

Not a hazardous substance or mixture.

2.3 Other hazards which do not result in classification

Not a hazardous substance or mixture.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Hazardous components

1. Cosmeric Powder Colorant
Concentration: Not specified

SECTION 4: First-aid measures

4.1 Description of necessary first-aid measures

If inhaled	Remove to fresh air immediately. Contact physician if necessary.
In case of skin contact	Removed contaminated clothing and wash with soap and water.
In case of eye contact	Flush immediately with copious amounts of water. Contact physician if necessary.
If swallowed	Drink plenty of water and consult a physician.

SECTION 5: Fire-fighting measures

5.1 Suitable extinguishing media
Carbon dioxide, dry chemical or foam recommended

5.2 Specific hazards arising from the chemical
This product is not known to present any fire hazard

5.3 Special protective actions for fire-fighters
Fire personel should wear Self-contained breathing apparatus (SCBA) and full protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Safety glasses with side shields or goggles and rubber gloves. Provide adequate general mechanical exhaust

6.2 Environmental precautions
Prevent material from contaminating soil or entering sewerage and drainage systems

6.3 Methods and materials for containment and cleaning up
Use appropriate NIOSH/MSHA approved respirator. Wear chemical gloves, goggles, and lab coat. Carefully contain spilled material. Deposit spilled material in appropriate waste container

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Store in a cool, dry place. Keep away from excessive heat. Use in a well ventilated area. Wash hands after use.

7.2 Conditions for safe storage, including any incompatibilities
Store in tightly closed containers in ambient location.

SECTION 8: Exposure controls/personal protection

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection
Safety glasses with side shields or goggles

Skin protection
Wear rubber gloves. Wash hands after use.

Respiratory protection
Use NIOSH/MSHA approved air-purifying respirator to control exposure.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

Appearance/form (physical state, color, etc.)	Free Flowing Powder
Odor	Odorless
Odor threshold	
pH	
Melting point/freezing point	
Initial boiling point and boiling range	
Flash point	
Evaporation rate	
Flammability (solid, gas)	
Upper/lower flammability limits	
Vapor pressure	
Vapor density	
Relative density	
Solubility(ies)	
Partition coefficient: n-octanol/water	
Auto-ignition temperature	
Decomposition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	

SECTION 10: Stability and reactivity

10.1 Reactivity
Stable

10.2 Chemical stability
Stable

SECTION 11: Toxicological information

Information on toxicological effects

Acute toxicity
No data

SECTION 12: Ecological information

Toxicity
No data

SECTION 13: Disposal considerations

Disposal of the product
Dispose of in accordance with all applicable federal, state and local regulations. Material may be sent to an approved landfill or licensed treatment, storage and disposal facility.

SECTION 14: Transport information

DOT (US)
Not regulated

IMDG
Not regulated

IATA
Not regulated

SECTION 15: Regulatory information

HMIS Rating

Matte Woodland Green Pigment Powder	
HEALTH	1
FLAMMABILITY	0
PHYSICAL HAZARD	0
PERSONAL PROTECTION	

NFPA Rating

SECTION 16: Other information

16.1 Further information/disclaimer

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