

## E305-GR533 GRAY

### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** E305-GR533 GRAY

**PRODUCT USE: Industrial Powder Coating** 

**MANUFACTURER** 24 HR. EMERGENCY TELEPHONE NUMBER

Cardinal Paint and Powder CHEMTREC (US Transportation): (800)424-9300 **CHEMTREC (International Transportation)**: (202)483-7616 1329 Potrero Ave

S. El Monte, CA, 91733 WEB: WWW.CARDINALPAINT.COM 626 444-9274

### 2. HAZARDS IDENTIFICATION

#### **PICTOGRAMS:**



**SIGNAL WORD: WARNING** 

### **HAZARD STATEMENTS:**

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

H317 May cause an allergic skin reaction.

## PRECAUTIONARY STATEMENTS:

P201 Obtain special instructions before use.

P202 Do not handle until all safety precautions have been read and understood.

P260 Do not breathe dust.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number
Titanium Dioxide	15% - 20%	13463-67-7
Bisphenol A	1% - 5%	80-05-7
Carbon Black	0.10% - 0.50%	1333-86-4

## 4. FIRST AID MEASURES

#### Description of first aid measures.

EYE CONTACT: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center or doctor/physician.

SKIN CONTACT: Remove affected clothing and wash all exposed area with mild soap and water, followed by warm water rinse. Wash with plenty of soap and water. If skin irritation or rash occurs: Wash with plenty of soap and water. Get medical advice/attention. Wash contaminated clothing before reuse. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.



## **SAFETY DATA SHEET**

**ISSUED:** 8/22/2018 **REFERENCE:** GR533-E305

**INGESTION:** Rinse mouth. Do NOT induce vomiting. Obtain emergency medical attention. Call a Poison Center or doctor/physician of you feel unwell.

**INHALATION:** Allow victim to breathe fresh air. Allow victim to rest. Remove to fresh air and keep at rest in a position comfortable to breath. Call a Poison Center or doctor/physician if you feel unwell.

**Most important symptoms and effect, both acute and delayed :** Symptoms/Injuries: May cause genetic defects. Causes damage to organs. - After Inhalation: Danger of serious damage to health by prolonged exposure through inhalation. Harmful if inhaled. May cause an allergic skin reaction. May cause cancer by inhalation. - After Eye Contact: Causes serious eye damage. - After Ingestion: Swallowing a small quantity of this material may result in serious health hazard. Indication of any immediate medical attention and special treatment needed: No additional information available.

### **5. FIRE FIGHTING MEASURES**

SUITABLE EXTINGUISHING MEDIA: Foam, alcohol foam, dry chemical, carbon dioxide, water fog or sand.

UNSUITABLE EXTINGUISHING MEDIA: Do not use heavy water stream.

**FIRE FIGHTING PROCEDURE:** Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering the environment.

Protection during firefighting: Firefighters should wear full protective gear. Do not enter fire area without proper protective equipment, including self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure modes.

UNUSUAL FIRE AND EXPLOSION HAZARD: This product is stable at normal handling and storage conditions.

#### **6. ACCIDENTAL RELEASE MEASURES**

**PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES:** General measures: Remove ignition sources. Use special care to avoid static electric charges. No smoking.

FOR NON-EMERGENCY PERSONNEL: For non-Emergency procedures: Evacuate unnecessary personnel.

**FOR EMERGENCY RESPONDERS :** Protective equipment : Equip cleanup crew with proper protection. - Emergency procedures : Ventilate area.

**ENVIRONMENTAL PRECAUTIONS:** Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public water. Avoid release to the environment.

**METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP:** On land, sweep or shovel into suitable containers,. Minimize generation of dust.

#### 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when you are leaving work. Provide good ventilation in process area. Use only in well ventilated areas. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Eliminate all ignition sources if safe to do so. Avoid breathing dust, fumes and/or vapors.

Hygiene measures: Wash Skin thoroughly after handling.

**CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:** Avoid heat sources and direct sunlight. Store in a dry place. Protect from moisture. Keep container closed when not in use. Keep only in the original container in a cool well ventilated place away from heat, ignition sources and direct sunlight.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Source of ignition. Direct sunlight.



#### 8. EXPOSURE CONTROLS\PERSONAL PROTECTION

Amorphous Silica(112926-00-8)		
USA OSHA	USA OSHA TWA (Table Z-1)	6 mg/m3
USA OSHA	USA OSHA TWA (Tabla Z-3)	20 Million particals per cubic foot.
USA NIOSH	USA NIOSH TWA (REL)	6 mg/m3
Carbon Black(1333-86-4)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	3 mg/m3 8 hours
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	3.5 mg/m3 8 hours
NIOSH REL (Recommended Exposure	TWA (Time Weighted Average)	3.5 mg/m3 8 hours
Limit)		
NIOSH REL (Recommended Exposure	TWA (Time Weighted Average)	0.1mg of PAHs/cm3 10 hours
Limit )		
Glycerol(56-81-5)		
USA ACGIH	USA ACGIH TWA (TLV)	10 mg/m3
USA OSHA	USA OSHA TWA (OEL) Table Z-1	15 mg/m3
Iron Oxide(1309-37-1)		
USA ACGIH	USA ACGIG (TLV) TWA	5 mg/m3
USA OSHA	USA OSHA (OEL) TWA Table Z-1	15 mg/m3
USA NIOSH	USA NIOSH (REL) TWA	5 mg/m3
Titanium Dioxide(13463-67-7)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	10 mg/m3 8 hours
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	15 mg/m3 8 hours

#### PERSONAL PROTECTIVE EQUIPMENT

**RESPIRATORY PROTECTION:** Wear approved dust mask.

**HAND PROTECTION:** Wear protective gloves.

**EYE PROTECTION:** Chemical goggles or safety glasses.

**SKIN AND BODY PROTECTION:** Wear suitable protective clothing.

WORK HYGIENIC PRACTICES: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at

the end of workday.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Solid
Melting point	:	55 - 90 deg C
Flash point	:	No data available.
Lower explosion limit	:	10 g/m <sup>3</sup>
Upper explosion limit	:	70 g/m <sup>3</sup>
Density	:	1.5672
Solubility	:	No data available.
Autoignition temperature	:	No data available.
Decomposition temperature	:	No data available.

### 10. STABILITY AND REACTIVITY

**REACTIVITY:** This product is stable at normal handling and storage conditions.

CHEMICAL STABILITY: Stable under normal conditions.

**CONDITIONS TO AVOID:** Direct sunlight. Extremely high or low temperatures.

**INCOMPATIBLE MATERIALS:** Strong acids. Strong bases.

HAZARDOUS DECOMPOSITION PRODUCTS: Fume. Carbon monoxide. Carbon dioxide.



## 11. TOXICOLOGICAL INFORMATION

Acute toxicity: Inhalation no data available no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no component of this product present at levels greater than or equal to no data available no component of this product present at levels greater than or equal to no data available no	A	
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Aspiration hazard  Additional information  Prolonged inhalation of dust may cause baritosis, a benign pneumoconiosis. If ingested, the presence of soluble barium salts as impurities may cause toxic reactions due to bioaccumulation., Damage to the lungs., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Additional information  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h	, , , , , , , , , , , , , , , , , , , ,	No data available
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pneumoconiosis. If ingested, the presence of soluble barium salts as impurities may cause toxic reactions due to bioaccumulation., Damage to the lungs., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Additional information  Stomach irregularities - based on human evidence  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h		
impurities may cause toxic reactions due to bioaccumulation., Damage to the lungs., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Additional information  Stomach irregularities - based on human evidence  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h	Additional information	
the lungs., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Additional information  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h		
toxicological properties have not been thoroughly investigated.  Additional information Stomach irregularities - based on human evidence  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h		
toxicological properties have not been thoroughly investigated.  Additional information Stomach irregularities - based on human evidence  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h		
Additional information Stomach irregularities - based on human evidence  Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h		
Bisphenol A(80-05-7)  Acute toxicity - oral - LD50 - male and female rat  Acute toxicity - inhalation - LC50 - male  170 mg/m3 / 6 h	Additional information	
Acute toxicity - oral - LD50 - male and female rat > 2000 - 5000 mg/kg  Acute toxicity - inhalation - LC50 - male 170 mg/m3 / 6 h		
female rat Acute toxicity - inhalation - LC50 - male 170 mg/m3 / 6 h		> 2000 - 5000 mg/kg
Acute toxicity - inhalation - LC50 - male 170 mg/m3 / 6 h		J. J
		170 mg/m3 / 6 h
	and female rat	- Ji ···- i - ··



Acute toxicity - dermal - LD50 - rabbit	6400 mg/kg
Skin irritation - rabbit	No skin irritation / 4 h
Eye irritation - rabbit	Severe eye irritation / 24 h
Respiratory or skin sensitisation	No data available
Germ cell mutagenicity - Ames test - S.	Negative
	Negative
typhimurium	No. 12
Germ cell mutagenicity - male and female	Negative
mouse	
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible, or confirmed human carcinogen by IARC
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen
OSHA	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Specific targtet organ toxicity - single	Inhalation - may cause respiratory irritation
exposure	Initialation - may cause respiratory initiation
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
	No data available
Additional information - repeated dose toxicity - male and female rat - oral	Lowest observed adverse effect level - 600 mg/kg
Additional information	To the best of our knowledge, the chemical, physica, and toxicological
	properties have not been thoroughly investigated.
Additional information	Stomach irregularities based on human evidence
Carbon Black(1333-86-4)	
LD50 Oral - Rat	> 8,000 mg/kg, male and female, (OECD Test Guideline 401)
LD50 Inhalation - Rat	No data available
LD50 Dermal - Rabbit	> 3,000 mg/kg
Skin corrosion/irritation	No skin irritation - 24 h, (OECD Test Guideline 404)
Eye damage/irritation - Rabbit	No eye irritation, (OECD Test Guideline 405)
Respiratory/skin sensitization - Guinea pig	Did not cause sensitization on laboratory animals, (OECD Test Guideline 406)
Germ cell mutagenicity	Ames test, S. typhimurium, negative
Hamster - Ovary	Negative
DNA repair - Rat - Female	Negative
Carcinogenicity - Rat - Inhalation	Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification. Limited evidence of carcinogenicity in animal studies.
IARC	2B - Group 2B: Possibly carcinogenic to humans (carbon black)
NTP	No component of this product present at levels greater than or equal
	to0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	No component of this product present at levels greater than 0.1% is
Denoted testing to 1.9	identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Organ toxicity	Specific target organ toxicity - single exposure: No data available
Organ toxicity	Specific target organ toxicity - repeated exposure: No data available
Aspiration hazard	No data available
Additional Information	RTECS: FF5800000 To the best of our knowledge, the chemical , physical, and toxicological properties have not been throughly investigated.
Glycerol(56-81-5)	in the second se
Acute toxicity - LD50 - oral - rat	12,600 mg/kg
Acute toxicity _ED30 oral rat  Acute toxicity - inhalation	No data available
Acute toxicity - LD50 - dermal - rabbit	> 10,000 mg/kg
Skin irritation - rabbit	Mild skin irritation / 24 h
Eye irritation - rabbit	Mild eye irritation / 24 h
Respiratory or skin sensitization	No data available
Germ cell mutagenicity	No data available
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC
ACGIH	No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH



No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen or 9.0 ki so identified as a carcinogen or potential carcinogen by OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available exposure productive toxicity - repeated saysilable exposure productive toxicity - repeated exposure may cause: nausea headache, vomitting for the best of our knowledge, the chemical, physical, and toxicological properties have not been throughly investigated.  Additional information Repeated exposure may cause: nausea headache, vomitting for the best of our knowledge, the chemical, physical, and toxicological properties have not been throughly investigated.  Additional information Repeated exposure may cause: nausea headache, vomitting for the best of our knowledge, the chemical, physical, and toxicological properties have not been throughly investigated.  Additional information Repeated exposure may cause: nausea headache, vomitting for the best of our knowledge, the chemical, physical, and toxicological properties have not been throughly investigated.  Additional information Repeated Repeated Productive toxicity Repeated Productive toxicity Repeated Rep		
O.1% is identified as a known or anticipated carcinogen No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Specific target organ toxicity - repeated No data available Specific target organ toxicity - repeated No data available No data available Additional information Prolonged or repeated exposure may cause: nausea headache, vomitting Additional information I to the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Additional information Additi	NTP	No component of this product present at levels greater than or equal to
OSHA Os component of this product present at levels greater than or equal to O.1% is identified as a carcinogen or potential carcinogen by OSHA Reproductive toxicity No data available Specific target organ toxicity - repeated exposure No data available No data ava		
O.1% is identified as a carcinogen or potential carcinogen by OSHA Specific target organ toxicity - single exposure Specific target organ toxicity - repeated exposure Aspiration hazard Additional information Prolonged or repeated exposure may cause: nausea headache, vonitting Additional information Additional information To the best of our knowledge, the chemical, physical, and toxicological properties have not been throughly investigated. Additional information Additional info	OSHA	
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Specific target organ toxicity - single exposure seposure	Reproductive toxicity	
exposure  No data available exposure  Additional information Acute toxicity Acute toxi		
Specific target organ toxicity - repeated exposure Aspiration hazard Aspiration hazard Additional information Prolonged or repeated exposure may cause: nausea headache, vomitting Additional information Addi	1	NO data available
exposure Additional information Additional information Additional information To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Additional information Kidney irregularities based on human evidence  Iron Oxide(1309-37-1) Acute toxicity No data available Acute toxicity No data available Acute toxicity - dermal Skin irritation - human Skin irritation - human Skin irritation - human Moderate eye irritation Eye irritation - human Skin irritation Eye irritation - human Skin irritation Eye irritation - human Skin irritation Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Eye irritation  Equivocal tumorogenic agent by RTECS criteria. Tumors at site of application.  I ARC  Carcinogenicity based on its IARC, ACGHI, NTP or EPA classification or application.  I ARC  Group 3: not classifiable as to its carcinogenicy to humans (irritation trioxide).  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticipated carcinogen by NTP.  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA.  No data available  Aspiration hazard  Additional information  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a being pneumoconicis and does on the control of the productive siderosis. Siderosis is considered to be a being pneumoconicis and does on the control of the productive physicical inpalment. Siderosis can be observed on x-rays with the lungs having a mottled appearance, To the best of our knowledge, the chemical, p		No. data assaulation
Aspiration hazard Additional information Prolonged or repeated exposure may cause: nausea headache, vomitting Additional information To the best of our knowledge, the chemical, physicial, and toxicological poperties have not been thoroughly investigated. Additional information Kidney irregularities based on human evidence Iron Oxide(1309-37-1) Acute toxicity No data available Skin irritation - human Skin irritation Skin irritation - human Moderate eye irritation Respiratory or skin sensitization Respiratory or		NO data available
Additional information		
Additional information   To the best of our knowledge, the chemical, physical, and toxicological porporties have not been thoroughly investigated.  Additional information   Kidney irregularities based on human evidence   Iron Oxided 1309-37-1)   Acute toxicity   No data available   Acute toxicity   Acute toxicity   No data available   Skin irritation - human   Skin irritation   Respiratory or skin sensitization   No data available   Acute toxicity - rat - subcutaneous   Skin irritation   Respiratory or skin sensitization   No data available   Acricinogenicity   No data available   Acricinogenicity   Act   Act   Acricinogenicity   This product is or contains a component that is not classifiable as to its carcinogenicity   Act   Acricinogenicity   Act   Act   Acricinogenicity   Act		
Additional information   Kidney irregularities based on human evidence   Iron Oxide(1309-37-1)   Acute toxicity   Acute toxicity   No data available   Acute toxicity - dermal   No data available   Skin irritation - human   Skin irritation   Eye irritation - human   Moderate eye irritation   Moderate eye irritation   Eye irritation - human   Moderate eye irritation   Moderate eye irritation   Moderate eye irritation   Moderate eye irritation   Eye irritation - rabbit   No eye irritation   No eye irritation   Moderate variety   DNA irritation   Moderate variety   Lops   Lope   Lope		Prolonged or repeated exposure may cause: nausea headache, vomitting
Additional information   Kidney irregularities based on human evidence   Iron Oxide(1390-37-1)   Acute toxicity   No data available	Additional information	
Iron Oxide(1309-37-1) Acute toxicity		porperties have not been thoroughly investigated.
Iron Oxide(1309-37-1) Acute toxicity	Additional information	Kidney irregularities based on human evidence
Acute toxicity dermal  No data available  No data available  No data available  Skin irritation - human  Respiratory or skin sensitization  No data available  Requivocal tumorogenic agent by RTECS criteria. Tumors at site of application.  This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classifiation.  Group 3: not classifiable as to its carcinogenicity to humans (dirron trioxide).  No Component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  No data available  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impariment. Siderosis can be observed on x-rays with the lungs having a mottled appearance, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - dermal - rabbit  No data available  No data available  No data available  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels gr	Iron Oxide(1309-37-1)	· · · · · · · · · · · · · · · · · · ·
Acute toxicity - dermal Skin irritation - human Respiratory or skin sensitization Respiration hazard Additional information Respiration hazard Additional information Respiration hazard Additional information Respiratory or skin sensitisation Respiration or skin sensitisation Re		No data available
Skin irritation - human   Skin irritation		
Eye irritation - human		
Respiratory or skin sensitization Germ cell mutagenicity Carcinogenicity - rat - subcutaneous Equivocal tumorogenic agent by RTECS criteria. Tumors at site of application.  This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.  IARC Group 3: not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification trioxide).  NTP No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticipated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as ca carcinogen or potential carcinogen by OSHA.  Reproductive toxicity No data available Resposure Application hazard Additional information Additional inf		
Serm cell mutagenicity		
Equivocal tumorogenic agent by RTECS criteria. Tumors at site of application.   Carcinogenicity		
application.  Carcinogenicity  Carcinogenicity  This product is or contains a component that is not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.  Group 3: not classifiable as to its carcinogenicity to humans (diliron trioxide).  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.  Reproductive toxicity  Specific target organ toxicity - repeated exposure  Aspiration hazard  Additional information  No data available  Itanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - oral - rabbit  No data available  No results available  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No data available		
This product is or contains a component that is not classifiable as to its carcinogenicity  IARC  Group 3: not classifiable as to its carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  No data available  Reproductive toxicity  Specific target organ toxicity - repeated exposure  Aspiration hazard  Additional information  No data available  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - dermal - rabbit  No data available  No results available	Carcinogenicity - rat - subcutaneous	
carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.  IARC Group 3: not classifiable as to its carcinogenicity to humans (dirron trioxide).  NTP No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a ca carcinogen or potential carcinogen by OSHA.  Reproductive toxicity No data available Specific target organ toxicity - repeated exposure No data available Specific target organ toxicity - repeated exposure No data available Additional information  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7) Acute toxicity - Inblation No data available No results available No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen py CSHA No data available No data available		
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IARC    Group 3: not classifiable as to its carcinogeniciy to humans (diiron trioxide).   NTP		carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.
trioxide).  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as ca carcinogen or potential carcinogen by OSHA.  Reproductive toxicity  Specific target organ toxicity - single exposure  Specific target organ toxicity - repeated exposure  Aspiration hazard  Additional information  Additional information  No data available  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - IbD50 - oral - rat  Acute toxicity - IbD50 - dermal - rabbit  Skin irritation - human  Eye irritation - rabbit  No data available  No eye irritation  No eye irritation  Will not occur  Will not occur  No results available  DNA inhibition  No results available  No results available  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  No data available  No data available	IARC	Group 3: not classifiable as to its carcinogeniciy to humans (diiron
No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated acrinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as a kown or anticpated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as ca carcinogen or potential carcinogen by OSHA.  No data available  Specific target organ toxicity - single exposure  Specific target organ toxicity - repeated exposure  Aspiration hazard  No data available  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - oral - rat  Acute toxicity - inhalation  No data available  No data available  No data available  No data available  No eve irritation - human  Mild skin irritation - 3 h  No eye irritation or skin sensitisation  Germ cell mutagenicity - hamster - ovary - micronucleus test  IARC  No results available  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available		
O.1% is identified as a kown or anticpated carcinogen by NTP.  No component of this product present at levels greater than or equal to 0.1% is identified as ca carcinogen or potential carcinogen by OSHA.  Reproductive toxicity  Reproductive toxicity  Specific target organ toxicity - single exposure  Specific target organ toxicity - repeated exposure  Aspiration hazard  Additional information  No data available  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance, To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - dermal - rabbit  Skin irritation - human  Mild skin irritation - 3 h  Eye irritation - rabbit  Respiration or skin sensitisation  Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen No camponent of this product present at levels greater than or equal to 0.1% is identified as a acacinogen or potential carcinogen by OSHA No data available	NTP	
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O.1% is identified as ca carcinogen or potential carcinogen by OSHA.   Reproductive toxicity	OCHA	No component of this product present at levels greater than or equal to
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Specific target organ toxicity - single exposure	Book of the Control o	
Specific target organ toxicity - repeated exposure   No data available		
Specific target organ toxicity - repeated exposure		inhalation - may cause respiratory irritation.
Aspiration hazard Additional information  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - dermal - rabbit  Skin irritation - human  Mild skin irritation - 3 h  Eye irritation - rabbit  No eye irritation  Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - homse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
Aspiration hazard Additional information  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat		No data available
Additional information  Long term inhalation exposure to iron (oxide fume or dust) can cause siderosis. Siderosis is considered to be a benign pneumoconiosis and does not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat		
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not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat	Additional information	Long term inhalation exposure to iron (oxide fume or dust) can cause
not normally cause significant physiological impairment. Siderosis can be observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat		siderosis. Siderosis is considered to be a benign pneumoconiosis and does
observed on x-rays with the lungs having a mottled appearance., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat		
best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat		
Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat  Acute toxicity - LD50 - dermal - rabbit  Acute toxicity - LD50 - dermal - rabbit  Acute toxicity - LD50 - dermal - rabbit  Skin irritation - human  Eye irritation - rabbit  Respiration or skin sensitisation  Respiration or skin sensitisation  Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - lungs  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
Titanium Dioxide(13463-67-7)  Acute toxicity - LD50 - oral - rat		
Acute toxicity - LD50 - oral - rat  Acute toxicity - inhalation  Acute toxicity - LD50 - dermal - rabbit  Skin irritation - human  Eye irritation - rabbit  Respiration or skin sensitisation  Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No data available  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available  No data available  No data available	Titanium Dioxide(13463-67-7)	
Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - rabbit Respiration or skin sensitisation Germ cell mutagenicity - hamster - ovary - micronucleus test Germ cell mutagenicity - hamster - ovary - sister chromatid exchange Germ cell mutagenicity - mouse - micronucleus test  IARC No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by OSHA Reproductive toxicity  Rod data available  > 10000 mg/kg  > 10000 mg/kg  Nill okin irritation - 3 h  No eye irritation No expuritation  Will not occur  No results available  Will not occur  No results available  DNA inhibition No results available  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity No data available  No data available		> 10000 mg/kg
Acute toxicity - LD50 - dermal - rabbit  Skin irritation - human  Eye irritation - rabbit  Respiration or skin sensitisation  Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  Reproductive toxicity  No data available  No data available  No data available  No data available		
Skin irritation - human  Eye irritation - rabbit  Respiration or skin sensitisation  Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - lungs  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No results available  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  Reproductive toxicity  No data available  No data available  No data available		
Eye irritation - rabbit Respiration or skin sensitisation Will not occur  Germ cell mutagenicity - hamster - ovary - micronucleus test Germ cell mutagenicity - hamster - lungs Germ cell mutagenicity - hamster - ovary - sister chromatid exchange Germ cell mutagenicity - mouse - micronucleus test  IARC No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen OSHA No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA Reproductive toxicity No data available No data available		
Respiration or skin sensitisation Germ cell mutagenicity - hamster - ovary - micronucleus test Germ cell mutagenicity - hamster - lungs Germ cell mutagenicity - hamster - lungs Germ cell mutagenicity - hamster - ovary - sister chromatid exchange Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
Germ cell mutagenicity - hamster - ovary - micronucleus test  Germ cell mutagenicity - hamster - lungs  Germ cell mutagenicity - hamster - lungs  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
micronucleus test  Germ cell mutagenicity - hamster - lungs  Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
Germ cell mutagenicity - hamster - lungs Germ cell mutagenicity - hamster - ovary - sister chromatid exchange Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		No results available
Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
Germ cell mutagenicity - hamster - ovary - sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available	Germ cell mutagenicity - hamster - lungs	DNA inhibition
Sister chromatid exchange  Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
Germ cell mutagenicity - mouse - micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  No data available		
micronucleus test  IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available		No results available
IARC  No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available		
O.1% is identified as a probable, possible or confirmed human carcinogen by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available		No component of this product present at levels greater than or equal to
by IARC  NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available		
NTP  No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available		
O.1% is identified as a known or anticipated carcinogen  OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available	NTD	
OSHA  No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity  No data available  Specific target organ toxicity - single  No data available	INIF	
0.1% is identified as a carcinogen or potential carcinogen by OSHA  Reproductive toxicity No data available  Specific target organ toxicity - single No data available	OCHA	
Reproductive toxicityNo data availableSpecific target organ toxicity - singleNo data available	USHA	
Specific target organ toxicity - single No data available		
exposure		No data available
	exposure	



Specific target organ toxicity - repeated	No data available
exposure	
Aspiration hazard	No data available
Additional information	To the best of our knowledge, the chemical, physical, and toxicological
	properties have not been thoroughly investigated

## 12. ECOLOGICAL INFORMATION

Amorphous Silica(112926-00-8)	
Toxicity	no data available
Persistence and degradability	no data available
Bioaccumulative potential	no data available
Mobility in soil	no data available
PBT and vPvB	not available/not required
Barium Sulfate(7727-43-7)	
Toxicity	No data available
Persistence and degradability	The methods for determining biodegradability are not applicable in
	inorganic substances
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB	not available/not required
Bisphenol A(80-05-7)	
Toxicity to fish -flow-through test - LC50 - fathead minnow	4.6 mg/L / 96 h
Toxicity to daphnia and other aquatic invertebrates - static test EC50 - water flea	10.2 mg/L / 48 h
Toxicity to algae - static test EC50 - green	2.73 - 3.1 mg/L / 96 h
algae	
Persistence and degradability -	89% readily biodegradable - 28 d
biodegradability - aerobic	a same same same same same same same sam
Bioaccumulative potential -	0.015 mg/L / 42 d
bioaccumulation - carp	
Mobility in soil	No data available
PBT and vPvB	Not available/not required
Other adverse effects	An environmental hazard cannot be excluded in the endet of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Carbon Black (1222 06 4)	
Carbon Black(1333-86-4)	,
Toxicity to fish LC50	Danio rerio (zebra fish) >1000 mg/l - 96 h
	Danio rerio (zebra fish) >1000 mg/l - 96 h  Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)
Toxicity to fish LC50 EC50 Toxicity to daphnia and other aquatic	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  Mobility in soil  PBT and vPvB	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required  No data available  Not available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  No data available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  No data available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  No data available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  No data available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Titanium Dioxide(13463-67-7)	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  No data available/not required  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Titanium Dioxide(13463-67-7)  Toxicity to fish - LC50 - other fish	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  Not available/not required  No data available  No data available
Toxicity to fish LC50  EC50 Toxicity to daphnia and other aquatic invertebrates  EC50 Toxicity to algae  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB assessment  Glycerol(56-81-5)  Toxicity  Persistence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Iron Oxide(1309-37-1)  Toxicity  Persisitence and degradability  Bioaccumulative potential  Mobility in soil  PBT and vPvB  Other adverse effects  Titanium Dioxide(13463-67-7)	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)  Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)  No data available  No data available  No data available  No data available/not required  No data available



Toxicity to daphnia and other aquatic invertebrates - EC0 - Daphnia magna (water flea)	1000 mg/L / 48 h
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPbV	Not available/not required
Other adverse effects	No data available

### 13. DISPOSAL CONSIDERATIONS

#### **WASTE TREATMENT METHODS**

**GENERAL INFORMATION:** No data available.

**DISPOSAL METHOD:** Dispose of in accordance with Local, State, Regional, National and International Regulations.

Ecology - waste materials: Avoid release to the environment.

### 14. TRANSPORT INFORMATION

### \*CHECK WITH YOUR CARRIER FOR ADDITIONAL RESTRICTIONS THAT MAY APPLY.

**USDOT GROUND** 

**DOT (DEPARTMENT OF TRANSPORTATION)** 

PROPER SHIPPING NAME (DOT): Not Regulated/Not Applicable

**HAZARDS CLASS:** None

UN/NA NUMBER: Not Applicable

**PACKING GROUP:** None

EMERGENCY RESPONSE GUIDE (ERG): Not Applicable

**DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)** 

**PROPER SHIPPING NAME:** Not Regulated/Not Applicable

**HAZARDS CLASS:** Not Applicable UN/NA NUMBER: Not Applicable **PACKING GROUP:** Not Applicable

EMERGENCY RESPONSE GUIDE (ERG): Not Applicable

IMDG (OCEAN)

PROPER SHIPPING NAME: Not Regulated, Not Applicable

**HAZARDS CLASS:** Not Applicable UN/NA NUMBER: Not Applicable PACKING GROUP: Not Applicable

EMERGENCY RESPONSE GUIDE (ERG): Not Applicable

**MARINE POLLUTANT:** No

SPECIAL PRECAUTIONS: P235 Keep cool.



# **SAFETY DATA SHEET**

ISSUED: 8/22/2018 REFERENCE: GR533-E305

### 15. REGULATORY INFORMATION

US FEDERAL REGULATIONS
All ingredients are TSCA (Toxic Substance Control Act) listed.

OSHA HAZARDS: Moderate skin irritant, Moderate eye irritant.

**EPCRA - Emergency** 

CERCLA REPORTABLE QUANTITY

**SARA 304 Extremely Hazardous Substances Reportable Quantity:** This material does not contain any components with a section 304 EHS RQ.

## SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

SARA 311/312 Hazards: Acute Health Hazard, Chronic Health Hazard

This product contains:	Chemical CAS#	
Titanium Dioxide	13463-67-7	
Bisphenol A	80-05-7	
Carbon Black	1333-86-4	

SARA 313: No SARA 313 chemicals are present

## **CLEAN AIR ACT:**

### **INTERNATIONAL REGULATIONS**

## CLASSIFICATION ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP):

Carc. 2 H351 Suspected of causing cancer

STOT RE 1 H372 Causes damage to organs through prolonged or repeated exposure

### **NATIONAL REGULATIONS**

This product contains:	Chemical CAS#
~Titanium Dioxide	13463-67-7
~Carbon Black	1333-86-4

### National Regulations Key

~ Indicates a chemical listed by IARC as a possible carcinogen.

^ Indicates a chemical listed by IARC as carcinogenic to humans.



#### STATE REGULATIONS **CALIFORNIA PROPOSITION 65**

This product contains:	Chemical CAS#
*Titanium Dioxide	13463-67-7
#Bisphenol A	80-05-7
*Carbon Black	1333-86-4
*2-Methylimdazole	693-98-1

## **Proposition 65 Key**

WARNING: This product can expose you to a chemical(s), including those listed above, which is (are) known to the State of California to cause cancer.

For more information visit WWWPROP65.CA.GOV.

WARNING: This product can expose you to a chemical(s), including those listed above, which is (are) known to the State of California to cause birth defects or other reproductive harm.

For more information visit <u>WWWPROP65.CA.GOV</u>.

WARNING: This product can expose you to a chemical(s), including those listed above, which is (are) known to the State of California to cause cancer and birth defects or other reproductive harm.

For more information visit WWWPROP65.CA.GOV.

### **Massachusetts Right to Know**

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
Barium Sulfate	7727-43-7
Bisphenol A	80-05-7
Amorphous Silica	112926-00-8
Carbon Black	1333-86-4
Iron Oxide	1309-37-1
Glycerol	56-81-5

## Pennsylvania Right to Know

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
Barium Sulfate	7727-43-7
Bisphenol A	80-05-7
Amorphous Silica	112926-00-8
Carbon Black	1333-86-4
Iron Oxide	1309-37-1
2-Methylimdazole	693-98-1
Glycerol	56-81-5



### **New Jersey Right to Know**

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
Barium Sulfate	7727-43-7
Bisphenol A	80-05-7
Amorphous Silica	112926-00-8
Carbon Black	1333-86-4
Iron Oxide	1309-37-1
2-Methylimdazole	693-98-1
Glycerol	56-81-5



# ARDINAL SAFETY DATA SHEET

**ISSUED:** 8/22/2018 **REFERENCE:** GR533-E305

### **16. OTHER INFORMATION**

## **Other Product Information:**

% Volatile by Volume : 0.00 % Volatile by Weight : 0.00 % Solids by volume : 100.00 % Solids by Weight : 100.00

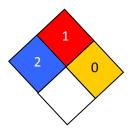
## **VOC CONTENT:**

Content tested per EPA METHOD 24, ASTM D2369 is less than 1% Wt/Wt.

### **HMIS RATING**

Health :	2
Flammability :	1
Reactivity:	0
Personal Protection :	Е

## NFPA CODES



**MANUFACTURER DISCLAIMER:** The information contained in this Safety Data Sheet is considered to be true and accurate. Cardinal Paint and Powder makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. This data is offered solely for the user's consideration, investigation and verification.