

ARDINAL SAFETY DATA SHEET

ISSUED: 8/7/2018 **REFERENCE:** BR358-C209

C209-BR358 RAL 8028 BROWN

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: C209-BR358 RAL 8028 BROWN **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

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

2. HAZARDS IDENTIFICATION

PICTOGRAMS:



SIGNAL WORD: WARNING

HAZARD STATEMENTS:

H317 May cause an allergic skin reaction.

H351 Suspected of causing cancer.

H372 Causes damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS:

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

P201 Obtain special instructions before use.

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

P260 Do not breathe dust.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number
Titanium Dioxide	1% - 5%	13463-67-7
Carbon Black	0.10% - 0.50%	1333-86-4
Aluminum Oxide	1% - 5%	1344-28-1
Diethanolamine	0.10% - 0.50%	111-42-2

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.



SAFETY DATA SHEET

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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.

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

Aluminum Oxide(1344-28-1)		
USA ACGIH	(TLV) TWA	1 mg/m3
USA OSHA	(OEL) Table Z-1, TWA	15 mg/m3
Carbon Black(1333-86-4)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	3 mg/m3 8 hours
NIOSH REL (Recommended Exposure Limit)	TWA (Time Weighted Average)	0.1mg of PAHs/cm3 10 hours
NIOSH REL (Recommended Exposure Limit)	TWA (Time Weighted Average)	3.5 mg/m3 8 hours
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	3.5 mg/m3 8 hours
Diethanolamine(111-42-2)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	1.0 mg/m3 8 hours
NIOSH REL (Recommended Exposure Limit)	TWA (Time Weighted Average)	15 mg/m3 8 hours
NIOSH REL (Recommended Exposure Limit)	TWA (Time Weighted Average)	3 ppm 8 hours
Iron Oxide(1309-37-1)		
USA ACGIH	USA ACGIG (TLV) TWA	5 mg/m3
USA NIOSH	USA NIOSH (REL) TWA	5 mg/m3
USA OSHA	USA OSHA (OEL) TWA Table Z-1	15 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 ³
Upper explosion limit	:	70 g/m ³
Density	:	1.5986
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

Aluminum Oxide(1344-28-1)	
Acute oral toxicity - LD50 - rat	> 5000 mg/kg
Acute toxicity - LD30 - Tat Acute toxicity - dermal	No data available
Acute toxicity - LC50 - inhalation - rat	> 2.6 mg/L / 4 h
Acute toxicity - LD50 - oral - rat	> 10,000 mg/kg
Additional information	Cough, chest pain, difficulty in breathing, gastrointestinal disturbance
Addittional information	Liver irregularities based on human evidence
Aspiration hazard	No data available
Carcinogenicity	This product is or contains a component that is not classifiable as to its carcinogenicty based on its IARC, ACGIH, NTP, or EPA classification
Eye irritation - rabbit	No eye irritation
Eye irritation - rabbit	Not irritating
Genotoxicity - in vitro - Ames test - Salmonella typhimurium	Negative
Germ cell mutagenicity	No data available
Human experience	If the recommended workplace concentration of the product is exceeded the respiratory tract may be mechanically overcharged as with other fine dusts.
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 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
Repeated dose toxicity - inhalation - rat and hamster	Sediment in the lungs / no evidence of fibrosis, no pathological changes / 2 years
Reproductive toxicity	No data available
Respiratory or skin sensitisation - maximisation test - guinea pig	DId not cause sensitisation on laboratory animals
Sensitization - Draize-test - guinea pig	Not sensitizing
Skin irritation - rabbit	No skin irritation
Skin irritation - rabbit	Not irritating
Specific target organ toxicity - repeated exposure	No data available
Specific target organ toxicity - single exposure	No data available
Amorphous Silica(112926-00-8)	
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
Acute toxicity	no data available
Acute toxicity: Dermal	no data available
Acute toxicity: Inhalation	no data available
Additional information	Amorphous silica is not classified as to its carcinogenicity to humans, however, crystalline silica inhaled in the form of quartz or cristobalite from occupational sources is carcinogenic to humans (Group 1, IARC). Therefore, amorphous silica should be handled as if possessing the same hazards as the crystalline form. 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
Aspiration hazard	no data available
Carcinogenicity: IARC: Group 3:	not classifiable as to its carcinogenicity to humans
Eye irritation	no data available
Germ cell mutagenicity	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 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
Reproductive toxicity	no data available
Respiratory or skin sensation	no data available
Skin irritation	no data available
Specific target organ toxicity - repeated exposure	no data available



Specific target organ toxicity - single	no data available
exposure	
Barium Sulfate(7727-43-7)	·
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
Acute toxicity - Dermal	No data available
Acute toxicity - inhalation	No data available
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	Stomach irregularities - based on human evidence
Aspiration hazard	No data available
Carcinogenicity - rat - intrapleural -	Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or
tumorigenic	Respiration: Tumors
Eye irritation	No data available
Germ cell mutagenicity - mouse -	No reported data
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
NITO	by IARC
NTP	No component of this product present at levels greater than or equal to
OCUA	0.1% is identified as a known or anticipated carcinogen by NTP
OSHA	No component of this product present at levels greater than or equal to
Book to the control of	0.1% is identified as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Respiratory or skin sensation	No data available
Skin irritation	No data available
Specific target organ toxicity - repeated	No data available
exposure	No data available
Specific target organ toxicity - single	No data available
exposure	
Carbon Black(1333-86-4)	No data available
Aspiration hazard	No data available
Carbon Black(1333-86-4) Aspiration hazard Carcinogenicity - Rat - Inhalation	Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or
Aspiration hazard	Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors. This product is or contains a component that has
Aspiration hazard	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,
Aspiration hazard 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.
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female	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. Negative
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit	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. Negative No eye irritation, (OECD Test Guideline 405)
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black)
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401)
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available Specific target organ toxicity - single exposure: No data available
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available No component of this product present at levels greater than 0.1% is
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Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Osha Reproductive toxicity Respiratory/skin sensitization - Guinea pig	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available Specific target organ toxicity - single exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2)	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available Specific target organ toxicity - single exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404)
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404)
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2)	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal too.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available Specific target organ toxicity - single exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed adverse effect level - 25 mg/kg RTECS: KL297500
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available Specific target organ toxicity - single exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed adverse effect level - 25 mg/kg RTECS: KL297500 To the best of our knowledge, the chemical, physical, and toxicological
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information Additional information	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal too.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed adverse effect level - 25 mg/kg RTECS: KL297500 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information Additional information Additional information	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal too.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed adverse effect level - 25 mg/kg RTECS: KL297500 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated No data available
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information Additional information Additional information Aspiration hazard Carcinogenicity - IARC	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal too.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available Specific target organ toxicity - single exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed adverse effect level - 25 mg/kg RTECS: KL297500 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated No data available 2B - Group 2B Possibly carcinogenic to humans
Aspiration hazard Carcinogenicity - Rat - Inhalation DNA repair - Rat - Female Eye damage/irritation - Rabbit Germ cell mutagenicity Hamster - Ovary IARC LD50 Dermal - Rabbit LD50 Inhalation - Rat LD50 Oral - Rat NTP Organ toxicity Organ toxicity Organ toxicity OSHA Reproductive toxicity Respiratory/skin sensitization - Guinea pig Skin corrosion/irritation Diethanolamine(111-42-2) Additional information Additional information Additional information	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. Negative No eye irritation, (OECD Test Guideline 405) Ames test, S. typhimurium, negative Negative 2B - Group 2B: Possibly carcinogenic to humans (carbon black) > 3,000 mg/kg No data available > 8,000 mg/kg, male and female, (OECD Test Guideline 401) No component of this product present at levels greater than or equal too.1% is identified as a known or anticipated carcinogen by NTP Specific target organ toxicity - repeated exposure: No data available No component of this product present at levels greater than 0.1% is identified as a carcinogen or potential carcinogen by OSHA No data available Did not cause sensitization on laboratory animals, (OECD Test Guideline 406) No skin irritation - 24 h, (OECD Test Guideline 404) Liver - Irregularities - Based on Human Evidence Repeated dose toxicity - rat - male and female - oral Lowest observed adverse effect level - 25 mg/kg RTECS: KL297500 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated No data available



Carcinogenicity - 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
Germ cell mutagenicity	Micronucleus test lymphocyte - Result Negative
LD50 Dermal - Rabbit	12,200 mg/kg
LD50 Intraperitoneal - Rat	120 mg/kg
LD50 Intravenous - Rat	778 mg/kg
LD50 Oral - Rat - male and female	1,600 mg/kg (OECD Test Guideline 401)
Mutagenicity (micronucleus test) Mouse	Result: Negative
male and female	
Reproductive toxicity	No data available
Respiratory or skin sensitization	Guinea pig - Did not cause sensitization on laboratory animals
Serious eye damage/eye irritation	Rabbit - Risk of serious damage to eyes (OECD Test Guideline 405)
Skin Corrosion/irritation	No data available
Specific target organ toxicity - repeated	No data available
exposure	TVO data available
Specific target organ toxicity - single	No data available
exposure	No data available
Iron Oxide(1309-37-1)	I No. 1 at a second sec
Acute toxicity	No data available
Acute toxicity - dermal	`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.
Aspiration hazard	No data available
Carcinogenicity	This product is or contains a component that is not classifiable as to its
caremogernary	carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.
Carcinogenicity - rat - subcutaneous	Equivocal tumorogenic agent by RTECS criteria. Tumors at site of
Carcinogenicity - rat - subcutaneous	application.
Fire instantion because	
Eye irritation - human	Moderate eye irritation
Germ cell mutagenicity	No data available
IARC	Group 3: not classifiable as to its carcinogeniciy to humans (diiron
	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 ca carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available
Respiratory or skin sensitization	No data available
Skin irritation - human	Skin irritation
Specific target organ toxicity - repeated	No data available
1 ,	NO data available
exposure	inhalation may cause recrimters imitation
Specific target organ toxicity - single	inhalation - may cause respiratory irritation.
exposure	
Titanium Dioxide(13463-67-7)	
Acute toxicity - inhalation	No data available
Acute toxicity - LD50 - dermal - rabbit	> 10000 mg/kg
Acute toxicity - LD50 - oral - rat	> 10000 mg/kg
Additional information	To the best of our knowledge, the chemical, physical, and toxicological
	properties have not been thoroughly investigated
Aspiration hazard	No data available
Eye irritation - rabbit	No eye irritation
Germ cell mutagenicity - hamster - lungs	DNA inhibition
Germ cell mutagenicity - hamster - ovary -	No results available
micronucleus test	No very the every teleter
Germ cell mutagenicity - hamster - ovary -	No results available
sister chromatid exchange	
Germ cell mutagenicity - mouse -	No results 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
Respiration or skin sensitisation	Will not occur
Skin irritation - human	Mild skin irritation - 3 h
Specific target organ toxicity - repeated	No data available
exposure	
Specific target organ toxicity - single	No data available
exposure	

12. ECOLOGICAL INFORMATION

Aluminum Ovido/1244 20 1)	
Aluminum Oxide(1344-28-1) Bioaccumulative potential	Does not bioaccumulate
Mobility in soil	No data available
Other adverse effects	No data available.
PBT and vPvB	Not available/not required
Persisitence and degradability	The methods for determining biodegradability are not applicable to
r craintenee and degradability	inorganic substances
Toxicity	No toxicity at the limit of solubility
Toxicity to algae - EC50 - selenastrum	> 100 mg/L / 72 h
capricornutum	
Toxicity to daphnia - EC50 - daphnia	> 100 mg/L / 48 h
magna	
Toxicity to fish - LC50 - Salmo trutta	> 100 mg/L / 96 h
Amorphous Silica(112926-00-8)	
Bioaccumulative potential	no data available
Mobility in soil	no data available
PBT and vPvB	not available/not required
Persistence and degradability	no data available
Toxicity	no data available
Barium Sulfate(7727-43-7)	
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB	not available/not required
Persistence and degradability	The methods for determining biodegradability are not applicable in
	inorganic substances
Toxicity	No data available
Carbon Black(1333-86-4)	No data available
Bioaccumulative potential	No data available
EC50 Toxicity to algae	Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test
	Guideline 201)
EC50 Toxicity to daphnia and other aquatic	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline
invertebrates	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)
invertebrates Mobility in soil	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available
invertebrates Mobility in soil PBT and vPvB assessment	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available
invertebrates Mobility in soil PBT and vPvB assessment	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2)	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available No data available
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects Persistence and degradability Results of PBT and vPvB assessment	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects Persistence and degradability Results of PBT and vPvB assessment Toxicity to daphnia and other aquatic	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects Persistence and degradability Results of PBT and vPvB assessment Toxicity to daphnia and other aquatic invertebrates	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted static test EC50 - Daphnia magna (Water Flea) - 30.1 mg/l - 48h
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects Persistence and degradability Results of PBT and vPvB assessment Toxicity to daphnia and other aquatic invertebrates Toxicity to fish	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects Persistence and degradability Results of PBT and vPvB assessment Toxicity to daphnia and other aquatic invertebrates Toxicity to fish Iron Oxide(1309-37-1)	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted static test EC50 - Daphnia magna (Water Flea) - 30.1 mg/l - 48h LC50 - Pimephales promelas (fathead minnow) - 1,460 mg/l - 96h
invertebrates Mobility in soil PBT and vPvB assessment Persistence and degradability Toxicity to fish LC50 Diethanolamine(111-42-2) Bioaccumulative potential Mobility in Soil Other adverse effects Persistence and degradability Results of PBT and vPvB assessment Toxicity to daphnia and other aquatic invertebrates Toxicity to fish Iron Oxide(1309-37-1) Bioaccumulative potential	Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202) No data available Not available/not required No data available Danio rerio (zebra fish) >1000 mg/l - 96 h No data available No data available No data available An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Harmful to aquatic life with long lastting effects Biodegradability - aerobic - Exposure time 28d - Result: 93% Readily biodegradable (OECD Test Guideline 301F) PBT/vPvB assessment not available as chemical safety assessment not required/not conducted static test EC50 - Daphnia magna (Water Flea) - 30.1 mg/l - 48h LC50 - Pimephales promelas (fathead minnow) - 1,460 mg/l - 96h
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Persisitence and degradability	No data available
Toxicity	No data available
Titanium Dioxide(13463-67-7)	
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available
PBT and vPbV	Not available/not required
Persistence and degradability	No data available
Toxicity to daphnia and other aquatic	1000 mg/L / 48 h
invertebrates - EC0 - Daphnia magna	
(water flea)	
Toxicity to daphnia and other aquatic	> 1000 mg/L / 48 h
invertebrates - EC50 - Dapphnia magna	
(water flea)	
Toxicity to fish - LC50 - other fish	> 1000 mg/L / 96 h

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

IATA (AIR)

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: 8/7/2018 **REFERENCE:** BR358-C209

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
Carbon Black	1333-86-4
Aluminum Oxide	1344-28-1
Diethanolamine	111-42-2

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
~Diethanolamine	111-42-2

National Regulations Key

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

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



RDINAL SAFETY DATA SHEET

ISSUED: 8/7/2018 **REFERENCE:** BR358-C209

STATE REGULATIONS CALIFORNIA PROPOSITION 65

This product contains:	Chemical CAS#
*Titanium Dioxide	13463-67-7
*Carbon Black	1333-86-4
*Diethanolamine	111-42-2

Proposition 65 Key

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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.

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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 <u>WWWPROP65.CA.GOV</u>.

Massachusetts Right to Know

This product contains	Chemical CAS#
Barium Sulfate	7727-43-7
Titanium Dioxide	13463-67-7
Iron Oxide	1309-37-1
Carbon Black	1333-86-4
Amorphous Silica	112926-00-8
Aluminum Oxide	1344-28-1
Diethanolamine	111-42-2

Pennsylvania Right to Know

This product contains	Chemical CAS#
Barium Sulfate	7727-43-7
Titanium Dioxide	13463-67-7
Iron Oxide	1309-37-1
Carbon Black	1333-86-4
Amorphous Silica	112926-00-8
Aluminum Oxide	1344-28-1
Diethanolamine	111-42-2

New Jersey Right to Know

This product contains	Chemical CAS#	
Barium Sulfate	7727-43-7	
Titanium Dioxide	13463-67-7	
Iron Oxide	1309-37-1	
Carbon Black	1333-86-4	
Amorphous Silica	112926-00-8	
Aluminum Oxide	1344-28-1	
Diethanolamine	111-42-2	



RDINAL SAFETY DATA SHEET

ISSUED: 8/7/2018 **REFERENCE:** BR358-C209

16. OTHER INFORMATION

Other Product Information:

% Volatile by Volume: 0.03 % Volatile by Weight: 0.02 % Solids by volume: 99.97 % Solids by Weight: 99.98

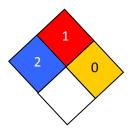
VOC CONTENT:

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



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