

T241-GR851 RAL 7035 LT GRAY

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME:	T241-GR851 RAL 7035 LT GRAY
PRODUCT USE:	Industrial Powder Coating

MANUFACTURER

Cardinal Paint and Powder 1329 Potrero Ave S. El Monte, CA, 91733 626 444-9274

24 HR. EMERGENCY TELEPHONE NUMBER

CHEMTREC (US Transportation): (800)424-9300 CHEMTREC (International Transportation): (202)483-7616 WEB: WWW.CARDINALPAINT.COM

2. HAZARDS IDENTIFICATION

PICTOGRAMS:



SIGNAL WORD : DANGER

HAZARD STATEMENTS :

- H412 Harmful to aquatic life with long lasting effects.
- H340 May cause genetic defects.
- H351 Suspected of causing cancer.
- H317 May cause an allergic skin reaction.
- H372 Causes damage to organs through prolonged or repeated exposure.
- H318 Causes serious eye damage.

PRECAUTIONARY STATEMENTS:

- P201 Obtain special instructions before use.
- P260 Do not breathe dust.
- P280 Wear protective gloves/protective clothing/eye protection/face protection.
- P202 Do not handle until all safety precautions have been read and understood.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
Titanium Dioxide	15% - 20%	13463-67-7	
1,3,5-Triglycidyl Isocyanurate	1% - 5%	2451-62-9	
Hydrated magnesium silicate	1% - 5%	14807-96-6	
Aluminum Oxide	<1%	1344-28-1	



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.

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

INHALATION : Allow Victim to breathe fresh air. Allow victim to rest. Remove victim to fresh air and keep at rest in a position comfortable for breathing. 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

1,3,5-Triglycidyl Isocyanurate(2451-62-9)				
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	0.05 mg/m3 8 hours		
Aluminum Oxide(1344-28-1)				
USA OSHA	(OEL) Table Z-1, TWA	15 mg/m3		
USA ACGIH	(TLV) TWA	1 mg/m3		
Amorphous Pyrogenic Silica(112945-52-				
USA OSHA	USA OSHA TWA (OEL Table Z-3)	80 mg/m3 3/%SiO2		
USA NIOSH	USA NIOSH TWA (REL)	6 mg/m3		
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)				
Crystalline Silica(14808-60-7)				
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	0.025 mg/m3 8 hours		
Hydrated magnesium silicate(14807-96-				
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	2 mg/m3 (Respirable Fraction) 8 hours		
NIOSH REL(Recommended Exposure	TWA (Time Weighted Average)	2 mg/m3 (Respirable Fraction) 10		
Limit)		hours		
Limestone(1317-65-3)				
ACGIH	Not Applicable	Not Applicable		
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	15 mg/m3 (Total Dust) 8 hours		
OSHA PEL (Permissible Exposure Limit	TWA (Time Weighted Average)	5 mg/m3 (Respirable Fraction) 8		
		hours		
NIOSH REL (Recommende Exposure	TWA (Time Weighted Average)	15 mg/m3 (Total Dust) 8 hour		
LImit)				
NIOSH REL (Recommende Exposure	TWA (Time Weighted Average)	5 mg/m3 (Respirable Fraction) 8		
LImit)		hours		
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	:	1.7039
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 : Avoid contact with strong oxidizing agents.

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

11. TOXICOLOGICAL INFORMATION

1,3,5-Triglycidyl Isocyanurate(2451-62-9)	
Acute toxicity - LD50 - oral - rat	100 - 200 mg/kg
Acute toxicity - LC50 - inhalation - rat -	> 650 mg/m3
male - 4 h	
Acute toxicity - LD50 - Dermal - rat- male	> 2000 mg/kg
& female	
Skin irritation - rabbit	Mild skin irritation - 24 hours
Eye irritation - rabbit	Severe eye irritation
Respiratory or skin sensation -	May cause sensitization by skin contact
Maximization test - guinea pig	
Germ cell mutagenicity	In vivo tests showed mutagenic effects
Germ cell mutagenicity - AMES test - S.	Positive
typhimurium	
Germ cell mutagenicity - AMES test -	Positive
mouse - male	
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
NTD	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
OSHA	0.1% is identified as a known or anticipated carcinogen by NTP No component of this product present at levels greater than or equal to
USHA	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
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
Aluminum Oxide(1344-28-1)	
Acute toxicity - LD50 - oral - rat	> 10,000 mg/kg
Acute toxicity - LC50 - inhalation - rat	> 2.6 mg/L / 4 h
Acute toxicity - dermal	No data available
Skin irritation - rabbit	No skin irritation
Eye irritation - rabbit	No eye irritation

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Respiratory or skin sensitisation - maximisation test - guinea pig	DId not cause sensitisation on laboratory animals
Germ cell mutagenicity	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
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
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional information	Cough, chest pain, difficulty in breathing, gastrointestinal disturbance
Addittional information	Liver irregularities based on human evidence
Amorphous Pyrogenic Silica(112945-52-5)	
Acute toxicity - Inhalation	No data available
Acute toxicity - Dermal	No data available
Skin irritation Respiratory or skin sensation	No data available
Germ cell mutagenicity - rat - lungs	No data available Body fluid assay
Germ cell mutagenicity - rat Carcinogenicity - Rat - Inhalation	Unscheduled DNA synthesis Tumorigenic: Carcinogenic by RTECS criteria. Lungs, thorax, or
	respiration: tumors
IARC	Not classifiable as to its carcinogenicity to human
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 as known or anticipated carcinogen
OSHA	No component of this product present at levels greater than or equal to 0.1% is identifed as a carcinogen or potential carcinogen by OSHA
Reproductive toxicity	No data available
Specific target organ toxicity - single exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional information	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
Amorphous Silica(112926-00-8)	
Acute toxicity	no data available
Acute toxicity: Inhalation	no data available
Acute toxicity: Dermal	no data available
Skin irritation	no data available
Eye irritation	no data available no data available
Respiratory or skin sensation Germ cell mutagenicity	no data available
Carcinogenicity: IARC: Group 3:	not classifiable as to its carcinogenicity to humans
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 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
Specific target organ toxicity - single exposure	no data available
Specific target organ toxicity - repeated	no data available
exposure	

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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
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 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.
Crystalline Silica(14808-60-7)	
Acute Inhalation toxicity	no data available
Acute Dermal toxicity	no data available
Skin irritation	no data available
eye irritation	no data available
Respiratory or skin sensation	no data available
Germ cell mutagenicity	no data available
Carcinogenicity	Limited evidence of carcinogenicity in human studies
IARC	Group 1: Carcinogenic to humans (Quartz)
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	Known to be human carcinogen (Quartz)
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 exposure	no data available
Specific target organ toxicity - repeated exposure - inhalation	may cause damage to organs through prolonged or repeated exposure
Aspiration hazard	no data available

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Additional information	
	Prolonged inhalation of crystalline silica may result in silicosis, a disabling
	pulmonary fibrosis characterized by fibrotic changes and miliary nodules
	in the lungs, a dry cough, shortness of breath, emphysema, decreased
	chest expansion, and increased susceptibility to tuberculosis. In advanced
	stage, loss of appetite, pleuric pain, and total incapacity to work.
	Advanced silicosis may result in death due to cardiac failure or destruction
	of lung tissue. Crystalline silica is classified as group 1 "known to be
	carcinogenic to humans" by IARC and "sufficient evidence" of
	carcinogenicity by the NTP., The chronic health risks are associated with
	respirable particles of 3-4 um over protracted periods of time. Currently,
	there is a limited understanding of the mechanisms of quartz toxicity,
	including its mechanisms for lung carcinogenicity. Additional studies are
	needed to determine whether the cell transforming activity of quartz is
	related to its carcinogenic potential.
Additional information	Liver - Irregularities - based on human evidence
Hydrated magnesium silicate(14807-96-6)	
Acute toxicity - inhalation	No data available
Acute toxicity - dermal	No data available
Skin irritation - human	Mild skin irritation 3 h
Eye irritation	No data available
Respiratory or skin sensitisation	No ata available
Germ cell mutagenicity	
	No data available
Carcinogenicity - rat - inhalation	Equivocal tumorigenic agent by RTECS criteria. Lungs, thorax, or
	respiration: Tumors
IARC	Group 3: Not classifiable as to its carcinogenicity to humans
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
Specific target organ toxicity - single	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
Additional information	
	properties have not been thoroughly investigated
Additional information	Stomach irregularities based on human evidence
Limestone(1317-65-3)	
Draize test, rabbit, eye	750 ug/24H severe
Draize test, rabbit, skin	500 mg/24H moderate
Oral, rat: LD50	6450 mg/kg
ACGIH, IARC, NTP, CA Prop 65	Not listed
Epidemiology	No information available
1 3/	
Teratogenicity	No information available
Teratogenicity Reproductive effects	No information available No information available
Teratogenicity	No information available
Teratogenicity Reproductive effects	No information available No information available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity	No information available No information available No information available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7)	No information available No information available No information available No information available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat	No information available No information available No information available No information available > 10000 mg/kg
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation	No information available No information available No information available No information available > 10000 mg/kg No data available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat	No information available No information available No information available No information available > 10000 mg/kg No data available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - rabbit	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - nabbit Respiration or skin sensitisation	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - rabbit	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - nabbit Respiration or skin sensitisation	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - inhalation Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - human Eye irritation - rabbit Respiration or skin sensitisation Germ cell mutagenicity - hamster - ovary - micronucleus test	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - ID50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye irritation - human Eye irritation - rabbit Respiration or skin sensitisation Germ cell mutagenicity - hamster - ovary - micronucleus test Germ cell mutagenicity - hamster - lungs	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - ID50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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 -	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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 -	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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 -	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available No results available No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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 -	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available DNA inhibition No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available DNA inhibition No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - oral - rat 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 information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available DNA inhibition No results available No results available
Teratogenicity Reproductive effects Mutagenicity Neurotoxicity Titanium Dioxide(13463-67-7) Acute toxicity - LD50 - oral - rat Acute toxicity - LD50 - dermal - rabbit Skin irritation - human Eye 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	No information available No information available No information available No information available > 10000 mg/kg No data available > 10000 mg/kg Mild skin irritation - 3 h No eye irritation Will not occur No results available DNA inhibition No results available



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 exposure	No data available
Specific target organ toxicity - repeated exposure	No data available
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

1,3,5-Triglycidyl Isocyanurate(2451-62-9)	
Toxicity to fish - static test LC50 - danio	> 77 mg/l - 96 h
rerio (zebra fish)	
Toxicity to daphnia and other aquatic	> 100 mg/l - 24 h
invertebrates - Immobilization - EC50 -	2 100 mg/1 27 m
daphnia magna (water flea)	
Toxicity to algae - growth inhibition - EC50	29 - 30 mg/l - 72 h
- Desmodesmus subspicatus	,
Toxicity to bacteria - Respiration inhibition	> 100 mg/l 3 h
- IC50 - Sludge Treatment	
Persistence and degradability -	0.5 - 1% - not biodegradable
biodegradability - aerobic - exposure time:	
44 d	
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT & vPvB	not available/not required
Other adverse effects	An environmental hazard cannot be excluded in the event of
	unprofessional handling or disposal. Harmful to aquatic life with long
	lasting effects
Aluminum Oxide(1344-28-1)	
Toxicity	No toxicity at the limit of solubility
Persisitence and degradability	The methods for determining biodegradability are not applicable to
	inorganic substances
Bioaccumulative potential	Does not bioaccumulate
Mobility in soil	No data available
PBT and vPvB	Not available/not required
Other adverse effects	No data available.
Amorphous Pyrogenic Silica(112945-52-5)	AL LIN
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
Amorphous Silica(112926-00-8)	na data availabla
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
Carbon Black(1333-86-4)	Dania raria (zahra fish) > 1000 mg/L 06 h
Toxicity to fish LC50 EC50 Toxicity to daphnia and other aquatic	Danio rerio (zebra fish) >1000 mg/l - 96 h Daphnia magna (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline
invertebrates	
	202) Desmodesmus subspicatus (green algae > 10,000 mg/l - 72 h (OECD Test
EC50 Toxicity to algae	Guideline 201)
Persistence and degradability	No data available
Bioaccumulative potential	No data available
Mobility in soil	No data available
PBT and vPvB assessment	Not available/not required
Crystalline Silica(14808-60-7)	
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
Hydrated magnesium silicate(14807-96-6)	
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
Limestone(1317-65-3)	
Ecotoxicity	No data available
Environmental	No information reported
Physical	No information available
Titanium Dioxide(13463-67-7)	
Toxicity to fish - LC50 - other fish	> 1000 mg/L / 96 h
Toxicity to daphnia and other aquatic	> 1000 mg/L / 48 h
invertebrates - EC50 - Dapphnia magna	
(water flea)	
Toxicity to daphnia and other aquatic	1000 mg/L / 48 h
invertebrates - EC0 - Daphnia magna	
(water flea)	
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

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

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
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Hydrated magnesium silicate	14807-96-6
Aluminum Oxide	1344-28-1

SARA 313 : No SARA 313 chemicals are present

CLEAN AIR ACT :

INTERNATIONAL REGULATIONS

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

Eye Dam. 1	H318	Causes serious eye damage
Skin Sens. 1	H317	May cause an allergic skin reaction
Muta. 1B	H340	May cause genetic defects
Carc. 2	H351	Suspected of causing cancer
STOT RE 1	H372	Causes damage to organs through prolonged or repeated exposure
Aquatic Chronic 3	H412	Harmful to aquatic life with long lasting effects

NATIONAL REGULATIONS

This product contains:	Chemical CAS#
~Titanium Dioxide	13463-67-7

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
*Hydrated magnesium silicate	14807-96-6
*Crystalline Silica	14808-60-7
*Carbon Black	1333-86-4

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 <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 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#	
Limestone	1317-65-3	
Titanium Dioxide	13463-67-7	
Hydrated magnesium silicate	14807-96-6	
Aluminum Oxide	1344-28-1	
Amorphous Silica	112926-00-8	
Crystalline Silica	14808-60-7	
Carbon Black	1333-86-4	

Pennsylvania Right to Know

This product contains	Chemical CAS#
Limestone	1317-65-3
Titanium Dioxide	13463-67-7
Hydrated magnesium silicate	14807-96-6
Aluminum Oxide	1344-28-1
Amorphous Silica	112926-00-8
Crystalline Silica	14808-60-7
Carbon Black	1333-86-4
Amorphous Pyrogenic Silica	112945-52-5
Butyltriphenylphoshonium Chloride	13371-17-0



New Jersey Right to Know

This product contains	Chemical CAS#
Limestone	1317-65-3
Titanium Dioxide	13463-67-7
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Hydrated magnesium silicate	14807-96-6
Aluminum Oxide	1344-28-1
Amorphous Silica	112926-00-8
Crystalline Silica	14808-60-7
Carbon Black	1333-86-4
Amorphous Pyrogenic Silica	112945-52-5
Butyltriphenylphoshonium Chloride	13371-17-0



16. OTHER INFORMATION

Other Product Information:

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

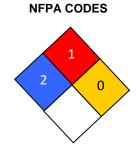
% Volatile by Weight :	0.00
% Solids by Weight :	100.00

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 :	E



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