

T075-BK211 COPPER VEIN
1. PRODUCT AND COMPANY IDENTIFICATION
PRODUCT NAME: T075-BK211 COPPER VEIN

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 :

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

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
1,3,5-Triglycidyl Isocyanurate	1% - 5%	2451-62-9
Mica	1% - 5%	12001-26-2
Carbon Black	0.50% - 0.99%	1333-86-4

4. FIRST AID MEASURES
Description of first aid measures.



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

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

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.

ENVIROMENTAL 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/m ³ 8 hours
Carbon Black(1333-86-4)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	3 mg/m ³ 8 hours
NIOSH REL (Recommended Exposure Limit)	TWA (Time Weighted Average)	0.1mg of PAHs/cm ³ 10 hours
NIOSH REL (Recommended Exposure Limit)	TWA (Time Weighted Average)	3.5 mg/m ³ 8 hours
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	3.5 mg/m ³ 8 hours
E-Caprolactam(105-60-2)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	5mg/m ³ 8 hours
Ethylene Glycol(107-21-1)		
ACGIH TLV (Threshold Limit Value)	ACGIH C (Ceiling)	100 mg/m ³
Mica(12001-26-2)		
ACGIH TLV (Threshold limit Value)	TWA (Time Weighted Average)	3mg/m ³ (Respirable Fraction) 8 hours
NIOSH REL (Recommend Exposure Limit)	TWA (Time Weighted Average)	3mg/m ³ (Respirable Fraction)
OSHA PEL (Permissible Exposure Limit)	Ceiling	20 mppcf
Titanium Dioxide(13463-67-7)		
ACGIH TLV (Threshold Limit Value)	TWA (Time Weighted Average)	10 mg/m ³ 8 hours
OSHA PEL (Permissible Exposure Limit)	TWA (Time Weighted Average)	15 mg/m ³ 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	:	1.5344
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)	
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 - LC50 - inhalation - rat - male - 4 h	> 650 mg/m3
Acute toxicity - LD50 - Dermal - rat- male & female	> 2000 mg/kg
Acute toxicity - LD50 - oral - rat	100 - 200 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	Severe eye irritation
Germ cell mutagenicity	In vivo tests showed mutagenic effects
Germ cell mutagenicity - AMES test - mouse - male	Positive
Germ cell mutagenicity - AMES test - S. typhimurium	Positive
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
Respiratory or skin sensation - Maximization test - guinea pig	May cause sensitization by skin contact
Skin irritation - rabbit	Mild skin irritation - 24 hours
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 exposure	no data available
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 - tumorigenic	Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration: Tumors
Eye irritation	No data available
Germ cell mutagenicity - mouse - micronucleus test	No reported data
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
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 exposure	No data available
Carbon Black(1333-86-4)	
Aspiration hazard	No data available
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.
DNA repair - Rat - Female	Negative
Eye damage/irritation - Rabbit	No eye irritation, (OECD Test Guideline 405)
Germ cell mutagenicity	Ames test, <i>S. typhimurium</i> , negative
Hamster - Ovary	Negative
IARC	2B - Group 2B: Possibly carcinogenic to humans (carbon black)
LD50 Dermal - Rabbit	> 3,000 mg/kg
LD50 Inhalation - Rat	No data available
LD50 Oral - Rat	> 8,000 mg/kg, male and female, (OECD Test Guideline 401)
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
Organ toxicity	Specific target organ toxicity - repeated exposure: No data available
Organ toxicity	Specific target organ toxicity - single exposure: No data available
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
Respiratory/skin sensitization - Guinea pig	Did not cause sensitization on laboratory animals, (OECD Test Guideline 406)
Skin corrosion/irritation	No skin irritation - 24 h, (OECD Test Guideline 404)
E-Caprolactam(105-60-2)	
Acute toxicity - LC50 - inhalation - mouse	450 mg/m ³ : Muscle contraction or spasticity
Acute toxicity - LC50 - inhalation - rat	300 mg/m ³
Acute toxicity - LD50 - dermal - rat	> 2000 mg/kg
Acute toxicity - LD50 - oral - rat	1210 mg/kg
Additional information	Convulsions, 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
Behavioral	Convulsions or effect on seizure threshold.
Carcinogenicity	This product is or contains a component that is probably not carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.
Eye irritation - rabbit	Moderate eye irritation - 24 h



IARC	Group 4: Probably not carcinogenic 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
Nutritional and Gross Metabolic - changes in body temperature	Decrease
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
Remarks	Sense organs and special senses (nose, eye, ear and taste): Eye: Chromodacryorrhea
Reproductive toxicity	No data available
Respiration or skin sensitization - germ cell mutagenicity	No data available
Skin irritation - rabbit	Mild skin irritation - 24 h
Specific target organ toxicity - repeated exposure	No data available
Specific target organ toxicity - single exposure	May cause respiratory irritation
Ethylene Glycol(107-21-1)	
Additional Information	RTECS: KW2975000 When ingested early symptoms mimic alcohol inebriation and are followed by nausea, vomiting, abdominal pain, weakness, muscle tenderness, respiratory failure, convulsions, cardiovascular collapse, pulmonary edema, hypocalcemic tetany, and severe metabolic acidosis. Without treatment, death may occur in 8 to 24 hours. Victims who survive the initial toxicity period usually develop renal failure along with brain and liver damage. Exposure to and/or consumption of alcohol may increase toxic effects. Central nervous system - Irregularities - Based on Human Evidence Central nervous system - Irregularities - Based on Human Evidence
Aspiration hazard	No data available.
Carcinogenicity	This product is or contains a component that is probably not carcinogenic 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 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.
Germ cell mutagenicity	No data available.
Inhalation	No data available.
LD50 Dermal - Rabbit	10,626 mg/kg, Dermal - Rabbit
LD50 Oral - Rat - Acute toxicity	4,700 mg/kg, Oral- Rat
Reproductive toxicity	Laboratory experiments have shown teratogenic effects. Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	Eyes - Rabbit Result: Mild eye irritation - 24 h
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation
Specific target organ toxicity - repeated	Oral - May cause damage to organs through prolonged or repeated exposure. - Kidney
Specific target organ toxicity - single exposure	No data available.
Iron Oxide(1309-37-1)	
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 carcinogenicity based on its IARC, ACGIH, NTP or EPA classification.
Carcinogenicity - rat - subcutaneous	Equivocal tumorigenic agent by RTECS criteria. Tumors at site of application.
Eye irritation - human	Moderate eye irritation
Germ cell mutagenicity	No data available



IARC	Group 3: not classifiable as to its carcinogenicity to humans (diiron trioxide).
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 sensitization	No data available
Skin irritation - human	Skin irritation
Specific target organ toxicity - repeated exposure	No data available
Specific target organ toxicity - single exposure	inhalation - may cause respiratory irritation.
Mica(12001-26-2)	
Chronic effects on humans	The substance is toxic to lungs, mucous membranes.
Other toxic effects on humans	Hazardous on case of ingestion, of inhalation. Slightly hazardous in case of skin contact (irritant).
Routes of entry	Inhalation, ingestion
Special remarks on other toxic effects on humans	Nuisance dust.
Special remarks on the chronic effects on humans	Not available
Special remarks on the toxicity to animals	Not available
Toxicity to animals - LC50	Not available
Toxicity to animals - LD50	Not available
Silica (67%)(12001-26-2)	
Acute toxicity - oral - LD50 - rat	> 2000 mg/kg
Assessment of irritating effects	Inhalation of dust may cause respiratory tract irritation, coughing and breathing difficulties. Contact with the eyes or skin may cause mechanical irritation.
Assessment of mutagenicity	Based on the ingredients, there is no suspicion of a mutagenic effect.
Assessment of repeated dose toxicity	Prolonged or repeated exposure may cause pulmonary problems. The product has not been tested. The statement is derived from the properties of the individual components.
Eye irritation	May cause mechanical irritation.
Medical conditions aggravated by overexposure	Inhalation of dust could aggravate existing respiratory conditions.
Other information	The product has not been tested. The statements on toxicology have been derived from the properties of the individual components. The product has been assessed on the basis of the components' available data. To some extent the data gaps exist for individual components. According to our present knowledge and experience dangers which are not covered by the current labeling are not expected.
Primary routes of exposure	Routes of entry for solids and liquids are ingestion and inhalation, but may include eye or skin contact. Routes of entry for gases include inhalation and eye contact. Skin contact may be a route of entry for liquefied gases.
Skin irritation	May cause mechanical irritation.
Symptoms of exposure	Further important symptoms and effects are so far not known. The most important known symptoms and effects are described in the labelling (see section 2 of SDS).
Tin Oxide(18282-10-5)	
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
Acute toxicity - LD50 - oral - rat	> 20,000 mg/kg



Additional information	Inorganic tin salts are poorly absorbed into the body. When parenterally administered tin salts are highly toxic. Tin oxide inhaled as a dust or fume leads to a benign pneumoconiosis with no sign of interference with pulmonary function. Deposited dust appears nodular with the particles being mostly extracellular. No necrosis, foreign-body giant-cell reaction, or collagen formation has been seen. Tin salts that have gained access to the blood stream are highly toxic and produce neurologic damage and paralysis. With most common tin salts, the toxicity profile is complicated by hydrolysis in body fluids producing unphysiological pH values. The reported symptoms of hyperemia, vascular changes with bleeding in the central nervous system, liver, heart, and other organs may be due to tin itself or the unphysiological pH changes. Ingestion produces vomiting due to the gastric irritation from the activity and astringency of tin compounds.
Additional information continued	Ingestion of inorganic tin salts produces diarrhea, muscle paralysis, and twitching. Stomach irregularities based on human evidence.
Aspiration hazard	No data available
Eye irritation	No data available
Germ cell mutagenicity	No data available
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC.
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 sensitization	No data available
Skin irritation	No data available
Specific target organ toxicity - repeated exposure	No data available
Specific target organ toxicity - single exposure	No data available
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 - micronucleus test	No results available
Germ cell mutagenicity - hamster - ovary - sister chromatid exchange	No results available
Germ cell mutagenicity - mouse - micronucleus test	No results available
IARC	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC
NTP	No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen
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 exposure	No data available
Specific target organ toxicity - single exposure	No data available

12. ECOLOGICAL INFORMATION

1,3,5-Triglycidyl Isocyanurate(2451-62-9)	
Bioaccumulative potential	No data available



Mobility in soil	No data available
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
PBT & vPvB	not available/not required
Persistence and degradability - biodegradability - aerobic - exposure time: 44 d	0.5 - 1% - not biodegradable
Toxicity to algae - growth inhibition - EC50 - <i>Desmodesmus subspicatus</i>	29 - 30 mg/l - 72 h
Toxicity to bacteria - Respiration inhibition - IC50 - Sludge Treatment	> 100 mg/l 3 h
Toxicity to daphnia and other aquatic invertebrates - Immobilization - EC50 - <i>daphnia magna</i> (water flea)	> 100 mg/l - 24 h
Toxicity to fish - static test LC50 - <i>danio rerio</i> (zebra fish)	> 77 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)	
Bioaccumulative potential	No data available
EC50 Toxicity to algae	<i>Desmodesmus subspicatus</i> (green algae > 10,000 mg/l - 72 h (OECD Test Guideline 201)
EC50 Toxicity to daphnia and other aquatic invertebrates	<i>Daphnia magna</i> (Water flea) > 5600 mg/l - 24 h (OECD Test Guideline 202)
Mobility in soil	No data available
PBT and vPvB assessment	Not available/not required
Persistence and degradability	No data available
Toxicity to fish LC50	<i>Danio rerio</i> (zebra fish) >1000 mg/l - 96 h
E-Caprolactam(105-60-2)	
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 to algae - EC50 - green algae	4320 - 4800 mg/l - 72 h
Toxicity to daphnia and other aquatic invertebrates - EC50 - <i>Daphnia magna</i> (water flea)	828 - 2920 mg/l - 48 h
Ethylene Glycol(107-21-1)	
Bioaccumulative potential	Does not bioaccumulate. Bioaccumulation other fish - 61 d - 50 mg/l Bioconcentration factor (BCF): 0.60
EC50 - <i>Daphnia magna</i> -	24,000 mg/l - 48 h, <i>Daphnia magna</i> (Water flea)
EC50 - <i>Daphnia magna</i> - Toxicity to daphnia and other aquatic invertebrates	74,000 mg/l - 24 h, <i>Daphnia magna</i> (Water flea)
LC50 - <i>Daphnia magna</i> -	41,000 mg/l - 48 h, <i>Daphnia magna</i> (Water flea)
LC50 - <i>Leuciscus idus</i>	10,000 mg/l - 48 h, <i>Leuciscus idus</i> (Golden orfe)
LC50 - <i>Oncorhynchus mykiss</i> - toxicity to fish	18,500 mg/l - 96 h, <i>Oncorhynchus mykiss</i> (rainbow trout)
Mobility in soil	No data available.
NOEC - <i>Pimephales promelas</i>	32,000 mg/l - 7d, <i>Pimephales promelas</i> (fathead minnow)
NOEC - <i>Pimephales promelas</i>	39,140 mg/l - 96 h, <i>Pimephales promelas</i> (fathead minnow)
Other adverse effects	No data available.
Persistence and degradability	Ratio BOD/ThBOD 0.78 % 12.3
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Iron Oxide(1309-37-1)	



Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	No data available
PBT and vPvB	Not available/not required
Persistence and degradability	No data available
Toxicity	No data available
Mica(12001-26-2)	
BOD5 and COD	Not available
Ecotoxicity	Not available
Products of biodegradation	Possibly hazardous short term degradation products are not likely. However, long term degradation products may arise.
Special remarks on the products of biodegradation	Not available
Toxicity of the products of biodegradation	The products of degradation are as toxic as the original product
Silica (67%)(12001-26-2)	
Additional information - other ecotoxicological advice	The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations. The product has not been tested. The statement has been derived from the properties of the individual components.
Assessment of aquatic toxicity	As the present state of knowledge, no negative ecological effects are expected.
Assessment of bioaccumulation potential	The product will not be readily biodegradable due to its consistency and insolubility in water. The product has not been tested. The statement has been derived from the properties of the individual components.
Assessment of biodegradation and elimination (H2O)	The colourant is insoluble in water and can thus be separated from water mechanically in suitable effluent treatments plants.
Chronic toxicity to fish	No data available
Mobility in soil - assessment transport between environmental compartments	The substance will not evaporate into the atmosphere from the water surface.
Persistence and degradability - elimination information	Not readily biodegradable (by OECD criteria).
Toxicity to aquatic invertebrates - LC50 - daphnia	Not determined / 48 h
Toxicity to aquatic plants - EC50 - algae	Not determined / 72 h
Toxicity to fish -LC50	> 100 mg/L / 96 h
Toxicity to microorganisms - - EC50 - bacteria	Not determined / 0.5 h
Tin Oxide(18282-10-5)	
Bioaccumulative potential	No data available
Mobility in soil	No data available
Other adverse effects	no data available
PBT and vPvB	Not available/not required
Persistence 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
PBT and vPbV	Not available/not required
Persistence and degradability	No data available
Toxicity to daphnia and other aquatic invertebrates - EC0 - Daphnia magna (water flea)	1000 mg/L / 48 h
Toxicity to daphnia and other aquatic invertebrates - EC50 - Daphnia magna (water flea)	> 1000 mg/L / 48 h
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 RESTRCITIONS 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.

**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#
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Mica	12001-26-2
Carbon Black	1333-86-4

SARA 313 : No SARA 313 chemicals are present

CLEAN AIR ACT :**INTERNATIONAL REGULATIONS****CLASSIFICATION ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP) :**

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#
#Carbon Black	1333-86-4

National Regulations Key

Indicates a chemical listed by IARC as a possible carcinogen.

STATE REGULATIONS**CALIFORNIA PROPOSITION 65**

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

California Proposition 65 Key

*This product contains (a) chemical (s) known to the State of California to cause cancer.

#This product contains (a) chemical (s) known to the State of California to be carcinogenic.

+This product contains (a) chemical (s) known to the State of California to cause birth defects or other reproductive harm.

**Massachusetts Right to Know**

This product contains	Chemical CAS#
Barium Sulfate	7727-43-7
Mica	12001-26-2
Carbon Black	1333-86-4
Iron Oxide	1309-37-1
Titanium Dioxide	13463-67-7
Ethylene Glycol	107-21-1
Amorphous Silica	112926-00-8
E-Caprolactam	105-60-2
Tin Oxide	18282-10-5

Pennsylvania Right to Know

This product contains	Chemical CAS#
Barium Sulfate	7727-43-7
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Mica	12001-26-2
Carbon Black	1333-86-4
Iron Oxide	1309-37-1
Titanium Dioxide	13463-67-7
Ethylene Glycol	107-21-1
Amorphous Silica	112926-00-8
E-Caprolactam	105-60-2
Tin Oxide	18282-10-5

New Jersey Right to Know

This product contains	Chemical CAS#
Barium Sulfate	7727-43-7
1,3,5-Triglycidyl Isocyanurate	2451-62-9
Mica	12001-26-2
Carbon Black	1333-86-4
Iron Oxide	1309-37-1
Titanium Dioxide	13463-67-7
Ethylene Glycol	107-21-1
Amorphous Silica	112926-00-8
E-Caprolactam	105-60-2
Tin Oxide	18282-10-5

**16. OTHER INFORMATION****Other Product Information:**

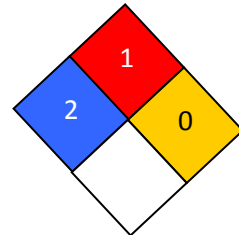
% Volatile by Volume : 0.05 % Volatile by Weight : 0.03
% Solids by volume : 99.95 % Solids by Weight : 99.97

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

NFPA CODES

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