SAFETY DATA SHEET

DATE ISSUED :	1/26/2016
SDS REF. No :	6400-6407 SERIES

6400-6407 S/G H/S POLY

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 6400-6407 S/G H/S POLY

PRODUCT CODE: 6400-6407 SERIES
PRODUCT USE: Industrial Solventborne Paint

MANUFACTURER
Cardinal Industrial Finishes
1329 Potrero Ave

S. El Monte, CA,
626 444-9274

24 HR. EMERGENCY TELEPHONE NUMBER
CHEMTREC (US Transportation): (800)424-9300
CHEMTREC (International Transportation) : 1(202)483-7616
WEB: WWW.CARDINALPAINT.COM

2. HAZARDS IDENTIFICATION

PICTOGRAMS

SIGNAL WORD : DANGER

HAZARD STATEMENTS :
H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS :
P233 Keep container tightly closed.
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P304 + P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P337 + P313 If eye irritation persists: Get medical advice/attention.
P403 Store in a well-ventilated place.
P501 Dispose of in accordance with Local, Regional, State, Federal and International Regulations.
R40 Limited evidence of a carcinogenic effect.
S36 Wear suitable protective clothing.
S37 Wear suitable gloves.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
n-Butyl Acetate	5% - 10%	123-86-4	
Methyl Amyl Ketone	5% - 10%	110-43-0	
Methyl Ethyl Ketone	1% - 5%	78-93-3	

The follow substances may be present in varying quantities depending on color.

Titanium Dioxide	0% - 60%	13463-67-7	
Carbon Black	0% - 40%	1333-86-4	

4. FIRST AID MEASURES

Description of first aid measures.

EYES CONTACT : Flush with large quantities of water for 15 to 30 minutes. Remove contact lenses. Keep eyes wide open while rising. If eye irritation persists: Get medical attention.

SKIN CONTACT : Wash exposed area with mild soap and water for 15 to 30 minutes. Remove contaminated clothing. Repeated exposure may cause dryness or cracking.

INGESTION : Rinse mouth. Do NOT induce vomiting. Keep victim warm and seek immediate attention.

INHALATION : Remove to fresh air and keep in a position comfortable to breath. Call a doctor/physician if you feel unwell. Get medical attention.

Most important symptoms and effects, both acute and delayed. Symptoms/injuries: Eye irritation
Symptoms/injuries after inhalation: May cause drowsiness or dizziness.
Symptoms/injuries after eye contact: Cause serious eye irritation.
Symptoms/injuries after ingestion: Ingestion may cause nausea, vomiting and diarrhea.
Indication of any immediate medical attention and special treatment needed.
If medical advise is needed, have product container or label on hand.

5. FIRE FIGHTING MEASURES

SUITABLE EXTINGUISHING MEDIA : In the event of a fire, use specifically suitable extinguishing agents. Suitable extinguishing media: Foam, alcohol resistant foam, CO2, water fog. Unsuitable extinguishing media: Do not use heavy water stream. A heavy water stream my spread burning liquid.

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 : Fire hazard: Highly flammable/liquid or vapor.
Explosive hazard: May form flammable/explosive vapor-air mixture.

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 :
Equip cleanup crew with proper protection. Avoid breathing fume, vapors.

ENVIRONMENTAL PRECAUTIONS :
Prevent entry to sewers and public waters.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP :
Collect damaged aerosols and use absorbent and/or inert material, then place in suitable container.

7. HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING : Additional hazards when processed: Handle empty containers with care because residual vapors are flammable.

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 to prevent formation of vapor. No smoking. Use only non-sparking tools. Use outdoors or in a well ventilated area. Avoid breathing fume, vapors.
Hygiene measures: Wash Skin thoroughly after handling.

CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES : Storage conditions: Store in a dry, cool and well-ventilated place away from: Heat sources. Direct sunlight.

Incompatible products: Strong bases. Strong acids.

Incompatible materials: Source of ignition. Direct sunlight. Heat Sources.

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

Aluminum Hydroxide(21645-51-2)		
USA ACGIH	ACGIH (TLV) TWA	10 mg/m3 (Total dust), 3 mg/m3 (Respirable fraction)
USA OSHA	OSHA (PEL) TWA	15 mg/m3 (Tptal dust), 5 mg/m3 (Respirable fraction)
Carbon Black(1333-86-4)		
USA ACGIH	ACGIH TLV (mg/m3)	3.0 mg/m3
USA OSHA	OSHA PEL (mg/m3)	3.5 mg/m3
Dibutyltin Dilaurate(77-58-7)		
USA ACGIH	ACGIH STEL	0.2 mg/m3
USA ACGIH	ACGIH TWA	0.1 mg/m3
USA NIOSH	NIOSH REL	0.1 mg/m3
USA OSHA	OSHA PEL (Table Z-1)	0.1 mg/m3
USA OSHA	OSHA TWA (Table Z-1A)	0.1 mg/m3
Isobutyl Alcohol(78-83-1)		
USA ACGIH	ACGIH TWA	50 ppm
USA OSHA	OSHA PEL	100 ppm, 300 mg/m3
Methyl Amyl Ketone(110-43-0)		
USA ACGIH	ACGIH TLV TWA	50 ppm
USA OSHA	OSHA PEL (Table Z-1)	100 ppm, 465 mg/m3
Methyl Ethyl Ketone(78-93-3)		
USA ACGIH	ACGIH STEL (ppm)	300 ppm
USA ACGIH	ACGIH TWA (ppm)	200 ppm
USA OSHA	OSHA PEL (STEL) (ppm)	100 ppm
USA OSHA	OSHA PEL TWA (mg/m3)	410 mg/m3
n-Butyl Acetate(123-86-4)		
USA ACGIH	ACGIH STEL	200 ppm
USA ACGIH	ACGIH TWA	150 ppm
USA OSHA	OSHA PEL (Table Z-1)	150 ppm, 710 mg/m3
Styrene(100-42-5)		
USA ACGIH	ACGIH STEL (ppm)	40 ppm
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA OSHA	OSHA TWA (ppm)	100 ppm
TALC(14807-96-6)		
USA ACGIH	ACGIH (TLV) TWA	2 mg/m3
USA NIOSH	NIOSH (REL) TWA	2 mg/m3
USA OSHA	OSHA (Table Z-3) Mineral Dusts TWA	20 Millon particles per cubic foof
Titanium Dioxide(13463-67-7)		
PEL (Permissible Exposure Limit)	OSHA TWA	15 mg/m3
TLV	ACGIH TWA	10 mg/m3

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : If TLV of the product or any component is exceeded, a NIOSH approved dust respirator is advised in absence of environmental control. OSHA Regulations also permit other NIOSH dust respirators under specified conditions. (See your Safety Equipment Supplier) Engineering or administrative controls should be implemented to reduce exposure.

HAND PROTECTION REMARKS : The suitability for a specific workplace should be discussed with the producers of the protective gloves.

EYES PROTECTION: Eye wash bottle with pure water.
Tightly fitting safety goggles.
Where face-shield and protective suit for abnormal processing problems.

SKIN AND BODY PROTECTION : Wear impervious clothing. Choose body protection according to the amount and concentration of the dangerous substance at the work place.

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	:	Liquid
Color	:	Various colors depending on the pigmentation.
Odor	:	Characteristic. Sweet. Mint like.
Odor threshold	:	No data available.
Ph	:	N/A – See Technical Data Sheet
Evaporation rate	:	Slower Than Ether
Melting point	:	-94.7 C (-138.46 F)
Freezing point	:	No data available.
Boiling point	:	175.0 deg F TO 305.0 deg F
Flash point	:	24.00 deg F deg F
Lower explosion limit	:	1.1
Upper explosion limit	:	11.0
Vapor pressure	:	185 mm Hg
Vapor density	:	Heavier than air
Relative density	:	No data available.
Density	:	15.2965
Solubility	:	No data available.
Partion coefficient: n-octanol/water	:	No data available.
Autoignition temperature	:	No data available.
Decomposition temperature	:	No data available.

10. STABILITY AND REACTIVITY

REACTIVITY : No dangerous reaction known under conditions of normal use.

CHEMICAL STABILITY : Stable under normal conditions.

CONDITIONS TO AVOID : Heat, flames and sparks. Extremely high temperatures and direct sunlight.

INCOMPATIBLE MATERIALS : Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon dioxide (CO2), carbon monoxide (CO), oxides of nitrogen (NOx), dense black smoke.

11. TOXICOLOGICAL INFORMATION

Aluminum Hydroxide(21645-51-2)	
Additional Information	RTECS: BD0940000 Nausea, Vomiting, and Constipation.
Aspiration hazard	No data available.
Carcinogenicity	IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen 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.
Dermal	No data available.
Germ cell mutagenicity	Mouse lymphocyte Result- negative Mutagenicity (micronucleus test) Rat - male Result: negative
Inhalation	No data available.
LD50 Oral - Rat - female - Acute toxicity	>5,000 mg/kg, Oral - Rat - female
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Maximization Test (GPMT) - Guinea pig Result- Does not cause skin sensitization.(OECD Test Guideline 406)
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation (OECD Test Guideline 405)
Skin	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

corrosion/irritation	
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Amorphous Silica(7631-86-9)	
Additional toxicological information	The product is not subject to classification according to internally approved calculation methods for preparations: When used and handled according to specifications, the product does not have any harmful effects according to our experience and information provided to us.
Irritant of skin	Not irritating (rabbit) (OCED 404)
Irritatant of eyes	Not irritating (rabbit) (OCED 405)
LC0 - Inhalative	>140->2000 mg/m3 / 4 h (Rat) (OCED 403)
LD50 - Dermal - Rabbit	>5000 mg/kg (Rabbit)
LD50 - Oral - Rat	>5000 mg/kg (Rat) (OECD 401)
Other information - Oral	=> 1340 mg/kg/day
Sensitization	Not sensitizating (guinea pig) (OCED 406)
Carbon Black(1333-86-4)	
ACGIH	ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.
Carcinogenicity Classification	GHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).
Human Epidemiology	Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small decrements in lung function, as measured by FEV1. A recent U.S. respiratory morbidity study suggested a 27 mL decline in FEV1 from a 1 mg/m3 (inhalable fraction) exposure over a 40-year period. An older European investigation suggested an exposure to 1 mg/m3 (inhalable fraction) of carbon black over a 40-year working-lifetime will result in a 48 mL decline in FEV1. In contrast, normal age related decline over a similar period of time would be approximately 1200 ml. The relationship between symptoms and exposure to carbon black is less clear. In the U.S. study, 9% of the highest exposure group (in contrast to 5% of the unexposed group) reported symptoms consistent with chronic bronchitis. In the European study, methodological limitations in the administration of the questionnaire limit the drawing of definitive conclusions about symptoms.
Human Epidemiology - cont	Since this IARC evaluation of carbon black, Sorahan and Harrington 16) re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney 17-18) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington 16).
Human Epidemiology - cont.	Morfeld and McCunney 19) applied a Bayesian approach to unravel the role of uncontrolled confounders and identified smoking and prior exposure to occupational carcinogens received before being hired in the carbon black industry as main causes of the observed lung cancer excess risk. Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated. This view is consistent with the IARC evaluation in 2006. Several epidemiological and clinical studies of workers in the carbon black production industries show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black. No dose response relationship was observed in workers exposed to carbon black.
Human Epidemiology - cont.	This study, however, indicated a link between carbon black and small opacities on chest films, with negligible effects on lung function. A study on carbon black production workers in the UK 10) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant 11-14) found a similar increase in lung cancer risk but, like the 2001 UK study 10), found no association with carbon black exposure. In contrast, a large US study 15) of 18 plants showed a reduction in lung cancer risk in carbon black production workers. Based upon these studies, the February 2006 Working Group at IARC concluded that the human evidence for carcinogenicity was inadequate 1) .l
IARC	IARC In 1995 IARC concluded, "There is inadequate evidence in humans for the carcinogenicity of carbon black." Based on rat inhalation studies IARC concluded that there is, "sufficient evidence in experimental animals for the carcinogenicity of carbon black," IARC's overall evaluation was that, "Carbon black is possibly carcinogenic to humans (Group 2B)". This conclusion was based on IARC's guidelines, which require such a classification if one species exhibits carcinogenicity in two or more studies. IARC performed another review in 2006, and again classified carbon black as possibly carcinogenic to humans (Group 2B). In its 1987 review IARC concluded, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black extracts." Carbon black extracts are classified as, possibly carcinogenic to humans (Group 2B).
LD50 (Rat)	>8000 mg/kg

Mutagenic Effects and Germ Cell Mutagenicity	In an experimental investigation, mutational changes in the hprt gene were reported in alveolar epithelial cells in the rat following inhalation exposure to carbon black. This observation is believed to be rat specific and a consequence of "lung overload" which led to chronic inflammation and release of genotoxic oxygen species. This mechanism is considered to be a secondary genotoxic effect and thus, carbon black itself would not be considered to be mutagenic. Carbon black is not suitable to be tested in bacterial (Ames test) and other in vitro systems because of its insolubility in aqueous solutions. When tested, however, results for carbon black showed no mutagenic effects. Organic solvent extracts of carbon black can, however, contain traces of polycyclic aromatic hydrocarbons (PAHs). A study to examine the bioavailability of these PAHs showed that PAHs are very tightly bound to carbon black and not bioavailable.
NIOSH	NIOSH The U.S. National Institute of Occupational Safety and Health (NIOSH) 1978 criteria document on carbon black recommends that only carbon blacks with PAH contaminant levels greater than 0.1% require the measurement of PAHs in air. As some PAHs are possible human carcinogens, NIOSH recommends an exposure limit of 0.1 mg/m3 for PAHs in air, measured as the cyclohexane-extractable fraction.
NTP	NTP Carbon black is not designated a carcinogen by the U.S. National Toxicology Program (NTP), the U.S. Occupational Safety and Health Administration (OSHA) or the European Union (EU).
Reproductive and Teratogenic Effects	No experimental studies on effects of carbon black on fertility and reproduction have been located. However, based on toxicokinetic data, carbon black is deposited in the lungs and based on its specific physicochemical properties (insolubility, low absorption potential), it is not likely to distribute in the body to reach reproductive organs, embryo and/or fetus under in vivo conditions. Therefore, no adverse effects of carbon black to fertility/reproduction or to fetal development are expected. No effects have been reported in long-term animal studies.
Sensitization	No animal data is available. No cases in humans have been reported.
STOT- repeated exposure	Therefore, no STOT, Repeated exposure classification is made.
STOT- single exposure	Inhalation studies with the rat showed lung effects (see Section 11.2 and 11.3), these effects are believed to be the effects of "lung overload" 1 and these effects are believed to be specific to the species. In addition, the European CLP Regulation states that no classification is necessary if the mechanism is not relevant to humans. 4) Also, the CLP Guidance on classification and labeling states that the "lung overload" mechanism is not relevant to humans. 4) Therefore, no STOT, Repeated Exposure classification is made
Dibutyltin Dilaurate(77-58-7)	
Chronic Health Hazard	Dibutyltin compounds have shown reproductive and immunotoxic effects in laboratory animals. Abnormalities noted at necropsy of animals treated with 2000 mg/kg of dibutyltin dilaurate were hemorrhagic lungs, dark liver, dark kidneys, hemorrhage of gastric mucosa, hemorrhage of the large and small intestines, enlarged bile duct and behavioral and central nervous system effects. Decreased fertility was seen in hens following dietary administration equal to 78 mg/kg.
Eye irritation/corrosion	Severe eye irritation.
Inhalation	No data is available on the product itself.
LD50 - Rabbit (Dermal)	> 2,000 mg/kg, Method : Estimated.
LD50 - Rat (Ingestion)	> 2,000 mg/kg
Skin irritation/corrosion	Severe skin irritation. Corrosive to the skin of a rabbit.
Isobutyl Alcohol(78-83-1)	
Carcinogenicity Data:	The ingredient(s) of this product is (are) not classified as carcinogenic by ACGIH, IARC, OSHA or NTP.
LC50 Inhalation - Rat	8000 ppm; (4 h)
LD50 Dermal - Rabbit	3400 mg/kg
LD50 Oral - Rat (Acute Toxicity)	2460 mg/kg
Mutagenicity Data:	No adverse mutagenicity effects are anticipated.
Reproductive Data:	No adverse reproductive effects are anticipated.
Respiratory / Skin Sensitization Data:	None known.
Synergistic Materials:	Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide.
Tetragenicity Data:	No adverse Tetragenicity effects are anticipated.
Methyl Amyl Ketone(110-43-0)	
Aspiration hazard	May be harmful if swallowed and enters airways.
Carcinogenicity	No data available.
LD50 Dermal - (Rat)	>2,000 mg/kg
LD50 Inhalation - (Rat)	>16.7 mg/l (4 h)
LD-50 Oral - (Rat)	1,600 mg/kg
Mutagenicity	In vitro, No data available., In vivo, No data available.
Other adverse effects	No data available.
Repeated dose toxicity	No data available.
Reproductive toxicity	No data available.

Respiratory or skin sensitization	Skin Sensitization:, (Mouse) - non-sensitizing.
Serious eye damage/eye irritation	(Rabbit, 24 h): slight.
Skin corrosion/irritation	(Rabbit, 24 h): moderate.
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Methyl Ethyl Ketone(78-93-3)	
Aspiration toxicity	Product: May be harmful if swallowed and enters airways.
Carcinogenicity	Remarks: This information is not available, Carcinogenicity-Assement: Not classified as a human carcinogen.
Further information	Product Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.,
Germ cell mutagenicity	Genotoxicity in vitro: Test Type: Ames test, Metabolic activation: with and without metabolic activation, Method OECD Test Guideline 471
LC50 (mouse) inhalation	320 mg/l (4 h exposure)
LC50 (rat) Oral	3737 mg/kg
LD50 (rabbit) dermal	6,480 mg/kg
Reproductive toxicity	Effects on fetal development, Species: rat female, Application Route: Inhalation, Dose: 400, 1000, 3000 ppm,
Respiratory or skin sensitsation	Test Type: Buehler Test, Species guinea pig, Method OECD Test Guideline 406, Result: Did not cause sensitization on laboratory animals.
Serious eye damage/ eye irritation	Remarks: Severe skin irritation, Species rabbit, Exposure time 24 h, Result: Irritation to eyes
Skin corrosion/irritation	Remarks: Moderate skin irritation, Species rabbit, Exposure time 24 h, Result: Mild skin irritation
STOT - repeated exposure	Product: No data available, Components: No data available.
STOT - single exposure	Product: Target Organs: Central Nervous system, Components: Exposure routes: Inhalation, Product: Target Organs: Central Nervous system
n-Butyl Acetate(123-86-4)	
Aspiration hazard	No data available.
Carcinogenicity	No data available.
Inhalation	No data available.
LD-50 Dermal - (Rabbit)	> 16ml/kg
LD-50 Oral - (Rat)	14,130 mg/kg
Mutagenicity	In vitro: No data available. In vivo: No data available.
Other adverse effects:	No data available.
Repeated dose toxicity	No data available.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	Skin Sensitization:, (Guinea Pig) - non-sensitizing.
Serious eye damage/eye irritation	(Rabbit, 24 h): none
Skin corrosion/irritation	(Rabbit, 24 h): none
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	Narcotic effect.
Styrene(100-42-5)	
Irritation / corrosion - Eye	Species: Rabbit; Result: non-irritant; Method: BASF - Test
Irritation / corrosion - Sensitization	Species: Guinea pig; Result: non-sensitization; Method: OECD Guideline 406.
Irritation / corrosion - Skin	Species: Rabbit; Result: non-irritant; Method: BASF - Test
LC50 Dermal - Rat	Not determined
LC50 Inhalation - Rat	Exposure time 4 h ; not determined
LD50 Oral - Rat	>5,000 mg/kg
TALC(14807-96-6)	

Acute toxicity - Dermal	No data available.
Acute toxicity - Inhalation	No data available.
Additional Information	RTECS: WW2710000 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 stages, loss of appetite, pleuritic 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. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach - Irregularities - Based on Human Evidence Liver - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence Liver - Irregularities - Based on Human Evidence (Quartz).
Aspiration hazard	No data available.
Carcinogenicity	Carcinogenicity - Rat - Inhalation Tumorigenic:Equivocal tumorigenic agent by RTECS criteria. Lungs, Thorax, or Respiration:Tumors. IARC: 1 - Group 1: Carcinogenic to humans (Quartz) IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrous magnesium silicate) 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Hydrous magnesium silicate) 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.
Germ cell mutagenicity	No data available.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	No data available.
Skin corrosion/irritation	Skin - Human Result: Mild skin irritation - 3 h
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Titanium Dioxide(13463-67-7)	
Carcinogenicity	In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50, 250 mg/m3 of respirable Ti02.
Dermal ALD (rabbit)	>10000 mg/m3
Eye irritation	slight irritation
Inhalation 4 h ALC	>6.82 mg/l
ORAL ALD (rat)	>2400 mg/kg
Sensitsation	Did not cause sensitsation on laboratory animals.
Skin irritation	slight irritation

12. ECOLOGICAL INFORMATION

Aluminum Hydroxide(21645-51-2)	
Bioaccumulative potential	Inert material.
EC50 - Daphnia - Toxicity to daphnia and other aquatic invertebrates	>10,000 mg/l, Daphnia magna (Water flea) (OECD Test Guideline 202)
EC50 - Fish - Toxicity ro fish	>10,000 mg/l, Fish
Mobility in soil	Inert material.
NOEC - Toxicity to algae	>0.004 mg/l, 72 h, Pseudokirchneriella subcapitata (algae) - (OECD Test Guideline 201)
Other adverse effects	None known.
Persistence and degradability	Non-degradable
Amorphous Silica(7631-86-9)	
Additional ecological information	General notes: Do not allow product to reach ground water, water course or sewage system.
Bioaccumulative potential	No further relevant information available.
EC50 - Algae	>10000 mg/l (Scenedesmus subspicatus) (72 h) (OCED 201) comparable substance

EC50 - Daphnia magna	>1000 mg/l (Daphnia magna) (24 h) (OCED 202)
LCO - Zebra fish	10000 mg/l (zebra fish) (96 h) (static) (OCED203)
Mobility in soil	No further relevant information available.
Persistence and degrability	The product is chemically and biologically inert. By the insolubility in water there is a separation at every filtration and sedimentation process.
Carbon Black(1333-86-4)	
Behavior in water treatment plants	Activated sludge, EC0 (3 h) > 800 mg/L. DEV L3 (TTC test)
Bioaccumulation Potential	Potential bioaccumulation is not expected because of the physicochemical properties of the substance
EC50 (Scenedesmus subspicatus)	> 10,000 mg/L, OECD (Guideline 201)
EC50 Daphnia magna (waterflea)	>5600 mg/l (24 h) OECD (Guideline 202)
Environmental fate	Carbon black is an inert solid, stable and insoluble in water or organic solvents. Its vapor pressure is negligible. Based on these properties it is expected that carbon black will not occur in air or water in relevant amounts. Also potential for distribution via water or air can be dismissed. The deposition in soil or sediments is therefore the most relevant compartment of fate in the environment.
LC50 Brachydanio reio (zebrafish)	>1000 mg/l (96 h) OECD (Guideline 203)
NOEC 50 (Scenedesmus subspicatus)	> 10,000 mg/L, OECD (Guideline 201)
Dibutyltin Dilaurate(77-58-7)	
Aquatic toxicity	No data is available on the product itself.
Bioaccumulation	No data is available on the product itself.
EC50 - Daphnia	2.28 mg/l, Species : Daphnia magna.
LC50 - Fish	2 mg/l, Species : Fish.
Mobility	No data available.
Persistence and degradability	Biodegradability : No data is available on the product itself.
Toxicity to other organisms	No data available.
Isobutyl Alcohol(78-83-1)	
Chronic	No data available.
Degradability / Persistence; Biological / A biological Degradation	Evaluation: Not readily biodegradable (by OECD criteria).
EC50 - Aquatic Plants	>100 mg/l (72 h) The product has not been tested. The statement has been derived from properties of the individual components.
EC50 - Daphnia - Acute	>100 mg/l (48 h) The product has not been tested. The statement has been derived from properties of the individual components.
LC50 - Fish - Acute	>100 mg/l (96 h) The product has not been tested. The statement has been derived from properties of the individual components.
Microorganisms	Toxicity to microorganisms: bacteria EC10 (17 h): >750 mg/l. The product has not been tested. The statement has been derived from properties of the individual components.
Methyl Amyl Ketone(110-43-0)	
Aquatic invertebrates	No data available.
Bioaccumulative potential	No data available.
Chronic Toxicity (Fish)	No data available.
ErC50 (Selenastrum capricornutum)	98.2 mg/l, 72 h
LC50 (Fathead Minnow) Acute toxicity	131 mg/l , (96 h)
Mobility in soil	No data available.
Persistence and degradability	69 % (28 d, Ready Biodegradability - CO2 in Sealed Vessels (Headspace Test)). Biological Oxygen Demand BOD-5: 1,770 mg/g BOD-20: 2,000 mg/g , Chemical Oxygen Demand: 2,420 mg/g, BOD/COD ratio No data available.
Results of PBT and vPvB assessment	No data available.
Methyl Ethyl Ketone(78-93-3)	
Bioaccumulative potential	Partition coefficient: n-octanol/water: log Pow: 2.49
EC50 (Algae)	2029 mg/l (48 h; Pseudokirchneriella subcapitata (Green Algae))
EC50 (Daphnia)	308 mg/l (48 h; Daphnia magna (Water flea))
LC50 (fish)	2993 mg/l (96 h; Pimephales promelas (Fathead minnow))
Mobility in soil	No data available

Other adverse effects	No data available
Persistence and degradability	Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d;
Product	Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances:
n-Butyl Acetate(123-86-4)	
Bioaccumulative potential	No data available.
Chronic Toxicity	Fish: No data available. Aquatic invertebrates: No data available. Toxicity to Aquatic Plants: No data available.
LC-50 (Fathead Minnow) Acute Toxicity	18 mg/l, (96 h)
LC-50 (Water Flea) Aquatic invertebrates	44 mg/l , (48 h)
Mobility in soil	Known or predicted distribution to environmental compartments: No data available.
Other adverse effects	No data available.
Persistence and degradability	83 % (28 d), Biological Oxygen Demand:BOD-5: 730 mg/g, Chemical Oxygen Demand:1,010 mg/g, BOD/COD ratio:72 %.
Results of PBT and vPvB assessment	No data available.
Styrene(100-42-5)	
Bioaccumulation	At present state of knowledge, no negative ecological effects are expected.
Chronic	No data available regarding toxicity to Daphnis.
Chronic	No data available regarding toxicity to fish.
EC50 (Algae)	(72 h); No data available concerning toxicity for algae.
EC50 (Daphnia) Acute	(48 h) No data available regarding toxicity to daphnia.
LC50 Fish (Leuciscus idus) Acute	>100 mg/l (96 h)
Microorganisms	Toxicity to microorganisms: The inhibition of the degradation activity sludge is not antipacated when introduced to biological treatment plants in appropriate low conceratrations.
TALC(14807-96-6)	
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Toxicity	No data available.
Titanium Dioxide(13463-67-7)	
LC50 fish	Fathead minnow 96 h >1000 mg/l

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

GENERAL INFORMATION : No data available.
DISPOSAL METHOD: Dispose of waste and residues in accordance with Local, State, and Federal Regulations. Mix with compatible chemical which is less flammable and incenerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind or weld or near this container.

14. TRANSPORT INFORMATION

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

USDOT GROUND
DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME (DOT) : Paint
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 128

IATA (AIR)
DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)
PROPER SHIPPING NAME : Paint
HAZARDS CLASS : 3

UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 128

IMDG (OCEAN)
PROPER SHIPPING NAME : Paint
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 128

MARINE POLLUTANT : No
SPECIAL PRECAUTIONS : P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking. P235 Keep cool.

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS
All ingredients in Section #3 are TSCA (Toxic Substance Control Act) listed.

OSHA HAZARDS : Flammable liquid, Moderate skin irritant, Moderate eye irritant, Carcinogen.
EPCRA - Emergency
CERCLA REPORTABLE QUANTITY

This product contains:	Chemical CAS#
n-Butyl Acetate	123-86-4
Methyl Ethyl Ketone	78-93-3
Isobutyl Alcohol	78-83-1
Carbon Black	1333-86-4

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 : Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313 :

This product contains:	Chemical CAS#
^Titanium Dioxide	13463-67-7
n-Butyl Acetate	123-86-4
^Methyl Amyl Ketone	110-43-0
^Amorphous Silica	7631-86-9
Methyl Ethyl Ketone	78-93-3

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Styrene	100-42-5

INTERNATIONAL REGULATIONS

CLASSIFICATION ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP) :
Flam. Liq. 2 H226
Eye Irrit. 2 H319
STOT SE 3 H336

NATIONAL REGULATIONS

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

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

STATE REGULATIONS
CALIFORNIA PROPOSITION 65

This product contains:	Chemical CAS#
*TALC	14807-96-6

*****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#
n-Butyl Acetate	123-86-4
Methyl Amyl Ketone	110-43-0
Methyl Ethyl Ketone	78-93-3
Silica Gel	112926-00-8
Talc	14807-96-6
Isobutyl Alcohol	78-83-1
Acetylacetone	123-54-6
Carbon Black	1333-86-4

Pennsylvania Right to Know

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
n-Butyl Acetate	123-86-4
Methyl Amyl Ketone	110-43-0
Amorphous Silica	7631-86-9
Methyl Ethyl Ketone	78-93-3
Aluminum Hydroxide	21645-51-2
Silica Gel	112926-00-8
Talc	14807-96-6
Isobutyl Alcohol	78-83-1
Dibutyltin Dilaurate	77-58-7
Acetylacetone	123-54-6
Carbon Black	1333-86-4

New Jersey Right to Know

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
n-Butyl Acetate	123-86-4
Methyl Amyl Ketone	110-43-0
Amorphous Silica	7631-86-9
Methyl Ethyl Ketone	78-93-3
Aluminum Hydroxide	21645-51-2
Silica Gel	112926-00-8
Talc	14807-96-6
Isobutyl Alcohol	78-83-1

Dibutyltin Dilaurate	77-58-7
Acetylacetone	123-54-6
Carbon Black	1333-86-4

16. OTHER INFORMATION

Other Product Information

% Volatile by Volume: 38.08
% Solids by volume: 61.92
% Exempt by Volume: 0.00

% Volatile by Weight: 17.60
% Solids by Weight: 82.40
% Exempt by Weight: 0.00

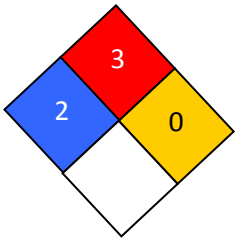
VOC CONTENT:

Excluding Exempt VOC: 323
Including Exempt VOC: 323

HMIS RATING

Health :	2*
Flammability :	3
Reactivity :	0
Personal Protection :	H

NFPA CODES



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