

SAFETY DATA SHEET



DATE ISSUED :	9/1/2015
SDS REF. No :	3500 SERIES

3500 SERIES AIR DRY WATERBORNE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 3500 SERIES AIR DRY WATERBORNE

PRODUCT CODE: 3500 SERIES

PRODUCT USE: Industrial Waterborne 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 : 1(202)483-7616

Transportation)

WEB: WWW.CARDINALPAINT.COM

2. HAZARDS IDENTIFICATION

PICTOGRAMS



SIGNAL WORD : WARNING

HAZARD STATEMENTS : H319 Causes serious eye irritation.

PRECAUTIONARY STATEMENTS : 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.

S36 Wear suitable protective clothing.

S37 Wear suitable gloves.

P501 Dispose of in accordance with Local, Regional, State, Federal, and International Regulations.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
n-Methylpyrrolidone	5% - 10%	872-50-4	
Dipropylene Glycol Methyl Ether	1% - 5%	34590-94-8	
Amorphous Silica	1% - 5%	7631-86-9	

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

Titanium Dioxide	0% - 60%	13463-67-7	
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Carbon Black	0% - 40%	1333-86-4	
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4. FIRST AID MEASURES

Description of first aid measures.

EYES CONTACT : EYE CONTACT: Moderate irritation, tearing or blurred vision.

SKIN CONTACT : SKIN CONTACT: Moderate irritation possible from prolonged exposure; defatting and dermatitis.

INGESTION : INGESTION: Can cause gastrointestinal irritation, headache, dizziness, nausea and weakness.

INHALATION : INHALATION: May cause nasal irritation, headache, dizziness, nausea, weakness or vomiting. Loss of consciousness.

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 : Foam, alcohol foam, CO2, dry chemical, water fog.

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.

ENVIROMENTAL 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/m ³ (Total dust), 3 mg/m ³ (Respirable fraction)
USA OSHA	OSHA (PEL) TWA	15 mg/m ³ (Tptal dust), 5 mg/m ³ (Respirable fraction)
Carbon Black(1333-86-4)		
USA ACGIH	ACGIH TLV (mg/m ³)	3.0 mg/m ³
USA OSHA	OSHA PEL (mg/m ³)	3.5 mg/m ³
Dipropylene Glycol Methyl Ether(34590-94-8)		
USA ACGIH	ACGIH TLV STEL	150 ppm
USA ACGIH	ACGIH TLV TWA	100 ppm
USA NIOSH	NIOSH ST	150 ppm , 900 mg/m ³
USA NIOSH	NIOSH TWA	100 ppm , 600 mg/m ³
USA OSHA	OSHA Table Z-1 TWA	1000 ppm , 600 mg/m ³
n-Methyl-2-pyrrolidone(872-50-4)		
USA ACGIH	ACGIH PEL	N/E
USA OSHA	OSHA TWA	N/E
Titanium Dioxide(13463-67-7)		
PEI (Permissible Exposure Limit)	OSHA TWA	15 mg/m ³
TLV	ACGIH TWA	10 mg/m ³
Triethylamine(121-44-8)		
USA ACGIH	ACGIH (TLV) STEL	3 ppm
USA ACGIH	ACGIH (TLV)TWA	1 ppm
USA OSHA	OSHA (OEL) TWA Table Z-1	25 ppm, 100 mg/m ³

PERSONAL PROTECTIVE EQUIPMENT

RESPIRATORY PROTECTION : If TLV of the product or any component is exceeded, a NIOSH approved Air Supplied Respirator is advised in absence of environmental control. OSHA Regulations also permit other NIOSH 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 : Do not get in eyes. Solvent resistant safety eyewear with splash guards or side shields is recommended.

SKIN AND BODY PROTECTION : Prevent repeated or prolonged skin contact with GB Protective Handcream, wear impervious clothing and chemical resistant boots.

WORK HYGIENIC PRACTICES: Remove and wash soiled clothing before reuse. Wash hands with soap and water after handling paint, before eating, using the rest room or smoking.

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	:	374.0 'F TO 397.0 deg F
Flash point	:	Above 212 deg F
Lower explosion limit	:	1.1
Upper explosion limit	:	14.0
Vapor pressure	:	185 mm Hg
Vapor density	:	Heavier than air
Relative density	:	No data available.

Density	:	10.2385
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.

CONDITIONS TO AVOID : Extremely high temperatures, poor ventilation and excessive aging.

INCOMPATIBLE MATERIALS : Avoid contact with strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Hazardous decomposition may produce carbon dioxide and/or carbon monoxide.

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 corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)
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)
Irritant of eyes	Not irritating (rabbit) (OCED 405)
LC0 - Inhalative	>140->2000 mg/m ³ / 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 sensitization (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

	<p>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.</p>
Human Epidemiology - cont	<p>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).</p>
Human Epidemiology - cont.	<p>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.</p>
Human Epidemiology - cont.	<p>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) .!</p>
IARC	<p>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).</p>
LD50 (Rat)	>8000 mg/kg
Mutagenic Effects and Germ Cell Mutagenicity	<p>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.</p>
NIOSH	<p>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.</p>
NTP	<p>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).</p>
Reproductive and Teratogenic Effects	<p>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 foetus under in vivo conditions. Therefore, no adverse effects of carbon black to fertility/reproduction or to foetal development are expected. No effects have been reported in long-term animal studies.</p>
Sensitization	<p>No animal data is available. No cases in humans have been reported.</p>

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
Dipropylene Glycol Methyl Ether(34590-94-8)	
Additional Information	RTECS: JM 1575000 TO the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Stomach , Irregularities , Based on Human evidence. Stomach , Irregularities , Based on Human evidence.
Aspiration Hazard	No Data Available
Carcinogenicity	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. 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 carcinogen or potential 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	No Data Available
Inhalation	No Data Available
LD50 Oral (RAT)	5,152 mg/kg
Reproductive Toxicity	No Data Available
Respiratory or skin sensitization	No Data Available
Skin Corrosion / Irritation Serious eye damage / eye irritation (EYES , RABBIT)	24 h
Specific target organ toxicity - Repeated Exposure	No Data Available
Specific target organ toxicity - Single Exposure	No Data Available
n-Methyl-2-pyrrolidone(872-50-4)	
Aspiration Hazard	Not Applicable.
Assessment other acute effects	Assessment of STOT single: Causes temporary irritation of the respiratory tract. Irritation / corrosion Assessment of irritating effects: Eye contact causes irritation. Skin contact causes irritation. Causes temporary irritation of the respiratory tract. EU-classification Skin Species: rabbit Result: Slightly irritating. Method: Draize test Literature data. The European Union (EU) has classified this substance with 'Irritating to skin' (R38). Eye Species: rabbit Result: Irritant. Method: Draize test Literature data. Sensitization Assessment of sensitization: Skin sensitizing effects were not observed in animal studies. Mouse Local Lymph Node Assay (LLNA) Species: mouse Result: Non-sensitizing. Method: OECD Guideline 429 The product has not been tested. The statement has been derived from substances/products of a similar structure or composition.
Carcinogenicity	Assessment of carcinogenicity: In long-term animal studies in which the substance was given by inhalation, a carcinogenic effect was not observed. In long-term studies in rats in which the substance was given by feed, a carcinogenic effect was not observed. In long-term studies in rodents exposed to high doses, a tumorigenic effect was found; however, these results are thought to be due to a rodent-specific liver effect that is not relevant to humans. The whole of the information assessable provides no indication of a carcinogenic effect.
Genetic toxicity	Assessment of mutagenicity: The substance was not mutagenic in bacteria. No mutagenic effect was found in various tests with mammalian cell culture and mammals.
LC50 Inhalation - Rat	> 5.1 mg/l (OECD Guideline 403) Exposure time: 4 h An aerosol was tested. Limit concentration test only (LIMIT test). No mortality was observed.
LD50 Dermal - Rat	5,000 mg/m ³ ; Species: rat (male/female) Value: > 5,000 mg/kg (OECD Guideline 402) Literature data.
LD50 Oral - Rat	4,150 mg/kg (OECD Guideline 401) Literature data.
Repeated dose toxicity	Assessment of repeated dose toxicity: After repeated exposure the prominent effect is local irritation. The substance may cause damage to the testes after repeated inhalation of high doses. Experiment
Reproductive toxicity	Assessment of reproduction toxicity: As shown in animal studies, the product may cause damage to the testes after repeated high exposures that cause other toxic effects.
Symptoms of Exposure	Medical conditions aggravated by overexposure Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by exposure to this substance/product.
Tetragenicity	Assessment of teratogenicity: The substance caused malformations/developmental toxicity in

	laboratory animals.
Polypropylene Glycol(25322-69-4)	
Additional Information	RTECS: TR5250000. TO the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Aspiration Hazard	No Data Available
Carcinogenicity	No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by IARC. ACGIH No component of this product present at levels greater than or equal to 0.1% is identified as a probable, possible or confirmed human carcinogen by ACGIH. NTP: 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 NTP. OSHA: 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 OSHA.
Germ Cell Mutagenicity	Ames Test. S. Typhimurium. Result: Negative
Inhalation	No Data Available
LD50 Dermal - Rabbit - Male	3,000 mg/kg OECD Test Guideline 402
LD50 Oral - Rat	2,000 mg/kg
Reproductive Toxicity	No Data Available
Respiratory or Skin Sensitization	In vivo assay - Mouse. Results: Does not cause skin sensitization. OECD Test Guideline 429
Serious Eye Damage/Eye Irritation - Rabbit	No eye irritation (Directive 67/548/EEC, Annex V, B.5)
Single Target Organ Toxicity - Repeated Exposure	No Data Available
Skin Corrosion/Irritation - Rabbit	No skin irritation - 24h
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 TiO2.
Dermal ALD (rabbit)	>10000 mg/m3
Eye irritation	slight irritation
Inhalation 4 h ALC	>6.82 mg/l
ORAL ALD (rat)	>2400 mg/kg
Sensitization	Did not cause sensitization on laboratory animals.
Skin irritation	slight irritation
Triethylamine(121-44-8)	
Additional Information	RTECS: YE0175000 Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., spasm, inflammation and edema of the larynx, spasm, inflammation and edema of the bronchi, pneumonitis, pulmonary edema, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Central nervous system - Irregularities - Based on Human Evidence Central nervous system - Irregularities - Based on Human Evidence
Aspiration hazard	No data available.
Carcinogenicity	Carcinogenicity 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.
LD50 Inhalation - Rabbit	580 mg/kg, Oral - Rabbit, (OECD Test Guideline 402)
LD50 Inhalation - Rat	7.31 mg/l, Inhalation - Rat- 4 h, (OECD Test Guideline 403)
LD50 Oral - Rat - Acute toxicity	730 mg/kg, Oral - Rat, (OECD Test Guideline 401)
Reproductive toxicity	No data available.
Respiratory or skin sensitization	in vivo assay - Guinea pig Result: Did not cause sensitization on laboratory animals.
Serious eye damage/eye irritation	Eyes - Rabbit Result - Risk of serious damage to eyes. (OECD Test Guideline 405)
Skin corrosion/irritation	Skin - Rabbit Result: Extremely corrosive and destructive to tissue. (OECD Test Guideline 404)
Specific target organ	No data available.

toxicity - repeated exposure	
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory 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 to 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)
LC0 - Zebra fish	10000 mg/l (zebra fish) (96 h) (static) (OCED203)
Mobility in soil	No further relevant information available.
Persistence and degradability	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 vapour 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)
Dipropylene Glycol Methyl Ether(34590-94-8)	
Bioaccumulative Potential	No Data Available
EC 50 Toxicity to Daphnia and other aquatic invertebrates	1,919 mg/l , 48 h (Daphnia Magna)
LC 50 Toxicity to Fish	10,000 mg/l , 96 h (Pimephales promelas)
Mobility in Soil	No Data Available
Other Adverse Effects	No Data Available
Persistence and degradability	Biodegradability
Results of PBT and vPvB assessment	PBT vPvB assessment not available as chemical safety assessment not required / conducted
n-Methyl-2-pyrrolidone(872-50-4)	
Additional information	Sum parameter Chemical oxygen demand (COD): (DIN 38409 Part 41) approx. 1,600 mg/g

	Biochemical oxygen demand (BOD) Incubation period 5 d: < 2 mg/g Absorbable organically-bound halogen (AOX): This product contains no organically-bound halogen.
Bioaccumulative potential	Assessment bioaccumulation potential Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.
EC50 (Algae)	> 500 mg/l, (72 h), Scenedesmus subspicatus (DIN 38412 Part 9) The details of the toxic effect relate to the nominal concentration.
EC50 (Daphnia)	> 1,000 mg/l, (24 h), Daphnia magna (DIN 38412 Part 11, static) The details of the toxic effect relate to the nominal concentration.
LD50 (fish)	> 500 mg/l, Salmo gairdneri, syn. O. mykiss (static) The details of the toxic effect relate to the nominal concentration.
Microorganisms/Effect on activated sludge	Toxicity to microorganisms DIN EN ISO 8192 aquatic activated sludge, industrial/EC50 (0.5 h): > 600 mg/l The details of the toxic effect relate to the nominal concentration.
Mobility in soil	Assessment transport between environmental compartments The substance will rapidly evaporate into the atmosphere from the water surface. Adsorption to solid soil phase is not expected.
Persistence and degradability	Assessment biodegradation and elimination (H2O) Readily biodegradable (according to OECD criteria). Elimination information 73 % BOD of the ThOD (28 d) (OECD 301C; ISO 9408; 92/69/EEC, C.4-F) (aerobic, Inoculum conforming to MITI requirements (OECD 301C)) Readily biodegradable (according to OECD criteria). Assessment of stability in water In contact with water the substance will hydrolyze slowly.
Polypropylene Glycol(25322-69-4)	
Bioaccumulative Potential	No Data Available
EC50 Daphnia Magna - Toxicity to daphnia and other aquatic invertebrates	105.8 mg/l - 48 h - OECD Test Guideline 202
EC50 Desmodesmus Subspicatus - Toxicity to Algae	100 mg/l - 72 h - OECD Test Guideline 201
EC50 Sludge Treatment - Toxicity to Bacteria	1,000 mg/l - 3 h - OECD Test Guideline 209
LC50 Danio Rerio - Toxicity to Fish	100 mg/l - 96 h - OECD Test Guideline 203
Mobility in Soil	No Data Available
Other Adverse Effects	No Data Available
Persistence and Degradability	Biodegradability: Aerobic - Exposure time 28 d. Result: 86.6% - Readily biodegradable. OECD Test Guideline 301F
Results of PBT vPvB Assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Titanium Dioxide(13463-67-7)	
LC50 fish	Fathead minnow 96 h >1000 mg/l
Triethylamine(121-44-8)	
Bioaccumulative potential	Bioaccumulation Cyprinids carpio (Carp) - 42 d Bioconcentration factor (BCF): < 0.5 (OECD Test Guideline 305C) Remarks: Does not bioaccumulate.
EC50 - Pseudokirchneriella subcapitata - Toxicity to algae	8 mg/l - 72 h, Pseudokirchneriella subcapitata (green algae) - (OECD Test Guideline 201)
LC50 - Daphnia dubia - Toxicity to daphnia and other aquatic invertebrates	17 mg/l - 48 h, Daphnia dubia (water flea)
LC50 - Oryzias latipes - Toxicity fo fish	24 mg/l - 96 h, Oryzias latipes (Orange-red killifish) - (OECD Test Guideline 203)
LC50 - Toxicity to bacteria	95 mg/l. 17 h
Mobility in soil	No data available.
NOEC - Pseudokirchneriella subcapitata	1.1 mg/l - 72 h, Pseudokirchneriella subcapitata (green algae) - (OECD Test Guideline 201)
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.
Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: 80 % - Readily biodegradable (OECD Test Guideline 301B)
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

GENERAL INFORMATION : No data available.

DISPOSAL METHOD: Recycle whenever possible or destroy by liquid incineration in accordance with applicable regulations. Contaminated absorbent should be incinerated or sent to an approved landfill in accordance with Local, State, and Federal Regulations.

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 By D.O.T., 49 CFR

HAZARDS CLASS : Not Applicable

UN/NA NUMBER : Not Applicable

PACKING GROUP : Not Applicable

EMERGENCY RESPONSE GUIDE (ERG) : Not Applicable

IATA (AIR)

DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)

PROPER SHIPPING NAME : IATA, 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 : IMDG, 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 : P403 Store in a well-ventilated place. 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#
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 AMENDMENRS 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-Methylpyrrolidone	872-50-4
^Dipropylene Glycol Methyl Ether	34590-94-8
^Amorphous Silica	7631-86-9
^Carbon Black	1333-86-4

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Triethylamine	121-44-8

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

Eye Irrit. 2 H319

NATIONAL REGULATIONS

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

Indicates a chemical listed by IARC as a possible carcinogen.

**STATE REGULATIONS
CALIFORNIA PROPOSITION 65**

This product contains:	Chemical CAS#
+n-Methylpyrrolidone	872-50-4

*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#
Dipropylene Glycol Methyl Ether	34590-94-8
Ammonium Benzoate	1863-63-4
Carbon Black	1333-86-4

Pennsylvania Right to Know

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
Dipropylene Glycol Methyl Ether	34590-94-8
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Ammonium Benzoate	1863-63-4
Carbon Black	1333-86-4
Polypropylene Glycol	25322-69-4
Amorphous Silica	7631-86-9

New Jersey Right to Know

This product contains	Chemical CAS#
Titanium Dioxide	13463-67-7
Dipropylene Glycol Methyl Ether	34590-94-8
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Carbon Black	1333-86-4
Polypropylene Glycol	25322-69-4

Amorphous Silica	7631-86-9
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16. OTHER INFORMATION

Other Product Information

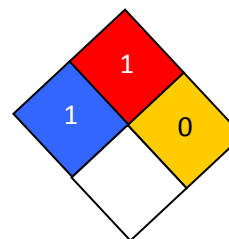
% Volatile by Volume: 64.62	% Volatile by Weight: 52.35
% Solids by volume: 35.38	% Solids by Weight: 47.65
% Exempt by Volume: 52.53	% Exempt by Weight: 42.68

VOC CONTENT: Excluding Exempt VOC: 250
Including Exempt VOC: 119

HMIS RATING

Health :	1*
Flammability :	1
Reactivity :	0
Personal Protection :	H

NFPA CODES



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