SAFETY DATA SHEET

DATE ISSUED :	8/6/2018
SDS REF. No :	4H00 SERIES

4H00 SERIES A/D WATER REDUCIBLE ENAMEL

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 4H00 SERIES A/D WATER REDUCIBLE ENAMEL

PRODUCT CODE: 4H00 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 Transportation) : 1(202)483-7616
WEB: WWW.CARDINALPAINT.COM

2. HAZARDS IDENTIFICATION

PICTOGRAMS

SIGNAL WORD : WARNING

HAZARD STATEMENTS :
H302+H312+H332 Harmful if swallowed, in contact or inhaled.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H351 Suspected of causing cancer.
H373 May cause damage to organs through prolonged or repeated exposure.

PRECAUTIONARY STATEMENTS :
P264 Wash thoroughly after handling.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P312 Call a POISON CENTER or doctor/physician if you feel unwell.
P304 + P340 + P310 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER/doctor.
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.
S36 Wear suitable protective clothing.
S37 Wear suitable gloves.
R40 Limited evidence of a carcinogenic effect.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
Glycol Ether PM	5% - 10%	107-98-2	

Ethylene glycol mono butyl ether	1% - 5%	111-76-2	
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	
Carbon Black	0% - 40%	1333-86-4	

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.

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

2-Ethylhexanoic acid(149-57-5)		
USA ACGIH	ACGI(TLV) RWA	5 mg/m3,
Aliphatic Solvent(64742-47-8)		
USA OSHA	OSHA OEL (TLV) TWA Table Z-1	500 ppm, 2,000 mg/m3
USA ACGIH	ACGIH (TLV) TWA	200 mg/m3
USA OSHA	OSHA OEL Table Z-1	5 mg/m3
USA NIOSH	NIOSH REL (TWA)	5 mg/m3
USA NIOSH	NIOSH REL (ST)	10 mg/m3
Barium Sulfate(7727-43-7)		
USA ACGIH	ACGIH (TLV)TWA	10 mg/m3
USA NIOSH	NIOSH (REL) TWA	5 mg/m3
USA OSHA	OSHA (OEL) TWA	15 mg/m3
BENZENE(71-43-2)		
USA ACGIH	ACGIH TWA	0.5 ppm
USA ACGIH	ACGIH STEL	2.5 ppm
USA OSHA	OSHA TWA (Table Z-1-A)	1 ppm
USA OSHA	OSHA CIEL (Table Z-1-A)	5 ppm
USA OSHA	OSHA STEL	5 ppm
USA OSHA	OSHA CARC PEL	1 ppm
USA OSHA	OSHA CARC STEL	5 ppm
Butyl Alcohol(71-36-3)		
USA ACGIH	ACGIH (TLV) TWA	20 ppm
USA OSHA	OSHA (OEL) TWA Table Z-1	100 ppm, 300 mg/m3
USA NIOSH	NIOSH (REL) C	50 ppm, 150 mg/m3
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
Ethylene glycol mono butyl ether(111-76-2)		
USA ACGIH	ACGIH TWA (ppm)	20 ppm
USA NIOSH	NIOSH REL (ppm)	5 ppm
USA OSHA	OSHA TABLE Z-1 TWA (mg/m3)	50 ppm, 240 mg/m3
USA OSHA	OSHA PO TWA (ppm)	25 ppm
Glycol Ether PM(107-98-2)		
USA ACGIH	ACGIH (TLV) (TWA)	50 ppm
USA ACGIH	ACGIH (TLV) STEL	100 ppm
USA NIOSH	NIOSH (TWA)	100 ppm, 360 mg/m3
USA NIOSH	NIOSH (TLV) ST	150 ppm, 540 mg/m3
Meta-Xylene(108-38-3)		
USA ACGIH	ACGIH TWA (8 h)	100 ppm, 434 mg/m3
USA ACGIH	ACGIH STEL TLV (15 m)	150 ppm, 651 mg/m3
USA OSHA	OSHA TWA (8 h)	100 ppm, 435 mg/m3
Methyl Ethyl Ketoxime(96-29-7)		
USA WEEL	(WEEL) TWA	10 ppm
Phenylethane(100-41-4)		
USA ACGIH	ACGIH TWA	20 ppm
USA ACGIH	ACGIH STEL	125 ppm
USA NIOSH	NIOSH REL	100 ppm, 435 mg/m3
USA NIOSH	NIOSH REL (ST)	125 ppm, 545 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	100 ppm, 435 mg/m3
USA OSHA	OSHA STEL	125 ppm, 545 mg/m3
Red Iron Oxide(1309-37-1)		
Occupational Exposure Limits	No Data Available	

Appropriate Engineering Controls	Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilations or other engineering controls to keep worker exposure to airborne containments below any recommended or statutory limits.	
Personal Protections	Hygiene Measures - Wash hands, forearms, and face thoroughly after handling chemical products, before eating, smoking and using the lab and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.	
Respiratory Protections	The following respirator is recommended if airborne concentrations exceed the appropriate standard/guideline. NIOSH approved, air-purifying particulate respirator with N-95 filters.	
Skin Protections	Wear suitable protective clothing and gloves. Suitable protective footwear.	
Eye/Face Protection	If contact with product is possible, wear safety glasses with side shields.	
Medical Surveillance	No Data Available	
Titanium Dioxide(13463-67-7)		
PEL (Permissible Exposure Limit)	OSHA TWA	15 mg/m3
TLV	ACGIH TWA	10 mg/m3
Toluene(108-88-3)		
USA ACGIH	ACGIH TWA	20 ppm
USA NIOSH	NIOSH REL TWA	100 ppm, 375 mg/m3
USA NIOSH	NIOSH REL (ST)	150 ppm, 560 mg/m3
USA OSHA	OSHA TWA (Table Z-2)	200 ppm
USA OSHA	OSHA TWA (PO)	100 ppm, 375 ppm
USA OSHA	OSHA STEL (PO)	150 ppm, 560 mg/m3
Triethylamine(121-44-8)		
USA ACGIH	ACGIH (TLV)TWA	1 ppm
USA ACGIH	ACGIH (TLV) STEL	3 ppm
USA OSHA	OSHA (OEL) TWA Table Z-1	25 ppm, 100 mg/m3
VM&P Naphtha(64742-89-8)		
USA OSHA	OSHA TWA (Table PO)	400 ppm, 1,600 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	500 ppm, 2,000 mg/m3
Xylene(1330-20-7)		
USA ACGIH	ACGIH TWA	100 ppm
USA ACGIH	ACGIH STEL	150 ppm
USA OSHA	OSHA TWA (Table Z-1)	100 PPM, 435 mg/m3

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	**:**	246.0 deg F TO 334.0 deg F
Flash point	**:**	Above 212 deg F
Lower explosion limit	**:**	No data available.
Upper explosion limit	**:**	No data available.
Vapor pressure	**:**	185 mm Hg
Vapor density	**:**	Heavier than air
Relative density	**:**	No data available.
Density	**:**	10.0242
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

1,10-Phenanthroline(66-71-7)	
LD50 Oral - Rat - Acute toxicity	132 mg/kg
2-Ethylhexanoic acid(149-57-5)	
LD50 Oral - Rat - Acute toxicity	3,000 mg/kg, Oral, Rat
Inhalation	No data available.
LD50 Dermal - Rabbit	1,142 mg/kg, Dermal, Rabbit
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	Eyes - rabbit Result: Severe eye irritation
Respiratory or skin sensitization	No data available.
Germ cell mutagenicity	Human lymphocyte Sister chromatic exchange
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 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	Suspected human reproductive toxicant no data available no data available Developmental Toxicity - rat - Oral Effects on Embryo or Fetus: Fetotoxicity (except death, e.g., stunted

	fetus). Developmental Toxicity - rat - Oral Specific Developmental Abnormalities: Musculoskeletal system. Specific Developmental Abnormalities: Cardiovascular (circulatory) system. Specific Developmental Abnormalities: Urogenital system.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
Additional Information	RTECS: MO7700000 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.
Aliphatic Solvent(64742-47-8)	
Acute toxicity	No data available.
Acute Inhalation toxicity	No data available.
Acute Dermal toxicity	No data available.
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation - 4 h
Serious eye damage/eye irritation	Eyes - Rabbit Result: No eye irritation
Respiratory or skin sensitization	Draize Test - Guinea pig Result: Does not cause skin sensitization.
Germ cell mutagenicity	Reverse mutation assay S. typhimurium Result: negative
Carcinogenicity	IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Distillates (petroleum), hydrotrated light, kerosene - unspecified) NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
Additional Information	RTECS: Not available Prolonged or repeated exposure to skin causes defatting and dermatitis., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Barium Sulfate(7727-43-7)	
LD50 Oral - Rat - Acute toxicity	>15,000 mg/kg
Irritation/corrosion	Product not irritating to eyes or skin.
Sensitsation	No sinsibilisation known.
Chronic Toxicity	No toxic effects known.
BENZENE(71-43-2)	
LD50 Oral	> 2,000 mg/kg Species: rat Sex: female
LC50 Dermal	44.5 mg/l Exposure time: 4 h Species: rat Sex: Not Specified Test atmosphere: vapor
LD50	> 8,260 mg/kg Species: rabbit
Skin irritation	May cause skin irritation in susceptible persons.
Eye irritation	May cause irreversible eye damage.
Sensitization	Did not cause sensitization on laboratory animals.
Repeated dose toxicity	Species: rat, female Sex: female. Application Route: oral gavage Dose: 0, 25, 50, 100 mg/kg Exposure time: 103 wk Number of exposures: 5 d/wk NOEL: < 25 mg/kg Lowest observable effect level: 25 mg/kg Species: rat, male Sex: male Application Route: oral gavage Dose: 0, 50, 100, 200 mg/kg Exposure time: 103 wk Number of exposures: 5 d/wk NOEL: < 50 mg/kg Lowest observable effect level: 50 mg/kg Species: mouse Application Route: oral gavage Dose: 0, 25, 50,100 mg/kg Exposure time: 103 wk NOEL: < 25 mg/kg
Carcinogenicity	Species: rat Sex: female Dose: 0, 25, 50, 250 mg/kg Exposure time: 103 wks Number of exposures: daily, 5 days/week Test substance: yes Remarks: zymbal gland carcinomas, squamous cell papillomas Species: rat Sex: male Dose: 0, 50, 100, 200 mg/kg Exposure time: 103 wks Number of exposures: daily, 5 days/week Test substance: yes Remarks: zymbal gland carcinomas, squamous cell papillomas Species: mouse Sex: male and female Dose: 25, 50, 100 mg/kg Exposure time: 103 wks Number of exposures: daily, 5 days/week Test substance: yes Remarks: Clear evidence of multiple organ carcinogenicity.
Aspiration toxicity	May be fatal if swallowed and enters airways. Substances known to cause human aspiration toxicity hazards or to be regarded as if they cause human aspiration toxicity hazard.

CMR effects	Carcinogenicity: Human carcinogen. Mutagenicity: In vivo tests showed mutagenic effects Teratogenicity: Did not show teratogenic effects in animal experiments. Reproductive toxicity: Animal testing did not show any effects on fertility.
Further information	Chronic Health Hazard. Solvents may degrease the skin.
Butyl Alcohol(71-36-3)	
LD50 Oral - Rat - Acute Toxicity	790 mg/kg, Liver:Fatty liver degeneration. Kidney, Ureter, Bladder:Other changes. Blood:Other changes.
LC50 Inhalation Rat	8,000 ppm, Rat, 4 h
LD50 Dermal - Rabbit	3,400 mg/kg
Skin corrosion/irritation	Rabbit Result: Skin irritation - 24 h
Serious Eye Damage and Irritation	Serious eye damage,eye irritation Eyes - Rabbit Result: Blindness (OECD Test Guideline 405)
Respiratory or skin sensitsation	No data available
Germ cell mutagenicity	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 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.
Reproductively toxicity	No data available
Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness or dizziness
Specific target organ toxicity - repeated exposure	No data available
Aspiration hazard	No data available
Additional Information	RTECS: EO1400000 drying, cracking of the skin, Skin irritation 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
Carbon Black(1333-86-4)	
LD50 (Rat)	>8000 mg/kg
Carcinogenicity Classification	GHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).
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).
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).
ACGIH	ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.
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.
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
STOT- repeated exposure	Therefore, no STOT, Repeated exposure classification is made.
Sensitization	No animal data is available. No cases in humans have been reported.
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.
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 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.
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.	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
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.
Ethylene glycol mono butyl ether(111-76-2)	
LC50 (rat) Oral	Acute toxicity estimate: 500 mg/kg; Method: Expert judgment.; Assessment: the component/mixture is moderately toxic after single ingestion.
LC50 (rat) inhalation	Acute inhalation toxicity: 500 ppm, Exposure time: 4 h; Assessment: the component/mixture is moderately toxic after short term inhalation.
LD50 (rat) dermal	Acute toxicity estimate: 1,1000 mg/kg; Method: Expert judgment; Assessment: the component/mixture is moderately toxic after single contact with skin.
Skin corrosion/irritation	Remarks: Moderate skin irritation in susceptible persons., Species rabbit, Exposure time 24 h, Result: Mild skin irritation
Serious eye damage/ eye irritation	Species rabbit, Exposure time 24 h, Result: Irritating to eyes.
Respiratory or skin sensitsation	Test Type: Maximization test, Species guinea pig, Result: Did not cause sensitsation on laboratory animals.
Germ cell mutagenicity	Genotoxicity in vitro: Test Type: Mammalian cell gene mutation assay; Test species: Chinese hamster (CHO), Metabolic activation: with and without metabolic activation. Result: negative., Genotoxicity in vivo: Test Type: In vivo micronucleus test., Test species:: mouse (male), application Route: Intraperitoneal, Result: negative., Germ cell mutagenicity Assessment: Tests on bacterial or mammalian did not show mutagenic effects.

Carcinogenicity	Species mouse, Application Route: Inhalation, Exposure time 2 yr, Activity duration: 6 h, Frequency of Treatment: 5 days/week, NAOEL: 125 ppm Result: Limited evidence of carcinogenic effects with no relevance to humans., Carcinogenicity-Assement: Not evidence of carcinogenicity in animal studies..
Reproductive toxicity	Effects on fertility : Test Type: Two-generation study Species: mouse Application Route: oral Fertility: NOAEL: 720 mg/kg body weight Symptoms: Reduced fertility Result: Reduced fertility at maternally toxic doses Effects on fetal development : Test Type: Embryo-fetal development Species: rat Application Route: Inhalation Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day Developmental Toxicity: Lowest observed adverse effect level: 100 ppm Result: Developmental toxicity occurred at maternal toxicity dose levels Reproductive toxicity - Assessment : No evidence of adverse effects on sexual function and fertility, and on development, based on animal experiments
STOT - single exposure	No data available.
STOT - repeated exposure	No data available.
Aspiration toxicity	Remarks: No data available.
Further information	Product Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting.,
Repeated dose toxicity	Species: rat NOAEL: 30, Application Route: Inhalation Exposure time: 14 wk Number of exposures: 6 h/d, 5 d/wk.
Glycol Ether PM(107-98-2)	
LD50 Oral - Mouse - Acute Toxicity	11,700 mg/kg, Behavioral:Convulsions or effect on seizure threshold. Behavioral: Ataxia. Lungs, Thorax, or Respiration:Dyspnea.
LC50 Inhalation - Rat - Inhalation	10000 ppm, - Rat - 5 h
LD50 Dermal - Rabbit - Dermal	13,000 mg/kg, Rabbit
Skin corrosion/irritation	No data available.
Serious eye damage/eye irritation	Eyes - Rabbit Result: Mild eye irritation - 24 h Respiratory or skin sensitization
Germ cell mutagenicity	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. NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	May cause drowsiness or dizziness.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
Additional Information	RTECS: UB7700000 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
Additional Information	RTECS: UB7700000 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.
Meta-Xylene(108-38-3)	
LD50 Oral (Rat, Male)	6,602 mg/kg (OECD Test Guideline 401)
LC50 Inhalation (Rat, Male)	6700 ppm, 4 h - (Directive 67/548/EEC, Annex V, B.2.)
LD50 Dermal (Rabbit, Male)	12,126 mg/kg Remarks: Classified according to Regulation (EU) 1272/2008, Annex VI (Table 3.1/3.2). No data available.
Skin corrosion/irritation	Skin - Rabbit Result: Skin irritation - 24 h
Serious eye damage/eye irritation	Eyes - Rabbit Result: Severe eye irritation - 24 h
Respiratory or skin sensitization	Mouse Result: Does not cause skin sensitization. (OECD Test Guideline 429)
Germ cell mutagenicity	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. IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (m-Xylene) 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 presents at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity	Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	May be fatal if swallowed and enters airways.
Additional Information	RTECS: ZE2275000 Liver injury may occur., Kidney injury may occur., Blood disorders, burning sensation, Cough, wheezing, laryngitis, Shortness of breath, Headache, Nausea, Vomiting, narcosis, Lung irritation, chest pain, pulmonary edema, Central nervous system depression, Dermatitis, Gastrointestinal disturbance.
Methyl Ethyl Ketoxime(96-29-7)	
LD50 Oral - Rat - Acute toxicity	2,236 mg/kg, Oral - Rat - (OECD Test Guideline 401)
LC50 Inhalation - Rat - male & female	4.83 mg/l, 4 h, Rat - male & female (OECD Test Guideline 403)
LD50 Dermal - Rabbit	1,000 - 1,800 mg/kg
Skin corrosion/irritation	Skin - Rabbit Result: No skin irritation (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result- Risk of serious damage to eyes. (OECD Test Guideline 405)
Respiratory or skin sensitization	Buehler Test - Guinea pig May cause sensitization by skin contact. (OECD Test Guideline 406)
Germ cell mutagenicity	in vitro assay S. typhimurium Result: negative Drosophila melanogaster - male Result: negative.
Carcinogenicity	Limited evidence of carcinogenicity in animal studies 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 known or anticipated carcinogen by NTP. OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	No data available.
Specific target organ toxicity - repeated exposure	No data available.
Aspiration hazard	No data available.
Additional Information	Repeated dose toxicity - Rat - male - Drinking - No observed adverse effect level - 25 mg/kg Repeated dose toxicity - Rat - male and female - inhalation (vapour) - No observed adverse effect level - 0.009 mg/kg RTECS: EL9275000 To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.
Phenylethane(100-41-4)	
LC50 (Mouse, Male)	10 mg/l Assessment: The component/mixture is moderately toxic after short term inhalation.
LD50 (rabbit)	15,433 mg/kg
Skin corrosion/irritation	Species: rabbit Result: Mild skin irritation
Serious eye damage/eye irritation	Species: rabbit Result: Mild eye irritation Remarks: No data available
Respiratory or skin sensitization	Remarks: No data available
Germ cell mutagenicity	Genotoxicity in vitro, Test Type: Chromosome aberration test in vitro Test species: Chinese hamster ovary (CHO) Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 473 Result: negative GLP: no : Test Type: Mammalian cell gene mutation assay Test species: mouse lymphoma cells Metabolic activation: with and without metabolic activation Method : OECD Test Guideline 476 Result: negative GLP: yes Genotoxicity in vivo : Test Type: In vivo micronucleus test Test species: mouse (male) Application Route: Oral Method: OECD Test Guideline 474 Result: negative GLP: yes Test Type: DNA damage and/or repair Test species: mouse (male and female)Application Route: Inhalation Method: OECD Test Guideline 486 Result: negative GLP: yes Germ cell mutagenicity Assessment : In vivo tests did not show mutagenic effects
Carcinogenicity	Species: mouse, (male and female) Application Route: Inhalation Exposure time: 103 wk Activity duration: 6 h Dose: 0, 75, 250, 750 ppm Frequency of Treatment: 5 days/week NOAEL: 250 ppm Method: OECD Test Guideline 453 Result: evidence of carcinogenic activity Symptoms: increased incidences of alveolar/bronchiolar neoplasms, increase incidence of

	hepatocellular carcinomas GLP: yes Carcinogenicity - Assessment : Carcinogenicity classification not possible from current data.
Reproductive toxicity	Effects on fertility : Test Type: One generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 100, 500 and 1000 ppm Duration of Single Treatment: 6 h General Toxicity - Parent: NOAEC: 1,000 ppm General Toxicity F1: NOAEC: 100 ppm Symptoms: Reduced foetal weight. Reduced offspring weight gain. Method: OECD Test Guideline 415 Result: No reproductive effects. GLP: yes Effects on foetal development : Species: rat Application Route: Inhalation Dose: 0, 100, 500, 1000, 2000 ppm Duration of Single Treatment: 15 d General Toxicity Maternal: NOAEC: 500 ppm Teratogenicity: NOAEC: 2,000 ppm Developmental Toxicity: NOAEC: 500 ppm Symptoms: Reduced body weight Method: OECD Test Guideline 414 Result: Developmental toxicity occurred at maternal toxicity dose levels GLP: No data available Reproductive toxicity - Assessment : No toxicity to reproduction Did not show teratogenic effects in animal experiments.
STOT - single exposure	No data available.
STOT - repeated exposure	Target Organs: Auditory system Assessment: May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Repeated dose toxicity	Species: rat, male and female NOAEL: 75 mg/kg Application Route: Oral Exposure time: 28 d Dose: 75, 250 and 750 mg/kg bw/day Method: OECD Test Guideline 407 GLP: yes Symptoms: Increased kidney and liver weights
Aspiration toxicity	May be fatal if swallowed and enters airways.
Red Iron Oxide(1309-37-1)	
LD50 Oral Bayferrox 130M - Rat	5000 mg/kg - Rat
Irritation/Corrosion	No Data Available
Sensitization	No Data Available
Chronic Toxicity	No Data Available
Mutagenicity	No Data Available
Carcinogenicity	No Data Available
Product/ingredient name	No Data Available
Specific Target Organ Toxicity (Single Exposure)	No Data Available
Specific Target Organ Toxicity (Repeated Exposure)	No Data Available
Acute Toxicity Estimates	No Data Available
Titanium Dioxide(13463-67-7)	
ORAL ALD (rat)	>2400 mg/kg
Dermal ALD (rabbit)	>10000 mg/m3
Inhalation 4 h ALC	>6.82 mg/l
Skin irritation	slight irritation
Eye irritation	slight irritation
Sensitsation	Did not cause sensitsation on laboratory animals.
Carcinogenicity	In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50, 250 mg/m3 of respirable Ti02.
Toluene(108-88-3)	
LD50 (rat, male)	> 5,580 mg/kg
LC50 (rat, male and female)	28.1 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403
LD50 (rabbit)	> 5,000 mg/kg
Skin corrosion/irritation	Species: rabbit Exposure time: 4 h Result: Irritating to skin.
Serious eye damage/eye irritation	Species: rabbit Result: Irritating to eyes. Method: OECD Test Guideline 405
Respiratory or skin sensitization	Test Type: Maximization Test (GPMT) Species: guinea pig Result: Did not cause sensitization on laboratory animals. GLP: yes
Germ cell mutagenicity	Genotoxicity in vitro : Test Type: Mammalian cell gene mutation assay Test species: Mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative : Test Type: Ames test Metabolic activation: with and without metabolic activation Result: negative Genotoxicity in vivo : Test Type: Chromosome aberration assay in vivo Test species: rat Cell type: Bone marrow Application Route: Intraperitoneal Exposure time: 1 or 5 d Dose: 0, 0.025, 0.082, 0.247 ml/kg Result: negative Test Type: Dominant lethal assay Test species: mouse (male) Application Route: inhalation (vapour) Exposure time: 6 h/d, 5 d/wk for 8 wks Dose: 0, 100, 400 ppm Method: OECD Test Guideline 478 Result: negative Germ cell mutagenicity Assessment : Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

Carcinogenicity	Species: rat, (male and female) Application Route: inhalation (vapour) Exposure time: 103 wks Dose: 0, 600, 1200 ppm Frequency of Treatment: 6.5 h/d, 5 d/wk NOAEL: No observed adverse effect level: 1,200 ppm Method: OECD Test Guideline 453 Result: did not display carcinogenic properties Symptoms: Erosion of nasal epithelium Species: rat, (male and female) Application Route: inhalation (vapour) Exposure time: 103 wks Dose: 0, 600, 1200 ppm Frequency of Treatment: 6.5 h/d, 5 d/wk NOAEL: No observed adverse effect level: 1,200 ppm Method: OECD Test Guideline 453 Result: did not display carcinogenic properties Symptoms: Erosion of nasal epithelium Species: rat, (male and female) Application Route: inhalation (vapour) Exposure time: 103 wks Dose: 0, 600, 1200 ppm Frequency of Treatment: 6.5 h/d, 5 d/wk NOAEL: No observed adverse effect level: 1,200 ppm Method: OECD Test Guideline 453 Result: did not display carcinogenic properties Symptoms: Erosion of nasal epithelium , GLP: yes, Carcinogen
Reproductive toxicity	Effects on fertility : Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 100, 500, 2000 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 500 ppm General Toxicity F1: NOAEC: 500 ppm Fertility: NOAEC: 2,000 ppm Symptoms: Reduced maternal body weight gain. Reduced offspring weight gain. Method: OECD Test Guideline 416 Result: Animal testing did not show any effects on fertility. GLP: yes Test Type: Fertility Species: rat, male and female Application Route: inhalation (vapour) Dose: 0, 600, 1200 ppm Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: 600 ppm Symptoms: Decreased sperm count Result: Animal testing did not show any effects on fertility.
Reproductive toxicity (cont.)	Effects on fetal development : Species: rat Application Route: inhalation (vapour) Dose: 0, 250, 750, 1500, 3000 ppm Duration of Single Treatment: 10 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEC: 750 ppm Developmental Toxicity: NOAEC: 750 ppm Symptoms: Maternal toxicity, Reduced body weight, Skeletal malformations. GLP: yes Reproductive toxicity - Assessment : Some evidence of adverse effects on sexual function and fertility, and/or on development, based on animal experiments.
STOT - single exposure	Exposure routes: Target Organs: Assessment: Remarks: Inhalation Central nervous system May cause drowsiness or dizziness. The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with narcotic effects.
STOT - repeated exposure	Inhalation Auditory system, Eyes May cause damage to organs through prolonged or repeated exposure., The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Repeated dose toxicity	Species: mouse, male and female NOAEL: 625 mg/kg LOAEL: 1,250 mg/kg Application Route: Oral Exposure time: 13 wks Number of exposures: 5 d/wk Dose: 312, 625, 1250, 2500, 5000 Group: yes GLP: yes Symptoms: death, Increased liver weight, ataxia, hyperactivity, hypothermia Species: rat, male and female NOAEL: 300 Application Route: inhalation (vapour) Exposure time: 6, 12, or 18 months Number of exposures: 6 h/d, 5 d/wk Dose: 0, 30, 100, 300 ppm Method: OECD Test Guideline 453 Repeated dose toxicity - Assessment : Causes skin irritation.
Aspiration toxicity	Aspiration Toxicity - Category 1
Further information	Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting. Concentrations substantially above the TLV value may cause narcotic effects. Solvents may degrease the skin.
Triethylamine(121-44-8)	
LD50 Oral - Rat - Acute toxicity	730 mg/kg, Oral - Rat, (OECD Test Guideline 401)
LD50 Inhalation - Rat	7.31 mg/l, Inhalation - Rat- 4 h, (OECD Test Guideline 403)
LD50 Inhalation - Rabbit	580 mg/kg, Oral - Rabbit, (OECD Test Guideline 402)
Skin corrosion/irritation	Skin - Rabbit Result: Extremely corrosive and destructive to tissue. (OECD Test Guideline 404)
Serious eye damage/eye irritation	Eyes - Rabbit Result - Risk of serious damage to eyes. (OECD Test Guideline 405)
Respiratory or skin sensitization	in vivo assay - Guinea pig Result: Did not cause sensitization on laboratory animals.
Germ cell mutagenicity	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.
Reproductive toxicity	No data available.
Specific target organ toxicity - single exposure	Inhalation - May cause respiratory irritation.
Specific target organ toxicity - repeated exposure	No data available.

Aspiration hazard	No data available.
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
VM&P Naphtha(64742-89-8)	
LD50 Oral (rat, male and female)	> 5,000 mg/kg Method: OECD Test Guideline 401 GLP: yes
LC50 Inhalation (rat, male and female)	7.6 mg/l Exposure time: 4 h Test atmosphere: vapour Method: OECD Test Guideline 403 GLP: yes
LD50 Dermal (rabbit, male and female)	> 2,000 mg/kg Method: OECD Test Guideline 402 GLP: yes
Skin corrosion/irritation	Species: rabbit Exposure time: 4 h Classification: Irritating to skin Result: Irritating to skin GLP: yes
Serious eye damage/eye irritation	Species: rabbit Result: Not irritating to eyes Exposure time: 1 - 2 s Classification: Not irritating to eyes GLP: yes Remarks: No eye irritation
Respiratory or skin sensitization	Test Type: Buehler Test Species: guinea pig Assessment: Does not cause skin sensitization. Result: Did not cause sensitization on laboratory animals. GLP: yes Remarks: not sensitizing.
Germ cell mutagenicity	Genotoxicity in vitro : Test Type: Ames test Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 471 Result: negative GLP: No data available : Test Type: Mammalian cell gene mutation assay Test species: Mouse lymphoma cells Metabolic activation: with and without metabolic activation Method: OECD Test Guideline 476 Result: negative GLP: no Genotoxicity in vivo : Test Type: In vivo micronucleus test species: rat (male and female) Application Route: Inhalation Exposure time: 6 hours/day Dose: 0, 2000, 10000, 20000 mg/m3 Result: negative GLP: yes Germ cell mutagenicity Assessment : Did not show carcinogenic, teratogenic or mutagenic effects in animal experiments.
Carcinogenicity	Species: mouse, (male) Application Route: Dermal Exposure time: 102 wk Dose: 0.05 ml neat Method: OECD Test Guideline 453 Result: did not display carcinogenic properties GLP: No data available Remarks: Category 1B
Reproductive toxicity	Effects on fertility : Test Type: Two-generation study Species: rat, male and female Application Route: vapour Dose: 0, 5000, 10000, 20000 mg/m³ Duration of Single Treatment: 6 h Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: > 20,000 mg/m³ General Toxicity F1: NOAEC: > 20,000 mg/m³ Symptoms: No adverse effects. Method: OECD Test Guideline 416 GLP: yes Effects on fetal development : Species: rat Application Route: Inhalation Dose: 2653, 7960, 23900 mg/m³ Duration of Single Treatment: 6 h Frequency of Treatment: 7 days/week General Toxicity Maternal: NOAEL: 23,900 mg/m³ Embryo-fetal toxicity.: NOAEL: 23,900 mg/m³ Symptoms: No malformations were observed. Method: OECD Test Guideline 414 GLP: yes
STOT - single exposure	Exposure routes: Inhalation Target Organs: Central nervous system Assessment: May cause drowsiness or dizziness.
STOT - repeated exposure	No data available.
Repeated dose toxicity	Species: rat, male NOAEL: < 500 mg/kg Application Route: Oral Exposure time: 4 wk Number of exposures: 5 d/wk Dose: 500 or 2000 mg/kg/day Symptoms: nephropathy 64742-89-8: Species: rat, male and female NOAEL: 1402 Application Route: inhalation (vapour) Test atmosphere: vapour Exposure time: 13 weeks Number of exposures: 6 hours/day, 5 days/week Material Safety Data Sheet VM&P Naphtha Version 1.2 Revision Date: 08/11/2014 MSDS Number: 100000002744 30 / 44 VM&P Naphtha Dose: 322, 1402, 9869 mg/m3 GLP: yes Target Organs: Kidney Symptoms: Nasal and ocular discharge.
Aspiration toxicity	Aspiration Toxicity - Category 1
Xylene(1330-20-7)	
Acute toxicity Product	Acute oral toxicity : Acute toxicity estimate : 3,523 mg/kg Method: Calculation method.
Acute inhalation toxicity	Acute toxicity estimate, 4631 ppm Exposure time, 4 h Test atmosphere: gas Method; Calculation method.
Acute dermal toxicity	Acute toxicity estimate : 1,100 mg/kg Method: Expert judgment.
LC50 (rat, male) Oral	3,523 mg/kg Method: EU Method B.1 (Acute Toxicity, Oral) Target Organs: Kidney, Bladder GLP: no
LC50 (rat, male) Inhalation	6700 ppm Exposure time: 4 h Method: Directive 67/548/EEC, Annex V, B.2. GLP: No data available Assessment: The substance or mixture is classified as specific target organ toxicant, single exposure, category 3 with respiratory tract irritation. Remarks: Acutely Toxic Category 4
Skin corrosion/irritation	Species: rabbit Exposure time: 24 h Result: Irritating to skin Remarks: Skin irritation, Category 2
Serious eye damage/eye irritation	Species: rabbit Result: Mild eye irritation
Respiratory or skin sensitization	Remarks: No data available

Germ cell mutagenicity	Test Type: Chromosome aberration test in virto. Test Species: Chinese hamster ovary (CHO) Metabolic Activation: With and without metabolic activation. Method Mutagenicity (in vitro mammalian cytogenetic test) Result: Negative. Test Type: Sistrer chromatic exchange assay in mammalian cells.
Germ cell mutagenicity Assessment	Animal testing did not show any mutagenic effects.
Carcinogenicity	Species: mouse, (male and female) Application Route: Oral Exposure time: 103 wk Dose: 0, 500 or 1000 mg/kg Frequency of Treatment: 5 days/week Method: Directive 67/548/EEC, Annex V, B.32. Result: did not display carcinogenic properties GLP: No data available, Carcinogenicity - Assessment : Animal testing did not show any carcinogenic effects.
Reproductive toxicity	Effects on fertility : Test Type: Two-generation study Species: rat, male and female Application Route: Inhalation Dose: 0, 25, 100 and 500 ppm Duration of Single Treatment: 6 h Frequency of Treatment: 7 days/week General Toxicity - Parent: NOAEC: > 500 ppm General Toxicity F1: NOAEC: > 500 ppm Early Embryonic Development: NOAEC: > 500 ppm Result: No reproductive effects. Effects on fetal development : Species: rat Application Route: Inhalation Dose: 0, 100, 500, 1000 or 2000 ppm Duration of Single Treatment: 14 d Frequency of Treatment: 6 hr/day General Toxicity Maternal: NOAEC: 500 ppm Teratogenicity: NOAEC: > 2,000 Developmental Toxicity: NOAEC: 100 ppm Result: No teratogenic effects., Developmental toxicity occurred at maternal toxicity dose levels Reproductive toxicity - Assessment : Animal testing did not show any effects on fertility. Damage to fetus not classifiable
STOT - single exposure	No data available.
STOT - repeated exposure	Target Organs: Liver, Kidney, Central nervous system Assessment: May cause damage to organs through prolonged or repeated exposure.
Repeated dose toxicity	Species: rat, male and female NOAEL: 250 mg/kg Application Route: Oral Exposure time: 103 wk Number of exposures: 5 d/wk Dose: 0, 250 or 500 mg/kg Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.
Aspiration Toxicity	May be fatal if swallowed and enters airways.

12. ECOLOGICAL INFORMATION

2-Ethylhexanoic acid(149-57-5)	
Toxicity	No data available.
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects	No data available.
Aliphatic Solvent(64742-47-8)	
LC50 (Rainbow trout) Toxicity to fish	2.9 mg/l - 96 h, Oncorhynchus mykiss (rainbow trout)
EC50 (Daphnia Magna) Tocicity to daphnia and other aquatic invertebrates	1.4 mg/l - 48 h, - Daphnia magna (Water flea), (OECD Test Guideline 202)
Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life. No data available.
Barium Sulfate(7727-43-7)	
Toxicity - Aquatic toxicity	Not known.
Persistence and degradability	The methods for determining biodegradability are not applicable to inorganic substances.
Bioaccumulative potential	The product is practically insoluble in water and not biodegradable.
Mobility in soil	No information.
Results of PBT and vPvB assessment	According to Annex XIII of regulation (EC) 1907/2006 a PBT and VPvB shall not be conducted for inorganic substances. Barium sulfate is an inorganic substance, thus a PBT abs vPVb assessment is not required.
Other adverse effects	No information.

BENZENE(71-43-2)	
LC50	5.3 mg/l Exposure time: 96 h Species: Oncorhynchus mykiss (rainbow trout) flow-through test substance: yes Method: OECD Test Guideline 203
EC50	10 mg/l Exposure time: 48 h Species: Daphnia magna (Water flea) static test substance: yes Method: OECD Test Guideline 202
ErC50	100 mg/l Exposure time: 72 h Species: Pseudokirchneriella subcapitata (green algae) Test substance: yes Method: OECD Test Guideline 201
Persistence and degradability	Biodegradability : This material is expected to be readily biodegradable.
Ecotoxicology Assessment	Acute aquatic toxicity Benzene : Toxic to aquatic life. Chronic aquatic toxicity Benzene : Harmful to aquatic life with long lasting effects.
Results of PBT assessment	This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Additional ecological information	Toxic to aquatic life. An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.
Butyl Alcohol(71-36-3)	
LC50 Pimephales promelas - toxicity to fish	1,840 mg/l - 96 h, Pimephales promelas (fathead minnow)
EC50 Daphnia magna Toxicity to Daphnia and other aquatic invertebrates	1,983 mg/l - 48 h Daphina magna (Water Flea)
Persistence and degradability	No data available
Bioaccumulative potential	Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 24 h - 921 mg/l
Mobility in Soil	No data available
Result of PBT and vPvB assessment not required/not conducted	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects	No data available
Carbon Black(1333-86-4)	
LC50 Brachydanio reio (zebrafish)	>1000 mg/l (96 h) OECD (Guideline 203)
EC50 Daphnia magna (waterflea)	>5600 mg/l (24 h) OECD (Guideline 202)
NOEC 50 (Scenedesmus subspicatus)	> 10,000 mg/L, OECD (Guideline 201)
EC50 (Scenedesmus subspicatus)	> 10,000 mg/L, OECD (Guideline 201)
Behavior in water treatment plants	Activated sludge, EC0 (3 h) > 800 mg/L. DEV L3 (TTC test)
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.
Bioaccumulation Potential	Potential bioaccumulation is not expected because of the physicochemical properties of the substance
Ethylene glycol mono butyl ether(111-76-2)	
LC50 (fish)	1,474 mg/l Pimephales promelas (Fathead minnow))Exposure time: 96 h Test Type: static test, Method: OECD Test Guideline 203 GLP: no
EC50 (Daphnia)	1,800 mg/l(48 h; Daphnia magna (Water flea)): Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: no
EC50 (Algae)	911 mg/l End point: Biomass Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: OECD Test Guideline 201 GLP: no
Persistence and degradability	aerobic Inoculum: Activated sludge, domestic, adaption not specified, Result: Readily biodegradable. Biodegradation: 90.4 % Exposure time: 28 d Method: OECD Test Guideline 301B GLP: no
Bioaccumulative potential	Partition coefficient: n-octanol/water: log Pow: 0.83
Mobility in soil	No data available
Other adverse effects	No data available
Product	Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances:
Glycol Ether PM(107-98-2)	
Toxicity	No data available.

Persistence and degradability	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	No data available.
Meta-Xylene(108-38-3)	
LC50 (Fish)	11.23 mg/l - 96 h (OECD Test Guideline 203)
Toxicity to daphnia and other aquatic invertebrates	Remarks: No data available.
Toxicity to algae	Remarks: No data available
Persistence and degradability	No data available.
Bioaccumulative potential	Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.
Mobility in soil	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
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.
Methyl Ethyl Ketoxime(96-29-7)	
LC50 - Oryzias latipes - Toxicity to fish	>100 mg/l, 96 h, - Oryzias latipes - (OECD Test Guideline 203)
EC50 - Daphnia magna - Toxicity to daphnia and other aquatic invertebrates	>100 mg/l, 48 h, Daphnia magna (Water flea) - (OECD Test Guideline 202)
EC50 - Scenedesmus capricornutum - Toxicity to algae	11.6 mg/l, 72 h, Scenedesmus capricornutum (fresh water algae) - (OECD Test Guideline 201)
Persistence and degradability	MEKO has been determined to be biodegradable.
Bioaccumulative potential	Bioaccumulation Cyprinus carpio (Carp) - 42 d - 2 mg/l Bioconcentration factor (BCF): 0.5 - 0.6 (OECD Test Guideline 305C)
Mobility in soil	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Other adverse effects	No data available.
Phenylethane(100-41-4)	
LC50 (Oncorhynchus mykiss (rainbow trout))	4.2 mg/l Exposure time: 96 h Test Type: semi-static test
EC50 (Daphnia magna (Water flea))	1.8 mg/l Exposure time: 48 h Test Type: static test
EC50 (Pseudokirchneriella subcapitata)	5.4 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Static GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity)	(Daphnia): 3.6 mg/l Toxicity to bacteria : GLP: Remarks: No data available Ecotoxicology Assessment Chronic aquatic toxicity : Harmful to aquatic life with long lasting effects.
Persistence and degradability	Biodegradability : Inoculum: activated sludge Concentration: 22 mg/l Result: Readily biodegradable. Biodegradation: 70 % Exposure time: 28 d GLP: yes
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.92
Mobility in soil	No data available.
Other adverse effects	Results of PBT and vPvB assessment : This substance is not considered to be persistent, bioaccumulating nor toxic (PBT). This substance is not considered to be very persistent nor very bioaccumulating (vPvB).
Red Iron Oxide(1309-37-1)	
Toxicity	No Data Availble
Persistence and Degradability	No Data Available
Conclusion/Summary	No Data Available
Bioaccumulative Potential	No Data Available

Mobility in Soil	No Data Available
Other Adverse Affects	No Data Available
Titanium Dioxide(13463-67-7)	
LC50 fish	Fathead minnow 96 h >1000 mg/l
Toluene(108-88-3)	
LC50 (Oncorhynchus mykiss (rainbow trout))	5.5 mg/l Exposure time: 96 h Test Type: flow-through test
EC50 (Ceriodaphnia dubia)	3.78 mg/l Exposure time: 48 h Test Type: Renewal
EC50 (Chlorella vulgaris (Fresh water algae))	134 mg/l Exposure time: 3 h Test Type: static test
IC50 (Bacteria)	84 mg/l Exposure time: 24 h, Test Type: Static Ecotoxicology Assessment Acute aquatic toxicity : Toxic to aquatic life. Chronic aquatic toxicity : Toxic to aquatic life with long lasting effects.
Persistence and degradability	Biodegradability : Inoculum: Sewage Biodegradation: 100 % Remarks: Readily biodegradable
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.73
Mobility in soil	No data available.
Other adverse effects	No data available.
Triethylamine(121-44-8)	
LC50 - Oryzias latipes- Toxicity fo fish	24 mg/l - 96 h, Oryzias latipes (Orange-red killifish) - (OECD Test Guideline 203)
LC50 - Daphnia dubia - Toxicity to daphnia and other aquatic invertebrates	17 mg/l - 48 h, Daphnia dubia (water flea)
EC50 - Pseudokirchneriella subcapitata - Toxicity to algae	8 mg/l - 72 h, Pseudokirchneriella subcapitata (green algae) - (OECD Test Guideline 201)
NOEC - Pseudokirchneriella subcapitata	1.1 mg/l - 72 h, Pseudokirchneriella subcapitata (green algae) - (OECD Test Guideline 201)
LC50 - Toxicity to bacteria	95 mg/l. 17 h
Persistence and degradability	Biodegradability aerobic - Exposure time 28 d Result: 80 % - Readily biodegradable (OECD Test Guideline 301B)
Bioaccumulative potential	Bioaccumulation Cyprinus carpio (Carp) - 42 d Bioconcentration factor (BCF): < 0.5 (OECD Test Guideline 305C) Remarks: Does not bioaccumulate.
Mobility in soil	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life.
VM&P Naphtha(64742-89-8)	
LL50 (Fish)	8.2 mg/l Exposure time: 96 h Test Type: semi-static test Analytical monitoring: yes GLP: yes
EL50 (Daphnia magna (Water flea))	4.5 mg/l Exposure time: 48 h Test Type: Immobilization Analytical monitoring: yes Test substance: Naphtha GLP: yes
EL50 (Pseudokirchneriella subcapitata (green algae))	3.7 mg/l Exposure time: 96 h Test Type: static test Analytical monitoring: yes GLP: yes. Ecotoxicology Assessment Acute aquatic toxicity : Harmful to aquatic organisms.
Persistence and degradability	Biodegradability : Concentration: 49.2 mg/l Result: Readily biodegradable. Biodegradation: 77 % Testing period: 2 d Exposure time: 28 d GLP: yes
Bioaccumulative potential	Partition coefficient: noctanol/water: log POW: 2.13 - 4.85 (25 °C)
Mobility in soil	No data available.
Other adverse effects	No data available.
Xylene(1330-20-7)	
LC50 (Oncorhynchus mykiss (rainbow trout))	2.6 mg/l Exposure time: 96 h Test substance: Information given is based on data obtained from similar substances. Method: OECD Test Guideline 203 GLP: No data available
IC50 (Daphnia magna (Water flea))	1 mg/l Exposure time: 24 h Test Type: static test Test substance: Information given is based on data obtained from similar substances. Method: OECD Test Guideline 202 GLP

EC50 (Pseudokirchneriella subcapitata)	4.36 mg/l End point: Growth rate Exposure time: 73 h Test Type: static test Analytical monitoring: yes
Persistence and degradability	Biodegradability : Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 72 % Exposure time: 20 d
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.77 - 3.15
Mobility in soil	No data available.

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 RESTRICTIONS 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#
Ethylene glycol mono butyl ether	111-76-2
VM&P Naphtha	64742-89-8
Xylene	1330-20-7
Phenylethane	100-41-4
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
Glycol Ether PM	107-98-2
Ethylene glycol mono butyl ether	111-76-2
Amorphous Silica	7631-86-9

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Triethylamine	121-44-8
Phenylethane	100-41-4
BENZENE	71-43-2
Toluene	108-88-3
Meta-Xylene	108-38-3

INTERNATIONAL REGULATIONS

CLASSIFICATION ACCORDING TO REGULATION (EC) No. 1272/2008 (CLP) :
Acute Tox. Oral Cat. 4; H302
Acute tox. Dermal Cat 4 H312
Skin Irrit. Cat. 2; H315
Eye Irrit. Cat. 2A; H319
Acute Tox. Inhal. Cat. 4 H332
Carc. Cat. 2; H351
STOT RE Cat. 2; H373

NATIONAL REGULATIONS

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

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

STATE REGULATIONS
CALIFORNIA PROPOSITION 65

This product contains:	Chemical CAS#
*Aliphatic Solvent	64742-47-8
*Phenylethane	100-41-4

PROPOSTION 65 KEY
* **WARNING** Cancer – www P65Warnings.ca.gov

WARNING Reproductive Harm – www P65Warnings.ca.gov

+ **WARNING** Cancer and Reproductive Harm – www P65Warnings.ca.gov

Massachusetts Right to Know

This product contains	Chemical CAS#
Glycol Ether PM	107-98-2
Ethylene glycol mono butyl ether	111-76-2
Silica Gel	112926-00-8
Triethylamine	121-44-8
Red Iron Oxide	1309-37-1
Xylene	1330-20-7
Aliphatic Solvent	64742-47-8
Phenylethane	100-41-4
Butyl Alcohol	71-36-3
Carbon Black	1333-86-4
Barium Sulfate	7727-43-7
BENZENE	71-43-2

Pennsylvania Right to Know

This product contains	Chemical CAS#
Water	7732-18-5
Titanium Dioxide	13463-67-7
Glycol Ether PM	107-98-2
Ethylene glycol mono butyl ether	111-76-2
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Silica Gel	112926-00-8
Triethylamine	121-44-8
Red Iron Oxide	1309-37-1
Methyl Ethyl Ketoxime	96-29-7
Xylene	1330-20-7
Aliphatic Solvent	64742-47-8
Phenylethane	100-41-4
Butyl Alcohol	71-36-3
1,10-Phenanthroline	66-71-7
Carbon Black	1333-86-4
2-Ethylhexanoic acid	149-57-5
Barium Sulfate	7727-43-7
Toluene	108-88-3

New Jersey Right to Know

This product contains	Chemical CAS#
Water	7732-18-5
Titanium Dioxide	13463-67-7
Glycol Ether PM	107-98-2
Ethylene glycol mono butyl ether	111-76-2
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Silica Gel	112926-00-8
Triethylamine	121-44-8
Red Iron Oxide	1309-37-1
Methyl Ethyl Ketoxime	96-29-7

Xylene	1330-20-7
Aliphatic Solvent	64742-47-8
Phenylethane	100-41-4
Butyl Alcohol	71-36-3
1,10-Phenanthroline	66-71-7
Carbon Black	1333-86-4
2-Ethylhexanoic acid	149-57-5
Barium Sulfate	7727-43-7

16. OTHER INFORMATION

Other Product Information

% Volatile by Volume: 66.95
% Solids by volume: 33.05
% Exempt by Volume: 49.52

% Volatile by Weight: 54.19
% Solids by Weight: 45.81
% Exempt by Weight: 41.12

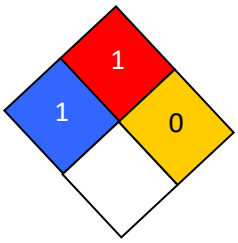
VOC CONTENT:

Excluding Exempt VOC: 311
Including Exempt VOC: 157

HMIS RATING

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

NFPA CODES



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