

SAFETY DATA SHEET



DATE ISSUED :	7/8/2015
SDS REF. No :	4360-73426

4360-73426 GRAY AIR DRY PRIMER
420 GMS./LTR

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 4360-73426 GRAY AIR DRY PRIMER

PRODUCT CODE: 4360-73426

PRODUCT USE: Industrial Solventborne Paint

MANUFACTURER

Cardinal Industrial Finishes
1329 Potrero Ave

S. El Monte, CA,
626 444-9274

24 HR. EMERGENCY TELEPHONE NUMBER

CHEMTREC (US Transportation): (800)424-9300

CHEMTREC (International Transportation) : 1(202)483-7616

WEB: WWW.CARDINALPAINT.COM

2. HAZARDS IDENTIFICATION

PICTOGRAMS



SIGNAL WORD : DANGER

HAZARD STATEMENTS : H226 Flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

PRECAUTIONARY STATEMENTS : P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.

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.

R40 Limited evidence of a carcinogenic effect.

S36 Wear suitable protective clothing.

S37 Wear suitable gloves.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Weight %	CAS Number	
Xylene	15% - 20%	1330-20-7	
Phenylethane	5% - 10%	100-41-4	
Methyl n-Propyl Ketone	5% - 10%	107-87-9	
Titanium Dioxide	1% - 5%	13463-67-7	

Carbon Black	0.10% - 0.50%	1333-86-4	
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4. FIRST AID MEASURES

Description of first and measures.

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

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

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

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

Most important symptoms and effects, both acute and delayed. Symptoms/injuries: Eye irritation

Symptoms/injuries after inhalation: May cause drowsiness or dizziness.

Symptoms/injuries after eye contact: Cause serious eye irritation.

Symptoms/injuries after ingestion: Ingestion may cause nausea, vomiting and diarrhea.

Indication of any immediate medical attention and special treatment needed.

If medical advise is needed, have product container or label on hand.

5. FIRE FIGHTING MEASURES

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

FIRE FIGHTING PROCEDURE : Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering the environment.

Protection during firefighting: Firefighters should wear full protective gear. Do not enter fire area without proper protective equipment, including self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure modes.

UNUSUAL FIRE AND EXPLOSION HAZARD : Fire hazard: Highly flammable/liquid or vapor.

Explosive hazard: May form flammable/explosive vapor-air mixture.

6. ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCEDURES :

General measures: Remove ignition sources. Use special care to avoid static electric charges. No smoking.

FOR NON-EMERGENCY PERSONNEL :

For non-Emergency procedures: Evacuate unnecessary personnel.

FOR EMERGENCY RESPONDERS :

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

ENVIRONMENTAL PRECAUTIONS :

Prevent entry to sewers and public waters.

METHODS AND MATERIAL FOR CONTAINMENT AND CLEAN UP :

Collect damaged aerosols and use absorbent and/or inert material, then place in suitable container.

7. HANDLING AND STORAGE

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

Precautions for safe handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when you are leaving work. Provide good ventilation in process area to prevent formation of vapor. No smoking. Use only non-sparking tools. Use outdoors or in a well ventilated area. Avoid breathing fume, vapors.

Hygiene measures: Wash Skin thoroughly after handling.

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

Incompatible products: Strong bases. Strong acids.

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

8. EXPOSURE CONTROLS\PERSONAL PROTECTION

2,6-DIMETHYL-4-HEPTANONE(108-83-8)		
USA ACGIH	ACGIH (TLV) TWA	25 ppm
USA NIOSH	NIOSH (REL) TWA	25 ppm, 150 mg/m3
USA OSHA	OSHA (OEL) TWA Table Z-1	50 ppm, 290 mg/m3
2-Ethylhexanoic acid(149-57-5)		
USA ACGIH	ACGI(TLV) RWA	5 mg/m3,
Butyl Alcohol(71-36-3)		
USA ACGIH	ACGIH (TLV) TWA	20 ppm
USA NIOSH	NIOSH (REL) C	50 ppm, 150 mg/m3
USA OSHA	OSHA (OEL) TWA Table Z-1	100 ppm, 300 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
Methyl Isobutyl Ketone(108-10-1)		
USA ACGIH	ACGIH TLV (ppm)	75 ppm
USA NIOSH REL	NIOSH STEL (ppm)	75 ppm
USA NIOSH REL	NIOSH TWA (ppm)	50 ppm
USA OSHA	OSHA TWA (ppm)	100 ppm
Phenylethane(100-41-4)		
USA ACGIH	ACGIH STEL	125 ppm
USA ACGIH	ACGIH TWA	20 ppm
USA NIOSH	NIOSH REL	100 ppm, 435 mg/m3
USA NIOSH	NIOSH REL (ST)	125 ppm, 545 mg/m3
USA OSHA	OSHA STEL	125 ppm, 545 mg/m3
USA OSHA	OSHA TWA (Table Z-1)	100 ppm, 435 mg/m3
Pseudocumene(95-63-6)		
USA NIOSH	NIOSH (TWA) REL	25 ppm, 125 mg/m3
Titanium Dioxide(13463-67-7)		
PEL (Permissible Exposure Limit)	OSHA TWA	15 mg/m3
TLV	ACGIH TWA	10 mg/m3
Xylene(1330-20-7)		
USA ACGIH	ACGIH STEL	150 ppm
USA ACGIH	ACGIH TWA	100 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 dust respirator is advised in absence of environmental control. OSHA Regulations also permit other NIOSH dust respirators under specified conditions. (See your Safety Equipment Supplier) Engineering or administrative controls should be implemented to reduce exposure.

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

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

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

WORK HYGIENIC PRACTICES: When using do not eat or drink. When using do not smoke. Wash hands before breaks and at the end of workday.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state	:	Liquid
Color	:	Various colors depending on the pigmentation.
Odor	:	Chartistic. 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	:	213.0 deg F TO 281.0 deg F
Flash point	:	46.00 deg F
Lower explosion limit	:	.8
Upper explosion limit	:	8.7
Vapour pressure	:	185 mm Hg
Vapour density	:	Heavier than air
Relative density	:	No data available.
Density	:	11.2704
Solubility	:	No data available.
Partion coefficient: n-octanol/water	:	No data available.
Autoignition temperature	:	No data available.
Decomposition temperature	:	No data available.

10. STABILITY AND REACTIVITY

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

CHEMICAL STABILITY : Stable under normal conditions.

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

INCOMPATIBLE MATERIALS : Avoid contact with strong oxidizing agents.

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

11. TOXICOLOGICAL INFORMATION

1,10-Phenanthroline(66-71-7)	
LD50 Oral - Rat - Acute toxicity	132 mg/kg
2,6-DIMETHYL-4-HEPTANONE(108-83-8)	
Additional Information	RTECS: Not available 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 (2,6-Dimethylheptan-4-one).
Aspiration hazard	No data available.
available Serious eye damage/eye irritation	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.
Dermal	No data available.
Germ cell mutagenicity	No data available.
Inhalation	No data available.
Oral Toxicity	No data available.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Skin corrosion/irritation	No data available.
Specific target organ toxicity - repeated exposure	No data available.

Specific target organ toxicity - single exposure	No data available.
2-Ethylhexanoic acid(149-57-5)	
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.
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 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	Human lymphocyte Sister chromatid exchange
Inhalation	No data available.
LD50 Dermal - Rabbit	1,142 mg/kg, Dermal, Rabbit
LD50 Oral - Rat - Acute toxicity	3,000 mg/kg, Oral, Rat
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.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	Eyes - rabbit Result: Severe eye irritation
Skin corrosion/irritation	No data available.
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 sensitizing (guinea pig) (OCED 406)
Butyl Alcohol(71-36-3)	
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
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 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
LC50 Inhalation Rat	8,000 ppm, Rat, 4 h
LD50 Dermal - Rabbit	3,400 mg/kg
LD50 Oral - Rat - Acute Toxicity	790 mg/kg, Liver:Fatty liver degeneration. Kidney, Ureter, Bladder:Other changes. Blood:Other changes.
Reproductively toxicity	No data available
Respiratory or skin sensitisation	No data available

Serious Eye Damage and Irritation	Serious eye damage, eye irritation Eyes - Rabbit Result: Blindness (OECD Test Guideline 405)
Skin corrosion/irritation	Rabbit Result: Skin irritation - 24 h
Specific target organ toxicity - repeated exposure	No data available
Specific target organ toxicity - single exposure	May cause respiratory irritation. May cause drowsiness or dizziness
Carbon Black(1333-86-4)	
ACGIH	ACGIH The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.
Carcinogenicity Classification	GHS- Not a hazardous substance or preparation according to the Global Harmonized System (GHS).
Human Epidemiology	Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small decrements in lung function, as measured by FEV1. A recent U.S. respiratory morbidity study suggested a 27 mL decline in FEV1 from a 1 mg/m ³ (inhalable fraction) exposure over a 40-year period. An older European investigation suggested an exposure to 1 mg/m ³ (inhalable fraction) of carbon black over a 40-year working-lifetime will result in a 48 mL decline in FEV1. In contrast, normal age related decline over a similar period of time would be approximately 1200 ml. The relationship between symptoms and exposure to carbon black is less clear. In the U.S. study, 9% of the highest exposure group (in contrast to 5% of the unexposed group) reported symptoms consistent with chronic bronchitis. In the European study, methodological limitations in the administration of the questionnaire limit the drawing of definitive conclusions about symptoms.
Human Epidemiology - cont	Since this IARC evaluation of carbon black, Sorahan and Harrington 16) re-analyzed the UK study data using an alternative exposure hypothesis and found a positive association with carbon black exposure in two of the five plants. The same exposure hypothesis was applied by Morfeld and McCunney 17-18) to the German cohort; in contrast, they found no association between carbon black exposure and lung cancer risk and, thus, no support for the alternative exposure hypothesis used by Sorahan and Harrington 16).
Human Epidemiology - cont.	Morfeld and McCunney 19) applied a Bayesian approach to unravel the role of uncontrolled confounders and identified smoking and prior exposure to occupational carcinogens received before being hired in the carbon black industry as main causes of the observed lung cancer excess risk. Overall, as a result of these detailed investigations, no causative link between carbon black exposure and cancer risk in humans has been demonstrated. This view is consistent with the IARC evaluation in 2006. Several epidemiological and clinical studies of workers in the carbon black production industries show no evidence of clinically significant adverse health effects due to occupational exposure to carbon black. No dose response relationship was observed in workers exposed to carbon black.
Human Epidemiology - cont.	This study, however, indicated a link between carbon black and small opacities on chest films, with negligible effects on lung function. A study on carbon black production workers in the UK 10) found an increased risk of lung cancer in two of the five plants studied; however, the increase was not related to the dose of carbon black. Thus, the authors did not consider the increased risk in lung cancer to be due to carbon black exposure. A German study of carbon black workers at one plant 11-14) found a similar increase in lung cancer risk but, like the 2001 UK study 10), found no association with carbon black exposure. In contrast, a large US study 15) of 18 plants showed a reduction in lung cancer risk in carbon black production workers. Based upon these studies, the February 2006 Working Group at IARC concluded that the human evidence for carcinogenicity was inadequate 1) .!
IARC	IARC In 1995 IARC concluded, "There is inadequate evidence in humans for the carcinogenicity of carbon black." Based on rat inhalation studies IARC concluded that there is, "sufficient evidence in experimental animals for the carcinogenicity of carbon black," IARC's overall evaluation was that, "Carbon black is possibly carcinogenic to humans (Group 2B)". This conclusion was based on IARC's guidelines, which require such a classification if one species exhibits carcinogenicity in two or more studies. IARC performed another review in 2006, and again classified carbon black as possibly carcinogenic to humans (Group 2B). In its 1987 review IARC concluded, "There is sufficient evidence in experimental animals for the carcinogenicity of carbon black extracts." Carbon black extracts are classified as, possibly carcinogenic to humans (Group 2B).
LD50 (Rat)	>8000 mg/kg
Mutagenic Effects and Germ Cell Mutagenicity	In an experimental investigation, mutational changes in the hprt gene were reported in alveolar epithelial cells in the rat following inhalation exposure to carbon black. This observation is believed to be rat specific and a consequence of "lung overload" which led to chronic inflammation and release of genotoxic oxygen species. This mechanism is considered to be a secondary genotoxic effect and thus, carbon black itself would not be considered to be mutagenic. Carbon black is not suitable to be tested in bacterial (Ames test) and other in vitro systems because of its insolubility in aqueous solutions. When tested, however, results for carbon black showed no mutagenic effects. Organic solvent extracts of carbon black can,

	however, contain traces of polycyclic aromatic hydrocarbons (PAHs). A study to examine the bioavailability of these PAHs showed that PAHs are very tightly bound to carbon black and not bioavailable.
NIOSH	NIOSH The U.S. National Institute of Occupational Safety and Health (NIOSH) 1978 criteria document on carbon black recommends that only carbon blacks with PAH contaminant levels greater than 0.1% require the measurement of PAHs in air. As some PAHs are possible human carcinogens, NIOSH recommends an exposure limit of 0.1 mg/m ³ for PAHs in air, measured as the cyclohexane-extractable fraction.
NTP	NTP Carbon black is not designated a carcinogen by the U.S. National Toxicology Program (NTP), the U.S. Occupational Safety and Health Administration (OSHA) or the European Union (EU).
Reproductive and Teratogenic Effects	No experimental studies on effects of carbon black on fertility and reproduction have been located. However, based on toxicokinetic data, carbon black is deposited in the lungs and based on its specific physicochemical properties (insolubility, low absorption potential), it is not likely to distribute in the body to reach reproductive organs, embryo and/or 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.
Sensitization	No animal data is available. No cases in humans have been reported.
STOT- repeated exposure	Therefore, no STOT, Repeated exposure classification is made.
STOT- single exposure	Inhalation studies with the rat showed lung effects (see Section 11.2 and 11.3), these effects are believed to be the effects of "lung overload" 1 and these effects are believed to be specific to the species. In addition, the European CLP Regulation states that no classification is necessary if the mechanism is not relevant to humans. 4) Also, the CLP Guidance on classification and labeling states that the "lung overload" mechanism is not relevant to humans. 4) Therefore, no STOT, Repeated Exposure classification is made
Methyl Isobutyl Ketone(108-10-1)	
Carcinogenicity Data	Methyl Isobutyl Ketone: Possibly carcinogenic to humans. (IARC-2B)
LC50 (Rat, 4) Inhalation	8.2 - 16.4 mg/l
LD50 (Rabbit) Dermal	>1 600 mg/kg
LD50 (Rat) Oral	2 080 - 4 600 mg/kg
Mutagenicity Data	Mutagenicity tests in animals have been negative or inconclusive. See "Other Studies Relevant to Material".
Other Studies Relevant Material	According to the International Agency for Research on Cancer (IARC), methyl isobutyl ketone is possibly carcinogenic to humans. (IARC-2B) MIBK was not teratogenic, embryotoxic or fetotoxic following exposures that did not produce maternal toxicity. Rats and mice were exposed to 300, 1000 or 3000 ppm MIBK on days 6-15 of pregnancy. Exposures to 3000 ppm produced maternal and fetal toxicity, but no teratogenicity. There was no maternal toxicity, embryotoxicity or teratogenicity at 300 or 1000 ppm. Findings of fetotoxicity at 300 ppm were complicated by abnormal litter sizes and were determined not to be treatment related. (4) MIBK produced negative results in the micronucleus cytogenic assay in mice in vivo. Most mutagenicity tests have produced negative results.
Reproductive Data	No adverse reproductive effects are anticipated.
Respiratory / Skin Sensitization Data	None known.
Synergistic Materials	In studies with mice, MIBK prolonged the loss of righting reflex induced by ethanol. In animal studies, MIBK has been shown to potentiate the hepatotoxicity of haloalkanes, such as chloroform, carbon tetrachloride and 1,2-dichlorobenzene. Combined exposure to methyl ethyl ketone and MIBK caused increased behavioral responses in baboons.
Teratogenicity Data	No adverse teratogenic effects are anticipated. See "Other Studies Relevant to Material".
Phenylethane(100-41-4)	
Aspiration toxicity	May be fatal if swallowed and enters airways.
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.
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 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
LC50 (Mouse, Male)	10 mg/l Assessment: The component/mixture is moderately toxic after short term inhalation.
LD50 (rabbit)	15,433 mg/kg

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
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.
Respiratory or skin sensitization	Remarks: No data available
Serious eye damage/eye irritation	Species: rabbit Result: Mild eye irritation Remarks: No data available
Skin corrosion/irritation	Species: rabbit Result: Mild skin irritation
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.
STOT - single exposure	No data available.
Pseudocumene(95-63-6)	
Additional Information	RTECS: DC3325000 prolonged or repeated exposure can cause:, narcosis, Bronchitis., Symptoms and signs include headache, dizziness, fatigue, muscular weakness, drowsiness and in extreme cases, loss of consciousness., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Central nervous system
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.
Dermal:	No data available
Germ cell mutagenicity	in vitro assay S. typhimurium Result: negative Mutagenicity (micronucleus test) Rat - male and female - Bone marrow Result: negative
Inhalation:	No data available.
LD50 Oral - Rat - Acute toxicity	6,000 mg/kg, Rat - male.
Reproductive toxicity	No data available.
Respiratory or skin sensitization	No data available.
Serious eye damage/eye irritation	No data available.
Skin corrosion/irritation	No data available
Specific target organ toxicity - repeated exposure	No data available.
Specific target organ toxicity - single exposure	No data available.
Titanium Dioxide(13463-67-7)	
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
Sensitisation	Did not cause sensitisation on laboratory animals.
Skin irritation	slight irritation
Xylene(1330-20-7)	
Acute dermal toxicity	Acute toxicity estimate : 1,100 mg/kg Method: Expert judgement.
Acute inhalation toxicity	Acute toxicity estimate, 4631 ppm Exposure time, 4 h Test atmosphere: gas Method; Calculation method.
Acute toxicity Product	Acute oral toxicity : Acute toxicity estimate : 3,523 mg/kg Method: Calculation method.

Aspiration Toxicity	May be fatal if swallowed and enters airways.
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.
Germ cell mutagenicity	12:00:00 AM
Germ cell mutagenicity Assessment	Animal testing did not show any mutagenic effects.
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
LC50 (rat, male) Oral	3,523 mg/kg Method: EU Method B.1 (Acute Toxicity, Oral) Target Organs: Kidney, Bladder GLP: no
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.
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 foetal 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
Respiratory or skin sensitization	Remarks: No data available
Serious eye damage/eye irritation	Species: rabbit Result: Mild eye irritation
Skin corrosion/irritation	Species: rabbit Exposure time: 24 h Result: Irritating to skin Remarks: Skin irritation, Category 2
STOT - repeated exposure	Target Organs: Liver, Kidney, Central nervous system Assessment: May cause damage to organs through prolonged or repeated exposure.
STOT - single exposure	No data available.

12. ECOLOGICAL INFORMATION

2,6-DIMETHYL-4-HEPTANONE(108-83-8)	
6 Other adverse effects	No data available.
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Toxicity	No data available.
2-Ethylhexanoic acid(149-57-5)	
Bioaccumulative potential	No data available.
Mobility in soil	No data available.
Other adverse effects	No data available.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Toxicity	No data available.
Amorphous Silica(7631-86-9)	
Additional ecological information	General notes: Do not allow product to reach ground water, water course or sewage system.
Bioaccumulative potential	No further relevant information available.
EC50 - Algae	>10000 mg/l (Scenedesmus subspicatus) (72 h) (OCED 201) comparable substance
EC50 - Daphnia magna	>1000 mg/l (Daphnia magna) (24 h) (OCED 202)
LCO - Zebra fish	10000 mg/l (zebra fish) (96 h) (static) (OCED203)
Mobility in soil	No further relevant information available.
Persistence and	The product is chemically and biologically inert. By the insolubility in water there is a seperstion

degradability	at evrty filtration and sedimentation process.
Butyl Alcohol(71-36-3)	
Bioaccumulative potential	Bioaccumulation Oncorhynchus mykiss (rainbow trout) - 24 h - 921 mg/l
EC50 Daphnia magna Toxicity to Daphnia and other aquatic invertebrates	1,983 mg/l - 48 h Daphnia magna (Water Flea)
LC50 Pimephales promelas - toxicity to fish	1,840 mg/l - 96 h, Pimephales promelas (fathead minnow)
Mobility in Soil	No data available
Other adverse effects	No data available
Persistence and degradability	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
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)
Methyl Isobutyl Ketone(108-10-1)	
Deactivating Chemicals: None required.	None required.
Disposal of Packaging	Empty containers retain product residue (liquid and/or vapour) and can be dangerous. Empty drums should be completely drained, properly bunged and promptly returned to a drum reconditioner. Do not expose such containers to heat, flame, sparks, static electricity, or other sources of ignition; they may explode and cause injury or death. Do not dispose of package until thoroughly washed out.
EC50 (Daphnia Magna)	>200 mg/l (48 h)
Ecotoxicity	Low acute toxicity to aquatic organisms.
Environmental Fate	Can be dangerous if allowed to enter drinking water intakes. Do not contaminate domestic or irrigation water supplies, lakes, streams, ponds, or rivers. Methyl Isobutyl Ketone: This product is biodegradable. This product does not bioaccumulate in aquatic or terrestrial food chains.
LC50 (Fathead Minnow)	>179 mg/l (96 h)
Safe Handling of Residues	See "Waste Disposal Methods"
Waste Disposal Methods	. Reevaluation of the product may be required by the user at the time of disposal since the product uses, transformations, mixtures and processes may influence waste classification. Dispose of waste material at an approved (hazardous) waste treatment/disposal facility in accordance with applicable local, provincial and federal regulations. Do not dispose of waste with normal garbage, or to sewer systems.
Phenylethane(100-41-4)	
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.92
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
LC50 (Oncorhynchus mykiss (rainbow	4.2 mg/l Exposure time: 96 h Test Type: semi-static test

trout))	
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).
Persistence and degradability	Biodegradability : Inoculum: activated sludge Concentration: 22 mg/l Result: Readily biodegradable. Biodegradation: 70 % Exposure time: 28 d 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.
Pseudocumene(95-63-6)	
Bioaccumulative potential	No data available.
EC50 - Daphnia magna (Water flea) - Toxicity to daphnia and other aquatic invertebrates static test	3.6 mg/l - 48 h (OECD Test Guideline 202), Daphnia magna (Water flea)
LC50 - Pimephales promelas (fathead minnow) - Toxicity to fish	7.72 mg/l - 96.0 h, Pimephales promelas (fathead minnow)
Mobility in soil	No data available.
Other adverse effects	An environmental hazard cannot be excluded in the event of unprofessional handling or disposal. Toxic to aquatic life with long lasting effects.
Persistence and degradability	No data available.
Results of PBT and vPvB assessment	PBT/vPvB assessment not available as chemical safety assessment not required/not conducted
Titanium Dioxide(13463-67-7)	
LC50 fish	Fathead minnow 96 h >1000 mg/l
Xylene(1330-20-7)	
Bioaccumulative potential	Partition coefficient: noctanol/water : log Pow: 2.77 - 3.15
EC50 (Pseudokirchneriella subcapitata)	4.36 mg/l End point: Growth rate Exposure time: 73 h Test Type: static test Analytical monitoring: yes
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
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
Mobility in soil	No data available.
Persistence and degradability	Biodegradability : Inoculum: activated sludge Result: Readily biodegradable. Biodegradation: 72 % Exposure time: 20 d

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

GENERAL INFORMATION : No data available.

DISPOSAL METHOD: Dispose of waste and residues in accordance with Local, State, and Federal Regulations. Mix with compatible chemical which is less flammable and incenerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind or weld or near this container.

14. TRANSPORT INFORMATION

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

USDOT GROUND

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME (DOT) : Paint, flammable liquid

HAZARDS CLASS : 3

UN/NA NUMBER : UN1263

PACKING GROUP : PG II

EMERGENCY RESPONSE GUIDE (ERG) : 127

IATA (AIR)
DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)
PROPER SHIPPING NAME : Paint, flammable liquid
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 127

IMDG (OCEAN)
PROPER SHIPPING NAME : Paint, flammable liquid
HAZARDS CLASS : 3
UN/NA NUMBER : UN1263
PACKING GROUP : PG II
EMERGENCY RESPONSE GUIDE (ERG) : 127

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

15. REGULATORY INFORMATION

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

OSHA HAZARDS : Flammable liquid, Moderate skin irritant, Moderate eye irritant, Carcinogen.

EPCRA - Emergency
CERCLA REPORTABLE QUANTITY

This product contains:	Chemical CAS#
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 :

CLEAN AIR ACT :

This product contains:	Chemical CAS#
Phenylethane	100-41-4
Methyl Isobutyl Ketone	108-10-1

INTERNATIONAL REGULATIONS

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

Flam. Liq. 2 H226
 Eye Irrit. 2 H319
 STOT SE 3 H336

NATIONAL REGULATIONS

This product contains:	Chemical CAS#
#Phenylethane	100-41-4
#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#
*Phenylethane	100-41-4
*Methyl Isobutyl Ketone	108-10-1
#2-Ethylhexanoic acid	149-57-5

*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#
Xylene	1330-20-7
Phenylethane	100-41-4
Carbon Black	1333-86-4
Butyl Alcohol	71-36-3
2,6-DIMETHYL-4-HEPTANONE	108-83-8
Pseudocumene	95-63-6

Pennsylvania Right to Know

This product contains	Chemical CAS#
Xylene	1330-20-7
Phenylethane	100-41-4
Titanium Dioxide	13463-67-7
Carbon Black	1333-86-4
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Butyl Alcohol	71-36-3
1,10-Phenanthroline	66-71-7
2-Ethylhexanoic acid	149-57-5
2,6-DIMETHYL-4-HEPTANONE	108-83-8
Pseudocumene	95-63-6

New Jersey Right to Know

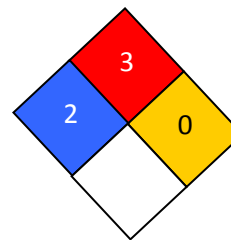
This product contains	Chemical CAS#
Xylene	1330-20-7
Phenylethane	100-41-4
Titanium Dioxide	13463-67-7
Carbon Black	1333-86-4
Amorphous Silica	7631-86-9
Aluminum Hydroxide	21645-51-2
Butyl Alcohol	71-36-3
1,10-Phenanthroline	66-71-7
2-Ethylhexanoic acid	149-57-5
2,6-DIMETHYL-4-HEPTANONE	108-83-8
Pseudocumene	95-63-6

16. OTHER INFORMATION

HMIS RATING

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

NFPA CODES



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