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

MANUFACTURER
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.
P311 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

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Weight %</th>
<th>CAS Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Xylene</td>
<td>15% - 20%</td>
<td>1330-20-7</td>
</tr>
<tr>
<td>Phenylethane</td>
<td>5% - 10%</td>
<td>100-41-4</td>
</tr>
<tr>
<td>Methyl n-Propyl Ketone</td>
<td>5% - 10%</td>
<td>107-87-9</td>
</tr>
<tr>
<td>Titanium Dioxide</td>
<td>1% - 5%</td>
<td>13463-67-7</td>
</tr>
</tbody>
</table>
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 my spread burning liquid.

FIRE FIGHTING PROCEDURE: Firefighting instructions: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering the environment. Protection during firefighting: Firefighters should wear full protective gear. Do not enter fire area without proper protective equipment, including self-contained breathing apparatus with full face piece operated in pressure demand or other positive pressure modes.


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.


### 8. EXPOSURE CONTROLS \ PERSONAL PROTECTION

<table>
<thead>
<tr>
<th>Compound</th>
<th>USA ACGIH TLV (mg/m³)</th>
<th>USA NIOSH REL (mg/m³)</th>
<th>USA OSHA STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2,6-DIMETHYL-4-HEPTANONE(108-83-8)</td>
<td>25 ppm</td>
<td>25 ppm, 150 mg/m³</td>
<td>50 ppm, 290 mg/m³</td>
</tr>
<tr>
<td>2-Ethylhexanoic acid(149-57-5)</td>
<td>5 mg/m³</td>
<td>50 ppm, 150 mg/m³</td>
<td>100 ppm, 300 mg/m³</td>
</tr>
<tr>
<td>Butyl Alcohol(71-36-3)</td>
<td>5 mg/m³</td>
<td>50 ppm, 150 mg/m³</td>
<td>100 ppm, 300 mg/m³</td>
</tr>
<tr>
<td>Carbon Black(1333-86-4)</td>
<td>3.0 mg/m³</td>
<td>3.5 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Methyl Isobutyl Ketone(108-10-1)</td>
<td>75 ppm</td>
<td>75 ppm</td>
<td></td>
</tr>
<tr>
<td>Phenylethane(100-41-4)</td>
<td>125 ppm</td>
<td>125 ppm</td>
<td>100 ppm, 435 mg/m³</td>
</tr>
<tr>
<td>Xylene(1330-20-7)</td>
<td>15 mg/m³</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Pseudocumene(95-63-6)</td>
<td>150 ppm</td>
<td>100 ppm</td>
<td></td>
</tr>
</tbody>
</table>

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
- **Color**: Various colors depending on the pigmentation.
- **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.
- **Partition coefficient: n-octanol/water**: No data available.
- **Autoignition temperature**: No data available.
- **Decomposition temperature**: No data available.

### 10. STABILITY AND REACTIVITY

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

**CHEMICAL STABILITY**: Stable under normal conditions.

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

**INCOMPATIBLE MATERIALS**: Avoid contact with strong oxidizing agents.

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

### 11. TOXICOLOGICAL INFORMATION

#### 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.
<table>
<thead>
<tr>
<th>Specific target organ toxicity - single exposure</th>
<th>No data available.</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Ethylhexanoic acid(149-57-5)</td>
<td></td>
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<td>Additional Information</td>
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</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Human lymphocyte Sister chromatid exchange</td>
</tr>
<tr>
<td>Inhalation</td>
<td>No data available.</td>
</tr>
<tr>
<td>LD50 Dermal - Rabbit</td>
<td>1,142 mg/kg, Dermal, Rabbit</td>
</tr>
<tr>
<td>LD50 Oral - Rat - Acute toxicity</td>
<td>3,000 mg/kg, Oral, Rat</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>No data available.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>Eyes - rabbit Result: Severe eye irritation</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>No data available.</td>
</tr>
<tr>
<td>Specific target organ toxicity - repeated exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Specific target organ toxicity - single exposure</td>
<td>No data available.</td>
</tr>
<tr>
<td>Amorphous Silica(7631-86-9)</td>
<td>The product is not subject to classification according ot internally approved calculation methods for preparations: When used and handled according tp specifications, the product does not have any harmful effects according to our experience and information provided to us.</td>
</tr>
<tr>
<td>Additional toxicological information</td>
<td>Irritant of skin Not irritating (rabbit) (OCED 404)</td>
</tr>
<tr>
<td></td>
<td>Irritant of eyes Not irritating (rabbit) (OCED 405)</td>
</tr>
<tr>
<td></td>
<td>LC50 - Inhalative &gt;140-&gt;2000 mg/m3 / 4 h (Rat) (OCED 403)</td>
</tr>
<tr>
<td></td>
<td>LD50 - Dermal - Rabbit &gt;5000 mg/kg (Rabbit)</td>
</tr>
<tr>
<td></td>
<td>LD50 - Oral - Rat &gt;5000 mg/kg (Rat) (OECD 401)</td>
</tr>
<tr>
<td></td>
<td>Other information - Oral =&gt; 1340 mg/kg/day</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Not sensitizating (guinea pig) (OCED 406)</td>
</tr>
<tr>
<td>Butyl Alcohol(71-36-3)</td>
<td>The product is not subject to classification according ot internally approved calculation methods for preparations: When used and handled according tp specifications, the product does not have any harmful effects according to our experience and information provided to us.</td>
</tr>
<tr>
<td>Additional Information</td>
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<td></td>
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<tr>
<td></td>
<td>Other information - Oral =&gt; 1340 mg/kg/day</td>
</tr>
<tr>
<td>Sensitization</td>
<td>Not sensitizating (guinea pig) (OCED 406)</td>
</tr>
</tbody>
</table>
### Carbon Black (1333-86-4)

**ACGIH**  
The American Conference of Governmental Industrial Hygienists classifies carbon black as A4, Not Classifiable as a Human Carcinogen.

**Carcinogenicity Classification**  
GHS: Not a hazardous substance or preparation according to the Global Harmonized System (GHS).

### Human Epidemiology

Results of epidemiological studies of carbon black production workers suggest that cumulative exposure to carbon black may result in small decrements in lung function, as measured by FEV1. A recent U.S. respiratory morbidity study suggested a 27 mL decline in FEV1 from a 1 mg/m3 (inhaled fraction) exposure over a 40-year period. An older European investigation suggested an exposure to 1 mg/m3 (inhaled 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.

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.

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/m³ for PAHs in air, measured as the cyclohexane-extractable fraction.

NTP

NTP Carbon black is not designated a carcinogen by the U.S. National Toxicology Program (NTP), the U.S. Occupational Safety and Health Administration (OSHA) or the European Union (EU).

Reproductive and Teratogenic Effects

No experimental studies on effects of carbon black on fertility and reproduction have been located. However, based on toxicokinetic data, carbon black is deposited in the lungs and based on its specific physicochemical properties (insolubility, low absorption potential), it is not likely to distribute in the body to reach reproductive organs, embryo and/or 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" 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

Table: 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".

Phenylenethane(100-41-4)

Aspiration toxicity

May be fatal if swallowed and enters airways.

Carcinogenicity


Germ cell mutagenicity


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.

### 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

**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 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

In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50, 250 mg/m3 of respirable Ti02.

### Dermal ALD (rabbit)

>10000 mg/m3

### Eye irritation

slight irritation

### Inhalation 4 h ALC

>6.82 mg/l

### ORAL ALD (rat)

>2400 mg/kg

### Sensitisation

Did not cause sensitisation on laboratory animals.

### Skin irritation

slight irritation

### Xylene

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


Germ cell mutagenicity

Assessment 12:00:00 AM

Germ cell mutagenicity

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 data available Assessment: The substance or mixture is classified as specific target organ toxicant, repeated exposure, category 2.

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.

Persistance and The product is chemically and biologically inert. By the insolubility in water there is a seperstion
| Chemical                           | Degradability at every filtration and sedimentation process. | Bioaccumulative potential | EC50 Daphnia magna Toxicity to Daphnia magna and other aquatic invertebrates | LC50 Pimephales promelas - toxicity to fish | Mobility in Soil | Other adverse effects | Persistence and degradability | Result of PBT and vPvB assessment not required/not conducted | Carbon Black (1333-86-4) | Behavior in water treatment plants | Bioaccumulation Potential | EC50 (Scenedesmus subspicatus) | EC50 Daphnia magna (waterflea) | Environmental fate | LC50 Brachydanio reio (zebrafish) | NOEC 50 (Scenedesmus subspicatus) | Methyl Isobutyl Ketone (108-10-1) | Deactivating Chemicals: None required. | Disposal of Packaging | Safe Handling of Residues | Waste Disposal Methods | Phenylethane (100-41-4) | Bioaccumulative potential | EC50 (Daphnia magna (Water flea)) | EC50 (Pseudokirchneriella subcapitata) | LC50 (Oncorhynchus mykiss (rainbow)) |
|-----------------------------------|---------------------------------------------------------------|---------------------------|----------------------------------------------------------------------------|---------------------------------------------|----------------|----------------------|-----------------------------|-----------------------------------------------------------------|-------------------------|--------------------------------------|-----------------------------|--------------------------------|-----------------------------|--------------------------------|----------------------------------|--------------------------------|------------------------------------------|---------------------------------|---------------------------------|----------------------------------|---------------------------|-----------------------------|--------------------------------|--------------------------------|---------------------------------|
| Butyl Alcohol (71-36-3)           |                                                               |                           | 1,983 mg/l - 48 h Daphnia magna (Water Flea)                               | 1,840 mg/l - 96 h, Pimephales promelas (fathead minnow)                      | No data available | No data available | No data available | PBT/vPvB assessment not available as chemical safety assessment not required/not conducted | Butyl Alcohol (71-36-3) | Activated sludge, EC0 (3 h) > 800 mg/L, DEV L3 (TTC test) | Potential bioaccumulation is not expected because of the physicochemical properties of the substance | > 10,000 mg/L, OECD (Guideline 201) | >5600 mg/l (24 h) OECD (Guideline 202) | 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. | >1000 mg/l (96 h) OECD (Guideline 203) | >10,000 mg/L, OECD (Guideline 201) | None required. | 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. | None required. | Environmental Fate | Safe Handling of Residues | Waste Disposal Methods | Bioaccumulative potential | 1.8 mg/l Exposure time: 48 h Test Type: static test | 5.4 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Static GLP: yes | 4.2 mg/l Exposure time: 96 h Test Type: semi-static test | Bioaccumulative Oncorhynchus mykiss (rainbow) - 24 h - 921 mg/l | Bioaccumulation Oncorhynchus mykiss (rainbow) - 24 h - 921 mg/l | 2.9 | 1.8 mg/l Exposure time: 48 h Test Type: static test | 5.4 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Static GLP: yes | 4.2 mg/l Exposure time: 96 h Test Type: semi-static test | Partition coefficient: n-octanol/water : log Pow: 2.92 | 1.8 mg/l Exposure time: 48 h Test Type: static test | 5.4 mg/l Exposure time: 72 h Test Type: static test Analytical monitoring: yes Method: Static GLP: yes | 4.2 mg/l Exposure time: 96 h Test Type: semi-static test |

Page 10 of 14
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).
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.

Titanium Dioxide(13463-67-7)
LC50 fish | Fathead minnow 96 h >1000 mg/l
Xylene(1330-20-7)
Bioaccumulative potential | Partition coefficient: n-octanol/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
LC50 (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.
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

13. DISPOSAL CONSIDERATIONS
WASTE TREATMENT METHODS

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

14. TRANSPORT INFORMATION

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

USDOT GROUND DOT (DEPARTMENT OF TRANSPORTATION)
PROPER SHIPPING NAME (DOT) : Paint, 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

<table>
<thead>
<tr>
<th>This product contains:</th>
<th>Chemical CAS#</th>
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<tbody>
<tr>
<td>Xylene</td>
<td>1330-20-7</td>
</tr>
<tr>
<td>Phenylethane</td>
<td>100-41-4</td>
</tr>
<tr>
<td>Carbon Black</td>
<td>1333-86-4</td>
</tr>
</tbody>
</table>

SARA 304 Extremely Hazardous Substances Reportable Quantity : This material does not contain any components with a section 304 EHS RQ.
SARA TITLE III (SUPERFUND AMENDMENRS AND REAUTHORIZATION ACT)
SARA 311/312 Hazards : Fire Hazard, Acute Health Hazard, Chronic Health Hazard
SARA 313 :

CLEAN AIR ACT :

<table>
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<td>Methyl Isobutyl Ketone</td>
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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

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# Indicates a chemical listed by IARC as a possible carcinogen.
**STATE REGULATIONS**  
**CALIFORNIA PROPOSITION 65**

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<tr>
<td>#2-Ethylhexanoic acid</td>
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*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

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<td>71-36-3</td>
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<td>Amorphous Silica</td>
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<tr>
<td>Aluminum Hydroxide</td>
<td>21645-51-2</td>
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<tr>
<td>Butyl Alcohol</td>
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<tr>
<td>1,10-Phenanthroline</td>
<td>66-71-7</td>
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16. OTHER INFORMATION

**HMIS RATING**

<table>
<thead>
<tr>
<th>Category</th>
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<tbody>
<tr>
<td>Health</td>
<td>2*</td>
</tr>
<tr>
<td>Flammability</td>
<td>3</td>
</tr>
<tr>
<td>Reactivity</td>
<td>0</td>
</tr>
<tr>
<td>Personal Protection</td>
<td>3</td>
</tr>
</tbody>
</table>

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