

SAFETY DATA SHEET



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| DATE ISSUED : | 8/10/2018 |
| SDS REF. No : | 6779-CLE20902 |

6779-CLE20902 CLEAR GLOSS SEALER/FILLER BASECOAT POLYURETHANE

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: 6779-CLE20902 CLEAR GLOSS SEALER/FILLER BASECOAT POLYURETHANE

PRODUCT CODE: 6779-CLE20902
PRODUCT USE: Industrial Solventborne Paint

MANUFACTURER
Cardinal Industrial Finishes
1329 Potrero Ave

S. El Monte, CA,
626 444-9274

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

2. HAZARDS IDENTIFICATION

PICTOGRAMS



SIGNAL WORD : DANGER

HAZARD STATEMENTS :

H226 Flammable liquid and vapor.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H360 May damage fertility or unborn child.
H402 Harmful to aquatic life.

PRECAUTIONARY STATEMENTS :

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | Weight % | CAS Number |
|-----------------|-----------|------------|
| n-Butyl Acetate | 30% - 35% | 123-86-4 |

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|---------------------|-----------|----------|--|
| Methyl Ethyl Ketone | 10% - 15% | 78-93-3 | |
| P.M. Acetate | 10% - 15% | 108-65-6 | |
| Ethyl Acetate 99% | 5% - 10% | 141-78-6 | |
| Isopropyl Alcohol | 1% - 5% | 67-63-0 | |

4. FIRST AID MEASURES

Description of first aid measures.

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

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

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

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

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

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

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

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

Indication of any immediate medical attention and special treatment needed.

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

5. FIRE FIGHTING MEASURES

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

| | | |
|--------------------------------------|-----------------------|------------------------|
| Dibutyltin Dilaurate(77-58-7) | | |
| USA ACGIH | ACGIH STEL | 0.2 mg/m3 |
| USA ACGIH | ACGIH TWA | 0.1 mg/m3 |
| USA NIOSH | NIOSH REL | 0.1 mg/m3 |
| USA OSHA | OSHA PEL (Table Z-1) | 0.1 mg/m3 |
| USA OSHA | OSHA TWA (Table Z-1A) | 0.1 mg/m3 |
| Ethyl Acetate 99%(141-78-6) | | |
| USA ACGIH | ACGIH (TWA) | 400 ppm |
| USA OSHA | OSHA Table Z-1 (PEL) | 400 ppm, 1,400 mg/m3 |
| Ethyl Alcohol(64-17-5) | | |
| USA ACGIH | ACGIH TWA (TLV) | 1,000 ppm |
| USA NIOSH | NIOSH TWA | 1,000 ppm, 1,900 mg/m3 |
| USA OSHA | OSHA TWA (Table Z-1) | 1,000 ppm, 1,900 mg/m3 |
| Isobutyl Alcohol(78-83-1) | | |
| USA ACGIH | ACGIH TWA | 50 ppm |
| USA OSHA | OSHA PEL | 100 ppm, 300 mg/m3 |
| Isopropyl Alcohol(67-63-0) | | |
| USA ACGIH | ACGIH STEL | 400 ppm |
| USA ACGIH | ACGIH TWA | 200 ppm |
| USA NIOSH | NIOSH IDLH | 2,000 ppm |
| USA OSHA | OSHA TWA | 400 ppm, 980 mg/m3 |
| Methyl Ethyl Ketone(78-93-3) | | |
| USA ACGIH | ACGIH STEL (ppm) | 300 ppm |
| USA ACGIH | ACGIH TWA (ppm) | 200 ppm |
| USA OSHA | OSHA PEL (STEL) (ppm) | 100 ppm |
| USA OSHA | OSHA PEL TWA (mg/m3) | 410 mg/m3 |
| n-Butyl Acetate(123-86-4) | | |
| USA ACGIH | ACGIH STEL | 200 ppm |
| USA ACGIH | ACGIH TWA | 150 ppm |
| USA OSHA | OSHA PEL (Table Z-1) | 150 ppm, 710 mg/m3 |
| P.M. Acetate(108-65-6) | | |
| USA AIHA | AIHA (WEEL) TWA | 50 ppm |

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

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| 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 | : | 171.0 deg F TO 294.0 deg F |
| Flash point | : | 24.00 deg F |
| Lower explosion limit | : | 1.5 |
| Upper explosion limit | : | 12.8 |
| Vapor pressure | : | 185 mm Hg |
| Vapor density | : | Heavier than air |
| Relative density | : | No data available. |
| Density | : | 7.9628 |
| Solubility | : | BP_VD |
| 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

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|---------------------------------------|---|
| Dibutyltin Dilaurate(77-58-7) | |
| Chronic Health Hazard | Dibutyltin compounds have shown reproductive and immunotoxic effects in laboratory animals. Abnormalities noted at necropsy of animals treated with 2000 mg/kg of dibutyltin dilaurate were hemorrhagic lungs, dark liver, dark kidneys, hemorrhage of gastric mucosa, hemorrhage of the large and small intestines, enlarged bile duct and behavioral and central nervous system effects. Decreased fertility was seen in hens following dietary administration equal to 78 mg/kg. |
| Eye irritation/corrosion | Severe eye irritation. |
| Inhalation | No data is available on the product itself. |
| LD50 - Rabbit (Dermal) | > 2,000 mg/kg, Method : Estimated. |
| LD50 - Rat (Ingestion) | > 2,000 mg/kg |
| Skin irritation/corrosion | Severe skin irritation. Corrosive to the skin of a rabbit. |
| Ethyl Acetate 99%(141-78-6) | |
| Carcinogenicity | mouse, Male/Female, Intraperitoneal, 8 weeks, Did not show carcinogenic effects in animal experiments. |
| Developmental Toxicity/Teratogenicity | rat, female, Inhalative, gestation days 1-19, 7 hrs/day, NOAEL (teratogenicity): 2,000 ppm, NOAEL (material): 16,000 ppm. Studies of a comparable product. |
| Eye irritation | Human, irritating |
| LC0 Inhalation (Rat) | 29.3 mg/l (4 h) |
| LC50 Inhalation (Rat) | 200 mg/l (1 h) |
| LD50 Dermal (Rabbit) | >18,000 mg/kg |
| LD50 Oral (Rat) | 5,620 mg/kg |
| Mutagenicity | Genetic Toxicity in Vitro: Ames: positive, negative (Salmonella typhimurium, Metabolic Activation: with/without) Positive and negative results were seen in various in vitro studies. |

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| | Questionable validity of studies due to rapid hydrolysis in solvents. Genetic Toxicity in Vivo: Micronucleus Assay: negative (rat,) Unscheduled DNA synthesis: negative (rat,) |
| Other Relevant Toxicity Information | May cause downiness or dizziness. May cause irritation of respiratory tract. |
| Repeated dose toxicity | 90 days, inhalation: NOAEL: 0.002 mg/l, (Rat). 11 weeks, inhalation: NOAEL: 2,000 ppm, (Guinea pig). Chronic exposure damages the brain and central nervous system. 13 w, Oral: NOAEL: 900 mg/kg, LOAEL: 3,600 mg/kg, (rat, male/female, daily). 94 days, inhalation: NOAEL: 350 ppm, LOAEL: 750 ppm, (Rat, male/female, 6 hrs/day 5 days/week). |
| Sensitization | dermal: non-sensitizer (Guinea pig, Magnusson/Kligmann (Maximization Test)). Skin sensitization according to Magnusson/Kligmann (maximization test): negative (guinea pig, OECD Test Guideline 406). |
| Skin irritation | rabbit, Non irritating |
| Ethyl Alcohol(64-17-5) | |
| Additional Information | RTECS: KQ6300000 Central nervous system depression, narcosis, Damage to the heart., To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated. Heart - Irregularities - Based on Human Evidence Stomach - Irregularities - Based on Human Evidence |
| Aspiration hazard | No data available. |
| Carcinogenicity - Mouse - Oral | Tumorigenic: Equivocal tumorigenic agent by RTECS criteria. Liver: Tumors. Blood: Lymphomas including Hodgkin's disease. IARC: No components of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC. NTP: No components 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 components 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. |
| LC50 Inhalation - Rat | 20000 ppm, (10 h) |
| LD50 Oral - Rat | 7,060 mg/kg , Remarks: Lungs, Thorax, or Respiration: Other changes. |
| Reproductive toxicity | No data available. Reproductive toxicity - Human - female - Oral Effects on Newborn: Apgar score (human only). Effects on Newborn: Other neonatal measures or effects. Effects on Newborn: Drug dependence. |
| Respiratory or skin sensitization | No data available. |
| Serious eye damage/eye irritation Eyes Rabbit | Result: Mild eye irritation - 24 h (OECD Test Guideline 405) |
| Skin corrosion/irritation Skin - Rabbit | Result: No skin irritation - 24 h (OECD Test Guideline 404) |
| Specific target organ toxicity - repeated exposure | No data available. |
| Specific target organ toxicity - single exposure | No data available. |
| Isobutyl Alcohol(78-83-1) | |
| Carcinogenicity Data: | The ingredient(s) of this product is (are) not classified as carcinogenic by ACGIH, IARC, OSHA or NTP. |
| LC50 Inhalation - Rat | 8000 ppm; (4 h) |
| LD50 Dermal - Rabbit | 3400 mg/kg |
| LD50 Oral - Rat (Acute Toxicity) | 2460 mg/kg |
| Mutagenicity Data: | No adverse mutagenicity effects are anticipated. |
| Reproductive Data: | No adverse reproductive effects are anticipated. |
| Respiratory / Skin Sensitization Data: | None known. |
| Synergistic Materials: | Alcohols may interact synergistically with chlorinated solvents (example - carbon tetrachloride, chloroform, bromotrichloromethane), dithiocarbamates (example - disulfiram), dimethylnitrosamine and thioacetamide. |
| Tetragenicity Data: | No adverse Tetragenicity effects are anticipated. |
| Isopropyl Alcohol(67-63-0) | |
| Aspiration hazard | Based on physico-chemical values or lack of human evidence, not classified. |
| Carcinogenicity | Not classified. |
| Effects on Development | Not classified. |
| Germ cell mutagenicity | Not classified No adverse effect observed. |
| LC50 (Rat) | 46.6 mg/l; Exposure time: 8 h, Acute inhalation toxicity: Based on acute toxicity values, not classified. High vapor concentrations may cause irritation of the eyes, nose, and/or throat, |

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| | changes to the liver, lung, spleen, and brain, and central nervous system depression (ataxia, dizziness, narcosis, and muscle relaxation, with respiratory arrest and death in cases of severe over exposure). |
| LD50 (Rabbit) | 12,870 mg/kg |
| LD50 (Rat) | 4,396 mg/kg; Acute oral toxicity: Based on acute toxicity values, not classified. Ingestion may cause gastrointestinal effects (pain, nausea, vomiting, and hemorrhage), hypothermia, cardiac effects (low blood pressure, shock and cardiac arrest), liver changes, kidney damage, and CNS effects (headache, dizziness, sleepiness, coma and death). |
| Reproductive toxicity | Effects on fertility / Effects on or via lactation: Not classified. |
| Respiratory or skin sensitization | Not classified No adverse effect observed. |
| Serious eye damage/eye irritation | Classified Causes serious eye irritation. |
| Skin corrosion/irritation | Based on skin irritation values, not classified. Liquid may cause slight skin irritation. Exposure of liquid to the underdeveloped skin of premature infants may cause severe irritation. |
| Target Organ Systemic Toxicant - Repeated exposure | Based on repeated exposure toxicity values, not classified. |
| Target Organ Systemic Toxicant - Single exposure | Routes of exposure: Ingestion, Inhalation Target Organs: Central nervous system Classified, May cause drowsiness or dizziness. |
| Methyl Ethyl Ketone(78-93-3) | |
| Aspiration toxicity | Product: May be harmful if swallowed and enters airways. |
| Carcinogenicity | Remarks: This information is not available, Carcinogenicity-Assement: Not classified as a human carcinogen. |
| Further information | Product Remarks: Symptoms of overexposure may be headache, dizziness, tiredness, nausea and vomiting., |
| Germ cell mutagenicity | Genotoxicity in vitro: Test Type: Ames test, Metabolic activation: with and without metabolic activation, Method OECD Test Guideline 471 |
| LC50 (mouse) inhalation | 320 mg/l (4 h exposure) |
| LC50 (rat) Oral | 3737 mg/kg |
| LD50 (rabbit) dermal | 6,480 mg/kg |
| Reproductive toxicity | Effects on fetal development, Species: rat female, Application Route: Inhalation, Dose: 400, 1000, 3000 ppm, |
| Respiratory or skin sensitisation | Test Type: Buehler Test, Species guinea pig, Method OECD Test Guideline 406, Result: Did not cause sensitization on laboratory animals. |
| Serious eye damage/eye irritation | Remarks: Severe skin irritation, Species rabbit, Exposure time 24 h, Result: Irritation to eyes |
| Skin corrosion/irritation | Remarks: Moderate skin irritation, Species rabbit, Exposure time 24 h, Result: Mild skin irritation |
| STOT - repeated exposure | Product: No data available, Components: No data available. |
| STOT - single exposure | Product: Target Organs: Central Nervous system, Components: Exposure routes: Inhalation, Product: Target Organs: Central Nervous system |
| n-Butyl Acetate(123-86-4) | |
| Aspiration hazard | No data available. |
| Carcinogenicity | No data available. |
| Inhalation | No data available. |
| LD-50 Dermal - (Rabbit) | > 16ml/kg |
| LD-50 Oral - (Rat) | 14,130 mg/kg |
| Mutagenicity | In vitro: No data available. In vivo: No data available. |
| Other adverse effects: | No data available. |
| Repeated dose toxicity | No data available. |
| Reproductive toxicity | No data available. |
| Respiratory or skin sensitization | Skin Sensitization:, (Guinea Pig) - non-sensitizing. |
| Serious eye damage/eye irritation | (Rabbit, 24 h): none |
| Skin corrosion/irritation | (Rabbit, 24 h): none |
| Specific target organ toxicity - repeated exposure | No data available. |
| Specific target organ toxicity - single exposure | Narcotic effect. |
| P.M. Acetate(108-65-6) | |

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| Aspiration hazard | No data available. |
| Carcinogenicity | No data available. |
| LC50 - Inhalation Rat | >4345 ppm (Rat, 6 h) |
| LD50 - Dermal - Rabbit | >5000 mg/kg |
| LD50 - Oral - Rat | 6,190 mg/kg |
| Mutagenicity | In vitro: No data available. In vivo: No data available. |
| Other adverse effects | No data available. |
| Repeated dose toxicity | No data available. |
| Reproductive toxicity. | No data available. |
| Respiratory or skin sensitization | Skin Sensitization:, (Guinea Pig) - non-sensitizing |
| Serious eye damage/eye irritation | (Rabbit): very slight |
| Skin corrosion/irritation | Specified substance(s) 2-methoxy-1-methylethyl acetate (Rabbit, 4 h): none (Rabbit, 24 h): none. |
| Specific target organ toxicity - repeated exposure | No data available. |
| Specific target organ toxicity - single exposure | No data available. |

12. ECOLOGICAL INFORMATION

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| Dibutyltin Dilaurate(77-58-7) | |
| Aquatic toxicity | No data is available on the product itself. |
| Bioaccumulation | No data is available on the product itself. |
| EC50 - Daphnia | 2.28 mg/l, Species : Daphnia magna. |
| LC50 - Fish | 2 mg/l, Species : Fish. |
| Mobility | No data available. |
| Persistence and degradability | Biodegradability : No data is available on the product itself. |
| Toxicity to other organisms | No data available. |
| Ethyl Acetate 99%(141-78-6) | |
| Bioaccumulation | Leuciscus idus (Golden orfe), Exposure time: 3 Days, 30 BCF |
| Biochemical Oxygen Demand (BOD) | 293 mg/g |
| Biodegradation | Aerobic, 100 %, Exposure time: 28 Days |
| Chemical Oxygen Demand (COD) | 1,816 mg/g |
| EC0 | 650 mg/l, (Pseudomonas putida, 16 h) |
| EC50 | Approximately 3,090 mg/l (Water flea (Daphnia magna), 48 h) |
| EC50 Acute Toxicity to Aquatic Invertebrates | 717 mg/l (Water flea (Daphnia magna), 48 h) |
| EC50 Toxicity to Aquatic Plants | 2,000 mg/l, (Green algae (Selenastrum capricornutum), 96 h), 3,300 mg/l, End Point: biomass (Green algae (Scenedesmus subspicatus), 48 h). |
| EC50 Toxicity to Microorganisms | 5,870 mg/l, (Photobacterium phosphoreum, 15 min) |
| LC50 | 230 mg/l (Fathead minnow (Pimephales promelas), 96 h) |
| LC50 | 484 mg/l (Rainbow (Donaldson)Trout (Oncorhynchus mykiss), 96 h) |
| LC50 Acute and Prolonged Toxicity to Fish | 270 - 333 mg/l (Golden orfe (Leuciscus idus), 96 h) |
| Theoretical Biological Oxygen Demand (ThBOD) | 1,820 mg/g |
| Ethyl Alcohol(64-17-5) | |
| 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. |
| Isobutyl Alcohol(78-83-1) | |

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| Chronic | No data available. |
| Degradability / Persistence; Biological / A biological Degradation | Evaluation: Not readily biodegradable (by OECD criteria). |
| EC50 - Aquatic Plants | >100 mg/l (72 h) The product has not been tested. The statement has been derived from properties of the individual components. |
| EC50 - Daphnia - Acute | >100 mg/l (48 h) The product has not been tested. The statement has been derived from properties of the individual components. |
| LC50 - Fish - Acute | >100 mg/l (96 h) The product has not been tested. The statement has been derived from properties of the individual components. |
| Microorganisms | Toxicity to microorganisms: bacteria EC10 (17 h): >750 mg/l. The product has not been tested. The statement has been derived from properties of the individual components. |
| Isopropyl Alcohol(67-63-0) | |
| Bioaccumulative potential | Bioaccumulation : Bioconcentration factor (BCF): 3.16 this material is not expected to bioaccumulate. |
| Ecotoxicology Assessment | Acute aquatic toxicity: Based on acute aquatic toxicity values, not classified. Chronic aquatic toxicity: Not classified, based on readily biodegradability and low acute toxicity. |
| Mobility in soil | Distribution among environmental compartments: Stability in water initially partitioning mainly to water and air. Stability in soil Volatilization from water or soil surfaces is expected to be limited. Additional advice Environmental fate and pathways : No additional information available. |
| Other adverse effects Additional ecological information | No additional information available. |
| Persistence and degradability | Biodegradability : 86 - 94 % Rapidly degradable. (After two weeks in a ready biodegradability test) |
| Results of PBT and vPvB assessment | Not applicable. |
| Toxicity to algae | Acute toxicity to aquatic plants very low. |
| Toxicity to bacteria | Low toxicity to sewage microbes. |
| Toxicity to daphnia and other aquatic invertebrates | Acute toxicity to freshwater and marine invertebrates is very low. |
| Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity) | Chronic toxicity expected to be low. |
| Toxicity to fish | Acute toxicity to fish is very low. |
| Toxicity to fish (Chronic toxicity) | Chronic toxicity to fish is expected to be low. |
| Methyl Ethyl Ketone(78-93-3) | |
| Bioaccumulative potential | Partition coefficient: n-octanol/water: log Pow: 2.49 |
| EC50 (Algae) | 2029 mg/l (48 h; Pseudokirchneriella subcapitata (Green Algae)) |
| EC50 (Daphnia) | 308 mg/l (48 h; Daphnia magna (Water flea)) |
| LC50 (fish) | 2993 mg/l (96 h; Pimephales promelas (Fathead minnow)) |
| Mobility in soil | No data available |
| Other adverse effects | No data available |
| Persistence and degradability | Biodegradability: Concentration: 2mg/l; Result: Readily biodegradation: 98%; Exposure 28 d; |
| Product | Regulation: 40CFR Protection of Environment, Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class 1 Substances: |
| n-Butyl Acetate(123-86-4) | |
| Bioaccumulative potential | No data available. |
| Chronic Toxicity | Fish: No data available. Aquatic invertebrates: No data available. Toxicity to Aquatic Plants: No data available. |
| LC-50 (Fathead Minnow) Acute Toxicity | 18 mg/l, (96 h) |
| LC-50 (Water Flea) Aquatic invertebrates | 44 mg/l , (48 h) |
| Mobility in soil | Known or predicted distribution to environmental compartments: No data available. |
| Other adverse effects | No data available. |
| Persistence and degradability | 83 % (28 d), Biological Oxygen Demand:BOD-5: 730 mg/g, Chemical Oxygen Demand:1,010 mg/g, BOD/COD ratio:72 %. |
| Results of PBT and vPvB assessment | No data available. |
| P.M. Acetate(108-65-6) | |

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| Aquatic invertebrates | NOEC (daphnia, 21 d): ≥ 100 mg/l EC-50 (daphnia, 21 d): > 100 mg/l |
| Bioaccumulative potential | No data available. |
| Biological Oxygen Demand | 363 mg/g 1,050 mg/g |
| Chemical Oxygen Demand | No data available. |
| Chronic Toxicity Fish | LC-50 (Oryzias latipes, 14 d): 63.5 mg/l NOEC (Oryzias latipes, 14 d): 47.5 mg/l |
| LC50 - Daphnoid - Aquatic invertebrates | 408 mg/l (48 h) |
| LC50 - Fathead Minnow - Toxicity to Fish | 161 mg/l (96 h) |
| Mobility in soil | No data available. |
| Other adverse effects | No data available. |
| Persistence and degradability | Biodegradation - 90 % (28 d, Ready Biodegradability: CO2 Evolution Test) Readily biodegradable |
| Results of PBT and vPvB assessment | No data available. |
| Toxicity to Aquatic Plants | EC-50 (Selenastrum capricornutum, 96 h): $> 1,000$ mg/l NOEC (Selenastrum capricornutum, 96 h): $\geq 1,000$ mg/l |

13. DISPOSAL CONSIDERATIONS

WASTE TREATMENT METHODS

GENERAL INFORMATION : No data available.

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

14. TRANSPORT INFORMATION

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

USDOT GROUND

DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME (DOT) : Paint

HAZARDS CLASS : 3

UN/NA NUMBER : UN1263

PACKING GROUP : PG II

EMERGENCY RESPONSE GUIDE (ERG) : 128

IATA (AIR)

DOT (INTERNATIONAL AIR TRANSPORTATION ASSOCIATION)

PROPER SHIPPING NAME : Paint

HAZARDS CLASS : 3

UN/NA NUMBER : UN1263

PACKING GROUP : PG II

EMERGENCY RESPONSE GUIDE (ERG) : 128

IMDG (OCEAN)

PROPER SHIPPING NAME : Paint

HAZARDS CLASS : 3

UN/NA NUMBER : UN1263

PACKING GROUP : PG II

EMERGENCY RESPONSE GUIDE (ERG) : 128

MARINE POLLUTANT : No

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

15. REGULATORY INFORMATION

US FEDERAL REGULATIONS

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

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

EPCRA - Emergency

CERCLA REPORTABLE QUANTITY

| This product contains: | Chemical CAS# |
|-------------------------------|----------------------|
| n-Butyl Acetate | 123-86-4 |
| Methyl Ethyl Ketone | 78-93-3 |
| Ethyl Acetate 99% | 141-78-6 |
| Isobutyl Alcohol | 78-83-1 |
| Ethyl Alcohol | 64-17-5 |

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# |
|-------------------------------|----------------------|
| n-Butyl Acetate | 123-86-4 |
| Methyl Ethyl Ketone | 78-93-3 |
| P.M. Acetate | 108-65-6 |
| n-Butyl Acetate | 123-86-4 |
| Ethyl Acetate 99% | 141-78-6 |
| Isopropyl Alcohol | 67-63-0 |

CLEAN AIR ACT :

INTERNATIONAL REGULATIONS

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

Skin Sens. Cat. 1; H317
Eye Irrit. Cat.2; H319
STOT SE Cat. 3; H336
Reprod. Tox. Cat 1B; H360
Acute Tox. Cat. 3; H402

NATIONAL REGULATIONS

Indicates a chemical listed by IARC as a possible carcinogen.

STATE REGULATIONS

CALIFORNIA PROPOSITION 65

*This product contains (a) chemical (s) known to the State of California to cause cancer.

#This product contains (a) chemical (s) known to the State of California to be carcinogenic.

+This product contains (a) chemical (s) known to the State of California to cause birth defects or other reproductive harm.

Massachusetts Right to Know

| This product contains | Chemical CAS# |
|------------------------------|----------------------|
| n-Butyl Acetate | 123-86-4 |
| Methyl Ethyl Ketone | 78-93-3 |
| Isobutyl Alcohol | 78-83-1 |
| Acetylacetone | 123-54-6 |

Pennsylvania Right to Know

| This product contains | Chemical CAS# |
|-----------------------|---------------|
| n-Butyl Acetate | 123-86-4 |
| Methyl Ethyl Ketone | 78-93-3 |
| P.M. Acetate | 108-65-6 |
| Isobutyl Alcohol | 78-83-1 |
| Acetylacetone | 123-54-6 |
| Dibutyltin Dilaurate | 77-58-7 |
| Ethyl Alcohol | 64-17-5 |

New Jersey Right to Know

| This product contains | Chemical CAS# |
|-----------------------|---------------|
| n-Butyl Acetate | 123-86-4 |
| Methyl Ethyl Ketone | 78-93-3 |
| P.M. Acetate | 108-65-6 |
| Ethyl Acetate 99% | 141-78-6 |
| Isobutyl Alcohol | 78-83-1 |
| Acetylacetone | 123-54-6 |
| Dibutyltin Dilaurate | 77-58-7 |
| Ethyl Alcohol | 64-17-5 |

16. OTHER INFORMATION

Other Product Information

% Volatile by Volume: 79.11
% Solids by volume: 20.89
% Exempt by Volume: 0.00

% Volatile by Weight: 72.94
% Solids by Weight: 27.06
% Exempt by Weight: 0.11

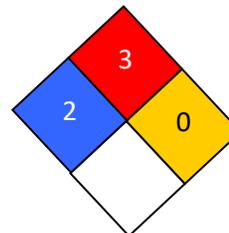
VOC CONTENT:

Excluding Exempt VOC: 695
Including Exempt VOC: 695

HMIS RATING

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

NFPA CODES



MANUFACTURER DISCLAIMER : The information contained in this Safety Data Sheet is considered to be true and accurate. Cardinal Industrial Finishes makes no warranties, expressed or implied, as to the accuracy and adequacy of this information. This data is offered solely for the user's consideration, investigation and verification.