

Aseal 610 Light Blue

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Aseal 610 Light Blue
Common Name: Dissolved metal complex/inorganic pigment compound
SDS Number: A53
Revision Date: 5/28/2015
Version: 1
Chemical Family: Alkali Metal Silicate
Product Description: Water Base Inorganic Coating
Product Use: Air dry touch up for Aseal
Supplier Details: Coatings for Industry, Inc.
 319 Township Line Road
 Souderton, PA 18964

Emergency: Infotrac
Contact: USA: 1-800-535-5053 / International :352-323-3500
Phone: 215-723-0919
Fax: 215-723-0911
Email: cs@cficoatings.com
Web: www.cficoatings.com

2 HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS):
 no GHS classifications indicated

GHS Label elements, including precautionary statements

GHS Signal Word: NONE

no GHS pictograms indicated for this product

GHS Hazard Statements:

no GHS hazards statements indicated

GHS Precautionary Statements:

P201 - Obtain special instructions before use.
 P233 - Keep container tightly closed.
 P262 - Do not get in eyes, on skin, or on clothing.
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P353 - Rinse skin with water/shower.
 P362 - Take off contaminated clothing and wash before reuse.
 P404 - Store in a closed container.

3 COMPOSITION/INFORMATION OF INGREDIENTS

Ingredients:

| Cas# | % | Chemical Name |
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| 7732-18-5 | 40-80% | Water |
| 1312-76-1 | 5-15% | Silicic acid, potassium salt |
| 1345-16-0 | 10-15% | C.I. Pigment Blue 28 |
| 13463-67-7 | 5-15% | Titanium oxide (TiO ₂) |
| 68186-91-4 | 0-5% | C.I. Pigment Black 28 |
| 68187-11-1 | 0-10% | C.I. Pigment Blue 36 |

Alesal 610 Light Blue

4 FIRST AID MEASURES

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| Inhalation: | If inhaled, remove to fresh air. Get immediate medical attention. |
| Skin Contact: | Remove contaminated clothing and footwear immediately, and wash before reuse. Discard clothing and footwear which cannot be decontaminated. Promptly flush skin with water until all chemical is removed. Get medical attention if irritation develops and persists. |
| Eye Contact: | Immediately flush eyes with large amounts of water for at least 15 minutes, lifting eyelids occasionally to facilitate irrigation. Then remove contact lenses, if easily removeable, and continue irrigation for not less than 15 minutes. Get immediate medical attention. |
| Ingestion: | Do not induce vomiting. Rinse mouth with water. Give 200-300 ml (8 oz.) of water to drink. Get prompt, qualified medical attention. |

5 FIRE FIGHTING MEASURES

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| Flash Point: | Not Applicable |
| Extinguishing Media - | Use sand or carbon dioxide (CO ₂). |
| Special Fire Fighting Procedures - | Do not use extinguishing media containing water as a reaction with aluminum may produce hydrogen gas. Wear protective clothing and NIOSH/OSHA approved positive pressure self contained breathing apparatus in fire conditions. |
| Unusual Fire and Explosion Hazards - | If material is allowed to evaporate to produce dry aluminum, the aluminum can then react with water to produce hydrogen gas. |

6 ACCIDENTAL RELEASE MEASURES

NOTE: Review FIRE FIGHTING MEASURES and HANDLING (PERSONNEL) sections before proceeding with clean-up. Use appropriate personal protective equipment during clean-up. Spilled material is a slipping hazard.

Spill Clean Up

Soak up with sawdust, sand, oil dry or other absorbent material. Shovel or sweep up.

Disposal Considerations:

Preferred options for disposal are: (1) Separate solids from liquid by precipitation and decanting or filtering. Dispose of dry solids in a landfill that is permitted, licensed or registered by a state to manage industrial solid waste. Discharge liquid filtrate to a wastewater treatment system. (2) Incinerate only if incinerator is capable of scrubbing out hydrogen fluoride and other acidic combustion products. Treatment, storage, transportation, and disposal must be in accordance with applicable federal, state/provincial, and local regulations.

7 HANDLING AND STORAGE

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| Handling Precautions: | Avoid breathing vapors or mist. Avoid contact with eyes, skin, or clothing. Consider normal working hygiene. Launder contaminated clothing. Wash thoroughly after handling. |
| Storage Requirements: | Protect from freezing. |

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

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| Engineering Controls: | Engineering methods to prevent or control exposure are preferred. Methods include process or personnel enclosure, mechanical ventilation (dilution and local exhaust), and control of process conditions. |
| Personal Protective Equipment: | Respiratory protection: Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). |

Alseal 610 Light Blue

Hand protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Eye protection: Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin and body protection: impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Hygiene measures: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Components with workplace control parameters

C.I. Pigment Black 28 (Copper Chromite Black Spinel) (68189-91-4)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):
CHROMIUM (III) AND COMPOUNDS: (PEL) 1 mg/m³ (as Cr)
COPPER DUSTS AND MISTS (PEL) 1 mg/m³ (as Cu) Dust and mist.
0.1 mg/m³ (as Cu) Fume.

US. ACGIH Threshold Limit Values:
CHROMIUM (III) AND COMPOUNDS: (TWA) 0.5 mg/m³ (as Cr)
COPPER DUSTS AND MISTS: (TWA) 1 mg/m³ (as Cu) Dust and mist.
0.2 mg/m³ (as Cu) Fume.

US. NIOSH: Pocket Guide to Chemical Hazards:
CHROMIUM (III) AND COMPOUNDS (TWA) 0.5 mg/m³ (as Cr)
COPPER DUSTS AND MISTS (TWA) 1 mg/m³ (as Cu) Dust and mist

C.I. Pigment Blue 28 (COBALT ALUMINATE BLUE SPINEL) (1345-16-0)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):
COBALT METAL, DUST AND FUMES (PEL) 0.1 mg/m³ (as Co) Dust and fume

US. ACGIH Threshold Limit Values:
COBALT METAL, DUST AND FUMES (TWA) 0.02 mg/m³ (as Co)

US. NIOSH: Pocket Guide to Chemical Hazards:
COBALT METAL, DUST AND FUMES (TWA) 0.05 mg/m³ (as Co) Dust and fume

CI Pigment Blue 36 (COBALT CHROMITE BLUE-GREEN SPINEL) (61187-11-1)

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000):
CHROMIUM (III) AND COMPOUNDS (PEL) 1 mg/m³ (as Cr)
COBALT METAL, DUST AND FUMES (PEL) 0.1 mg/m³ (as Co)
ZINC COMPOUNDS (PEL) NONE (as Zn)

US. ACGIH Threshold Limit Values:
CHROMIUM (III) AND COMPOUNDS (TWA) 0.5 mg/m³ (as Cr)
COBALT METAL, DUST AND FUMES (TWA) 0.02 mg/m³ (as Co) Dust and fume.
ZINC COMPOUNDS (PEL) NONE (as Zn)

US. NIOSH: Pocket Guide to Chemical Hazards:

CHROMIUM (III) AND COMPOUNDS (TWA) 0.5 mg/m³ (as Cr)
COBALT METAL, DUST AND FUMES (TWA) 0.05 mg/m³ (as Co) Dust and fume.
ZINC COMPOUNDS (PEL) NONE (as Zn)

Alesal 610 Light Blue

Titanium Dioxide (13463-67-7)

PEL: (OSHA) 15 mg/m³ 8 hr. TWA Total dust.

TLV : (ACGIH) 10 mg/m³ TWA

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| 9 | PHYSICAL AND CHEMICAL PROPERTIES |
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| Appearance: | Blue | Odor: | No distinct odor |
| Physical State: | Liquid | Percent Volatile: | 80-85% by volume |
| Spec Grav./Density: | 1.55 | Freezing/Melting Pt.: | 32 F |
| Boiling Point: | 212 F | | |
| pH: | 11 | | |

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| 10 | STABILITY AND REACTIVITY |
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| Chemical Stability: | Product is stable under normal conditions. |
| Materials to Avoid: | Strong Acids; Strong Bases. |
| Hazardous Decomposition: | Not known. |
| Hazardous Polymerization: | Will not occur. |

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| 11 | TOXICOLOGICAL INFORMATION |
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Silicic acid, potassium salt (1312-76-1)

Acute toxicity

Ingestion All symptoms of acute toxicity are due to high alkalinity. Material will cause irritation. Oral LD₅₀ (rat) >5000 mg/kg bw
 Inhalation All symptoms of acute toxicity are due to high alkalinity. Mist is irritant to the respiratory tract. Inhalation LC₅₀ (rat) >2.06 g/m³
 Skin Contact Repeated and/or prolonged skin contact may cause slight irritation. Dermal LD₅₀ (rat) >5000 mg/kg bw
 Eye Contact Liquid or mist may cause discomfort and mild irritation.

Skin corrosion/irritation

Repeated and/or prolonged skin contact may cause slight irritation.

Serious eye damage/irritation Liquid or mist may cause discomfort and mild irritation.

Sensitisation Not sensitising.

Mutagenicity No evidence of genotoxicity. In vitro/in vivo negative.

Carcinogenicity No structural alerts.

Reproductive toxicity No evidence of reproductive toxicity or developmental toxicity.

STOT - single exposure Not classified

STOT - repeated exposure Not classified. NOAEL oral (rat) 159 mg/kg bw/d

Aspiration hazard Not classified

C.I. Pigment Black 28 (Copper Chromite Black Spinel) (68189-91-4)

Information on toxicological effects

Acute toxicity:

Inhalation: LD₅₀ (Rat) > 11.1 mg/l Shepherd Color Test Data

Oral: LD₅₀ (Rat) > 10000 mg/kg Shepherd Color Test Data

Dermal: no data available

Skin corrosion/irritation: Contact with skin may cause irritation.

Serious eye damage/eye irritation: May irritate eyes.

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Aleseal 610 Light Blue

Carcinogenicity:

IARC: CHROMIUM COMPOUND (CAS 7440-47-3) 3 Not classifiable as to carcinogenicity to humans.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

C.I. Pigment Blue 28 (COBALT ALUMINATE BLUE SPINEL) (1345-16-0)

Information on toxicological effects

Acute toxicity:

Inhalation: LD50 (Rat) > Not Tested

Oral: LD50 (Rat) > 10000 mg/kg Shepherd Color Test Data

Dermal: no data available

Skin corrosion/irritation: Contact with skin may cause irritation.

Serious eye damage/eye irritation: May irritate eyes.

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by IARC.

ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

NTP: No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

CI Pigment Blue 36 (COBALT CHROMITE BLUE-GREEN SPINEL) (61187-11-1)

Information on toxicological effects

Acute toxicity:

Inhalation: LD50 (Rat) > Not Tested

Oral: LD50 (Rat) > 10000 mg/kg Shepherd Color Test Data

Dermal: no data available

Skin corrosion/irritation: Contact with skin may cause irritation.

Serious eye damage/eye irritation: May irritate eyes.

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: CHROMIUM COMPOUND (CAS 7440-47-3) 3 Not classifiable as to carcinogenicity to humans.

COBALT COMPOUND (CAS 7440-48-4) 2B Possibly carcinogenic to humans

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

Alesal 610 Light Blue

by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Titanium Dioxide (13463-67-7)

Inhalation 4 h LC50 : > 6.82 mg/l , Rat

Dermal LD50 : > 10,000 mg/kg , Rabbit

Oral LD50 : > 5,000 mg/kg , Rat

Skin irritation : Slight or no skin irritation, Rabbit

Eye irritation : Slight or no eye irritation, Rabbit

Sensitisation : Did not cause sensitisation on laboratory animals., Mouse

Did not cause sensitisation on laboratory animals., Guinea pig

Repeated dose toxicity : Oral Rat: No toxicologically significant effects were found.

Inhalation Rat: No toxicologically significant effects were found.

Carcinogenicity : In lifetime inhalation studies rats were exposed for 2 years to respectively 10, 50 and 250 mg/m³ of respirable TiO₂. Slight lung fibrosis was observed at 50 and 250 mg/m³ levels. Microscopic lung tumours were also observed in 13 percent of the rats exposed to 250 mg/m³, an exposure level that caused lung overloading and impairment of rat lungs clearance mechanisms. In further studies, these tumours were found to occur only under particle overload conditions in a uniquely sensitive species, the rat, and have little or no relevance for humans. The pulmonary inflammatory response to TiO₂ particles exposure was also found to be much more severe in rats than in other rodent species. In February 2006, IARC has re-evaluated Titanium dioxide as pertaining to Group 2B: "possibly carcinogenic to humans", based upon inadequate evidence in humans and sufficient evidence in experimental animals for the carcinogenicity of titanium dioxide. IARC evaluation guidelines consider the generation of tumours, in 2 different studies within the same animal species, to be adequate criteria for an assessment of sufficient evidence. The conclusions of several epidemiology studies on more than 20000 TiO₂ industry workers in Europe and the USA did not suggest a carcinogenic effect of TiO₂ dust on the human lung. Mortality from

other chronic diseases, including other respiratory diseases, was also not associated with exposure to TiO₂ dust. Based upon all available study results, DuPont scientists conclude that titanium dioxide will not cause lung cancer or chronic respiratory diseases in humans at concentrations experienced in the workplace.

Mutagenicity : Did not cause genetic damage in animals.

Tests on bacterial or mammalian cell cultures did not show mutagenic effects.

12

ECOLOGICAL INFORMATION**Silicic acid, potassium salt (1312-76-1)**

Toxicity

Fish (Leuciscus idus) LC50 (48 hour) >146 mg/l

Aquatic invertebrates: (Daphnia magna) EC50 (24 hour) >146 mg/l

Persistence and degradability: Inorganic. Soluble silicates, upon dilution, rapidly depolymerise into molecular species indistinguishable from natural dissolved silica.

Bioaccumulative potential: Inorganic. The substance has no potential for bioaccumulation.

Mobility in soil: Not applicable.

Results of PBT and vPvB assessment: Not classified as PBT or vPvB.

Other adverse effects: The alkalinity of this material will have a local effect on ecosystems sensitive to changes in pH.

Alesal 610 Light Blue

C.I. Pigment Black 28 (Copper Chromite Black Spinel) (68189-91-4)

Ecotoxicity: Not expected to be harmful to aquatic organisms.
 Persistence and degradability: The product is not expected to be biodegradable.
 Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.
 Mobility in soil: No data available.
 Mobility in general: No data available.
 Other adverse effects: None known.

C.I. Pigment Blue 28 (COBALT ALUMINATE BLUE SPINEL) (1345-16-0)

Ecotoxicity: Not expected to be harmful to aquatic organisms.
 Persistence and degradability: The product is not expected to be biodegradable.
 Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.
 Mobility in soil: No data available.
 Mobility in general: No data available.
 Other adverse effects: None known.

CI Pigment Blue 36 (COBALT CHROMITE BLUE-GREEN SPINEL) (61187-11-1)

Ecotoxicity: Not expected to be harmful to aquatic organisms.
 CHROMIUM COMPOUND (CAS 7440-47-3)
 EC50 Crustacea, Water flea (Daphnia magna) 0.01 % 0.7 mg/l, 48 hour
 LC50 Fish, Carp (Cyprinus carpio) 14.3 mg/l, 96 hours
 ZINC COMPOUND (CAS 7440-66-6)
 EC50 Crustacea, Water flea (Daphnia magna) 2.8 mg/l, 48 hours
 LC50 Fish Rainbow trout, donaldson trout (Oncorhynchus mykiss) 0.56 mg/l, 96 hours
 Persistence and degradability: The product is not expected to be biodegradable.
 Bioaccumulative potential: The product does not contain any substances expected to be bioaccumulating.
 Mobility in soil: No data available.
 Mobility in general: No data available.
 Other adverse effects: None known.

Titanium Dioxide (13463-67-7)

96 h LC50: Pimephales promelas (fathead minnow) > 1,000 mg/l
 72 h EC50 : Pseudokirchneriella subcapitata (green algae) 61 mg/l
 48 h EC50: Daphnia magna (Water flea) > 1,000 mg/l
 Biodegradability : Pigments are practically not biodegradable.
 Bioaccumulation : Does not bioaccumulate.

13

DISPOSAL CONSIDERATIONS

Waste Disposal Method
 Waste disposal should be in accordance with existing federal, state and local environmental control laws

Empty Container Precautions

Do not heat or cut container with electric or gas torch. Recondition or dispose of empty container in accordance with governmental regulations. Do not reuse empty container without proper cleaning. Label precautions also apply to this container when empty.

14

TRANSPORT INFORMATION

Shipping Name: Class 55, Paint
 Non-hazardous for air, sea and road freight.

Aiseal 610 Light Blue

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| 15 | REGULATORY INFORMATION |
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Component (CAS#) [%] - CODES

 Water (7732-18-5) [40-80%] TSCA

Silicic acid, potassium salt (1312-76-1) [5-15%] TSCA

C.I. Pigment Blue 28 (1345-16-0) [10-15%] SARA313, TSCA

Titanium oxide (TiO₂) (13463-67-7) [5-15%] MASS, OSHAWAC, PA, TSCA, TXAIR

C.I. Pigment Black 28 (68186-91-4) [0-5%] TSCA

C.I. Pigment Blue 36 (68187-11-1) [0-10%] TSCA

Regulatory CODE Descriptions

 TSCA = Toxic Substances Control Act
 SARA313 = SARA 313 Title III Toxic Chemicals
 MASS = MA Massachusetts Hazardous Substances List
 OSHAWAC = OSHA workplace Air Contaminants
 PA = PA Right-To-Know List of Hazardous Substances
 TXAIR = TX Air Contaminants with Health Effects Screening Level

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| 16 | OTHER INFORMATION |
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NOTICE: This information is presented in good faith and believed to be accurate as of the effective date below. However, no warranty is expressed or implied regarding the accuracy of this data or the results to be obtained from the use thereof. Coatings For Industry, Inc. assumes no responsibility for personal injury or property damage to vendees, users, or third parties caused by the material. Such vendees or users assume all risks associated with the use of the material. Regulatory requirements are subject to change and may differ from one location to another: it is the buyer's responsibility to ensure that its activities comply with federal, state or provincial, and local laws. The preceding specific information is made for the purpose of complying with numerous federal, state or provincial, and local laws and regulations.