

Wearcoat 2330 and Wearcoat 2330SR Pigmented Part A

1 PRODUCT AND COMPANY IDENTIFICATION

Product Identifier: Wearcoat 2330 and Wearcoat 2330SR Pigmented Part A
Common Name: Polycaprolactone polyol mixture
SDS Number: I187
Revision Date: 5/6/2019
Version: 1
Chemical Family: Polymeric Polyol
Supplier Details: Coatings for Industry, Inc.
 319 township Line Rd.
 Souderton, PA 18964

Emergency: Infotrac
Contact: USA: 1-800-535-5053 / International :352-323-3500
Phone: 215-723-0919
Fax: 215-723-0911
Email: info@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):

Health, Serious Eye Damage/Eye Irritation, 1
 Health, Skin sensitization, 1
 Health, Acute toxicity, 4 Inhalation
 Health, Acute toxicity, 4 Oral
 Environmental, Hazards to the aquatic environment - Acute, 2
 Environmental, Hazards to the aquatic environment - Chronic, 3
 Health, Carcinogenicity, 2

GHS Label elements, including precautionary statements

GHS Signal Word: **DANGER**

GHS Hazard Pictograms:



GHS Hazard Statements:

H318 - Causes serious eye damage
 H317 - May cause an allergic skin reaction
 H332 - Harmful if inhaled
 H302 - Harmful if swallowed
 H401 - Toxic to aquatic life
 H412 - Harmful to aquatic life with long lasting effects
 H351 - Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)

GHS Precautionary Statements:

P280 - Wear protective gloves/protective clothing/eye protection/face protection.
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.
 P333+313 - If skin irritation or a rash occurs: Get medical advice/attention.
 P302+352 - IF ON SKIN: Wash with soap and water.
 P305+351+338 - IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

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3 COMPOSITION/INFORMATION ON INGREDIENTS
Ingredients:

Cas#	%	Chemical Name
37625-56-2	10-20%	2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol
145899-78-1	1-2%	3-Oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1) (ester)
8052-41-3	0.1-1%	Aliphatic Petroleum Distillate
1333-86-4	0-1%	Carbon black
122-99-6	0.1-1%	Ethanol, 2-phenoxy-
100-41-4	0.1-1%	Ethylbenzene
108-32-7	5-10%	Propylene carbonate
64742-95-6	0.1-1%	Solvent naphtha, petroleum, light arom.
14807-96-6	1-4%	Talc (containing no asbestos fibers)
13463-67-7	25-70%	Titanium oxide (TiO ₂)
1330-20-7	2-3%	Xylene

4 FIRST AID MEASURES

Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.
Skin Contact:	Remove contaminated clothing and footwear immediately, and wash before reuse. Discard clothing and footwear which cannot be decontaminated. Wash skin with soap and water. 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 medical Attention if irritation develops.
Ingestion:	Rinse mouth with water. Drink large quantities of water. Do not induce vomiting. Seek immediate medical attention

5 FIRE FIGHTING MEASURES

Flash Point: 241 °F (116 °C)

Flash Point Method: Closed Cup

Special Fire Fighting Procedures:

Full emergency equipment with self contained breathing apparatus and full protective clothing should be worn by fire fighters. During a fire, irritating and/or toxic gases and smoke (see reactivity data) may be present from decomposition/combustion. Isolate from heat, electrical equipment, sparks and open flame. Closed container may explode when exposed to extreme heat. Use cold water to cool fire exposed containers to minimize risk of rupture. Solvent vapors may be heavier than air. Stagnant air may cause vapors to accumulate and travel along the ground to an ignition source which may result in a flash back to the source of the vapors.

Extinguishing Media: Dry chemical; carbon dioxide; foam; water spray for large fires.

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6 ACCIDENTAL RELEASE MEASURES

Evacuate nonessential personnel.
 Keep away from drains and ground water.
 Pick up excess with inert absorbant material and place into separate waste container.
 Watch out for slippery conditions when spillage.
 Dispose of in accordance with local, state and federal regulations.

7 HANDLING AND STORAGE

Handling Precautions: Avoid breathing vapors or mist.
 Avoid contact with eyes, skin, or clothing.
 Store in a cool dry place. Use approved containers only.
 Keep container tightly sealed.

Storage Requirements: Keep away from heat, sparks, and flames.
 Keep container tightly sealed.
 Store in area where it will not come into contact with strong acids or oxidizing agents.

8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Engineering Controls: Exhaust ventilation sufficient to keep the airborne concentrations of the solvents in the workplace below their respective TLVs.
 Respirator that is recommended or approved for use in organic vapor containing environments (air purifying or fresh air supplied) may be necessary. In spray applications an organic vapor/particulate respirator or air supplied air unit is necessary. The use of a positive pressure supplied air respirator is mandatory when; airborne concentrations are not known; when levels are 10 times the appropriate TLV; or if spraying is performed in a confined space or area with limited ventilation. Take into account other materials being used concurrently, the type of application and environmental concentrations when selecting a respirator. Observe OSHA regulations for respirator use (29 CFR 1910.134).

Personal Protective Equipment: The recommendations in this section should not be a substitute for a personal protective equipment (PPE) assessment performed by the employer as required by 29 CFR 1910 Subpart I.

Respiratory Protection
 If vapors form, respiratory protection is recommended., The use of a positive pressure supplied air respirator is recommended if the airborne concentration is unknown or if spraying is performed in a confined space or area with limited ventilation., In spray applications, an organic vapor/particulate respirator or air supplied unit is necessary.

Hand Protection
 Ensure gloves remain in good condition during use and replace if any deterioration is observed.
 Permeation resistant gloves., Viton gloves., 4H laminate gloves., Butyl rubber gloves., Nitrile rubber gloves.

Eye Protection
 Chemical safety goggles or safety glasses with side-shields., Chemical safety goggles in combination with a full face shield if a splash hazard exists.

Skin Protection
 Avoid all skin contact. Depending on the conditions of use, cover as much of the exposed skin area as possible with appropriate clothing to prevent skin contact., Where spray mist/vapor is anticipated, permeation resistant clothing is recommended.

Additional Protective Measures
 Employees should wash their hands and face before eating, drinking, or using tobacco products.
 Educate and train employees in the safe use and handling of this product. Emergency showers and eye wash stations should be available.

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Exposure Limits

Any component which is listed in section 3 and is not listed in this section does not have a known ACGIH TLV, OSHA PEL or supplier recommended occupational exposure limit.

Xylene (1330-20-7)

TWA 100 ppm USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants
 435 mg/m³

TWA 100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 435 mg/m³

STEL 150 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants -1910.1000
 655 mg/m³

TWA 100 ppm USA. ACGIH Threshold Limit Values (TLV)
 434 mg/m³

Not classifiable as a human carcinogen

STEL 150 ppm USA. ACGIH Threshold Limit Values (TLV)
 651 mg/m³

Not classifiable as a human carcinogen

Eye & Upper Respiratory Tract irritation Central Nervous System impairment Substances for which there is a Biological Exposure Index or Indices (see BEI section) Not classifiable as a human carcinogen

Ethylbenzene (100-41-4)

TWA 20 ppm USA. ACGIH Threshold Limit Values (TLV)
 Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) Substances for which there is a Biological Exposure Index or Indices (see BEI section) Confirmed animal carcinogen with unknown relevance to humans

STEL 125 ppm USA. ACGIH Threshold Limit Values (TLV)
 Central Nervous System impairment Upper Respiratory Tract irritation Eye irritation Adopted values or notations enclosed are those for which changes are proposed in the NIC See Notice of Intended Changes (NIC) Substances for which there is a Biological Exposure Index or Indices (see BEI section) Confirmed animal carcinogen with unknown relevance to humans

TWA 100 ppm USA. NIOSH Recommended Exposure Limits
 435 mg/m³

ST 125 ppm USA. NIOSH Recommended Exposure Limits
 545 mg/m³

TWA 100 ppm USA. Occupational Exposure Limits (OSHA) - Table Z- 1 Limits for Air Contaminants
 435 mg/m³

The value in mg/m³ is approximate.

TWA 100 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 435 mg/m³

STEL 125 ppm USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 545 mg/m³

Aliphatic Petroleum Distillate (8052-41-3)

ACGIH TLV (United States, 3/2012).

TWA: 525 mg/m³ 8 hours.

TWA: 100 ppm 8 hours.

NIOSH REL (United States, 6/2009).

CEIL: 1800 mg/m³ 15 minutes.

TWA: 350 mg/m³ 10 hours.

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OSHA PEL (United States, 6/2010).
 TWA: 2900 mg/m³ 8 hours.
 TWA: 500 ppm 8 hours.

Titanium Dioxide (13463-67-7)

PEL: (OSHA) 15 mg/m³ 8 hr. TWA Total dust.
 TLV : (ACGIH) 10 mg/m³ TWA

Talc (containing no asbestos fibers) (14807-96-6)

TWA 20 Million particles per ft³ of air USA. Occupational Exposure Limits (OSHA) - Table Z-3 Mineral Dusts
 Millions of particles per cubic foot of air, based on impinger samples counted by light-field techniques. Containing less than 1% quartz; if 1% quartz or more, use quartz limit. mppcf X 35.3 = million particles per cubic meter = particles per c.c
 TWA 2 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 TWA 2 mg/m³ USA. NIOSH Recommended Exposure Limits
 TWA 2 mg/m³ USA. ACGIH Threshold Limit Values (TLV)
 Lower Respiratory Tract irritation The value is for particulate matter containing no asbestos and < 1% crystalline silica Not classifiable as a human carcinogen

Carbon black (1333-86-4)

TWA 3.5 mg/m³ USA. ACGIH Threshold Limit Values (TLV)
 Not classifiable as a human carcinogen
 TWA 3.5 mg/m³ USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000
 TWA 3.5 mg/m³ USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants
 TWA 3.5 mg/m³ USA. NIOSH Recommended Exposure Limits
 TWA 0.1 mg/m³ USA. NIOSH Recommended Exposure Limits
 Potential Occupational Carcinogen Carbon black in presence of polycyclic aromatic hydrocarbons (PAHs)

9	PHYSICAL AND CHEMICAL PROPERTIES
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Appearance:	Opaque, various colors	Odor:	Mild
Physical State:	Liquid	Percent Volatile:	10-15%
Spec Grav./Density:	1.0-1.1	Flash Point:	241 °F (116 °C)
		VOC:	15-20g/l mixed

10	STABILITY AND REACTIVITY
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Chemical Stability:	Product is stable under normal conditions.
Conditions to Avoid:	Contact with incompatible materials Heat, flames and sparks
Materials to Avoid:	Strong Acids; Strong Oxidizing Agents. Isocyanates; Strong Bases.
Hazardous Decomposition:	By Fire and Thermal Decomposition: Carbon oxides, Nitrogen oxides (NOx), Amines, other aliphatic fragments which have not been determined, Ammonia gas may be liberated at high temperatures.
Hazardous Polymerization:	Will not occur.

11	TOXICOLOGICAL INFORMATION
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Likely Routes of Exposure:
 Skin Contact
 Eye Contact
 Inhalation
 Ingestion

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Health Effects and Symptoms

Acute: May cause allergic skin reaction with symptoms of reddening, itching, swelling, and rash., May cause skin irritation with symptoms of reddening, itching, and swelling., May cause eye irritation with symptoms of reddening, tearing, stinging, and swelling., May cause respiratory tract irritation with symptoms of coughing, sore throat and runny nose.

Chronic: Not expected to cause adverse chronic health effects.

Propylene carbonate (108-32-7)

Acute toxicity

Assessment of acute toxicity: Virtually nontoxic after a single ingestion. Virtually nontoxic after a single skin contact. The inhalation of a highly enriched/saturated vapor-air-mixture represents an unlikely acute hazard.

Oral

Type of value: LD50, Species: rat (male/female) Value: > 5,000 mg/kg (OECD Guideline 401) Limit concentration test only (LIMIT test). No mortality was observed.

Inhalation

Species: rat (no data), Value: (IRT), Exposure time: 8 h, No mortality within the stated exposition time as shown in animal studies.

Dermal

Type of value: LD50, Species: rabbit (male/female) Value: > 2,000 mg/kg (OECD Guideline 402) Limit concentration test only (LIMIT test). No mortality was observed.

Assessment other acute effects

Assessment of STOT single: Based on the available information there is no specific target organ toxicity to be expected after a single exposure.

Irritation / corrosion

Assessment of irritating effects: Not irritating to the skin. Eye contact causes irritation.

Skin

Species: rabbit, Result: non-irritant, Method: Draize test

Eye

Species: rabbit, Result: Irritant., Method: OECD Guideline 405

Sensitization

Assessment of sensitization: The substance did not cause skin sensitization in humans.

Patch-Test: Species: human, Result: Non-sensitizing. Method: Human patch test

Aspiration Hazard

No aspiration hazard expected.

Chronic Toxicity/Effects

Repeated dose toxicity

Assessment of repeated dose toxicity: Repeated oral uptake of the substance did not cause substance-related effects. No adverse effects were observed after repeated inhalative exposure in animal studies. After repeated exposure the prominent effect is local irritation.

Genetic toxicity

Assessment of mutagenicity: No mutagenic effect was found in various tests with microorganisms and mammalian cell culture. The substance was not mutagenic in a test with mammals.

Carcinogenicity

Assessment of carcinogenicity: Dermal exposure is not expected to be carcinogenic.

Reproductive toxicity

Assessment of reproduction toxicity: The results of animal studies gave no indication of a fertility impairing effect. No effects have been reported in reproductive organs in long term animal studies.

Teratogenicity

Assessment of teratogenicity: No indications of a developmental toxic / teratogenic effect were seen in animal studies.

Symptoms of Exposure

The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further symptoms are possible

Medical conditions aggravated by overexposure

Data available do not indicate that there are medical conditions that are generally recognized as being aggravated by

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exposure to this substance/product.

2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (37625-56-2)

Acute toxicity:

LD50 Oral - rat - male and female - > 2,000 mg/kg (Directive 67/548/EEC, Annex V, B.1.)

Inhalation: no data available

Dermal: no data available

Skin corrosion/irritation: Skin - rabbit Result: No skin irritation - 4 h (OECD Test Guideline 404)

Serious eye damage/eye irritation: Eyes - rabbit Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation: - mouse Result: Does not cause skin sensitisation. (OECD Test Guideline 429)

Germ cell mutagenicity: Ames test *S. typhimurium* Result: negative

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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

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

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

Reproductive toxicity: No impairment of fertility has been observed. No embryotoxic or teratogenic effects have been observed.

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: Not available

3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate (145899-78-1)

Acute toxicity: No data available

Skin corrosion/irritation: No data available

Serious eye damage/eye irritation: Causes serious eye damage.

Respiratory or skin sensitization: May cause an allergic skin reaction.

Mutagenicity : No data available

Carcinogenicity : No data available

Reproductive Toxicity/Fertility: No data available

Reproductive Toxicity/Development/Teratogenicity: No data available

STOT - single exposure: No data available

STOT - repeated exposure: No data available

Aspiration toxicity: No data available

Xylene (1330-20-7)

Information on toxicological effects

Acute toxicity:

Oral: LD50 (Rat, male): 3,523 mg/kg, Method: Directive 67/548/EEC, Annex V, B.1.

Inhalation LC50 (Rat): 5000 ppm, Exposure time: 4 h

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Dermal: LD50 (Rabbit): 1,700 mg/kg

Other information on acute toxicity

Skin corrosion/irritation: Species: Rabbit, Result: Mild skin irritation
Serious eye damage/eye irritation: Species: Rabbit, Result: Eye irritation
Respiratory or skin sensitization: no data available

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Ethylbenzene)

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Xylene)

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

OSHA: No component of this product 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

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if swallowed. Skin Causes skin irritation. Eyes Causes eye irritation.

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

Synergistic effects: no data available

Additional Information:

RTECS: Not available

Ethanol, 2-phenoxy- (122-99-6)

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 Oral - rat - 1,260 mg/kg Remarks: Behavioral:General anesthetic. Gastrointestinal:Other changes. Kidney, Ureter, Bladder:Other changes.

Inhalation LC50 no data available

Dermal LD50 LD50 Dermal - rat - 14,422 mg/kg Remarks: Lungs, Thorax, or Respiration:Acute pulmonary edema.

Other information on acute toxicity

Skin corrosion/irritation: Skin - rabbit - Mild skin irritation - 24 h

Serious eye damage/eye irritation: Eyes - rabbit - Moderate eye irritation

Respiratory or skin sensitization: Species: Guinea pig, Method: OECD Test Guideline 406, Result: Does not cause skin sensitization.

Germ cell mutagenicity: no data available

Carcinogenicity:

IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

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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: May cause reproductive disorders.

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion Harmful if swallowed. Skin Harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.

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

Synergistic effects: no data available

Additional Information:

RTECS: KM0350000

Ethylbenzene (100-41-4)

Information on toxicological effects

Acute toxicity:

Oral LD50 (Rat): 3,500 mg/kg

Inhalation LC50 no data available

Dermal LD50 Dermal - rabbit - 15,433 mg/kg

Other information on acute toxicity

Skin corrosion/irritation: Rabbit, moderate irritation, 24hr.

Serious eye damage/eye irritation: Rabbit, mild eye irritation

Respiratory or skin sensitisation: no data available

Germ cell mutagenicity: Hamster ovary, negative result. Mouse male and female, negative result.

Carcinogenicity:

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Ethylbenzene)

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

Teratogenicity: no data available

Specific target organ toxicity - single exposure (Globally Harmonized System): no data available

Specific target organ toxicity - repeated exposure (Globally Harmonized System): no data available

Aspiration hazard: no data available

Potential health effects: Inhalation May be harmful if inhaled. Causes respiratory tract irritation. Ingestion May be harmful if

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swallowed. Skin May be harmful if absorbed through skin. Causes skin irritation. Eyes Causes eye irritation.
Signs and Symptoms of Exposure: Central nervous system depression, Nausea, Headache, Vomiting, Ataxia., Tremors

Synergistic effects: no data available

Additional Information:

RTECS: DA0700000

Aliphatic Petroleum Distillate (8052-41-3)

Acute toxicity: There is no data available.
Carcinogenicity: There is no data available.
Mutagenicity: There is no data available.
Teratogenicity: There is no data available.
Reproductive toxicity: There is no data available.

Irritation/Corrosion:

Rabbit: 24hrs, 500mg: Eyes - Moderate irritant

Human: 100ppm: Eyes - Mild irritant

Sensitization:

Skin: There is no data available.

Respiratory: There is no data available.

Specific target organ toxicity (single exposure): There is no data available.

Specific target organ toxicity (repeated exposure): There is no data available.

Information on the likely routes of exposure: Dermal contact, eye contact, inhalation, ingestion.

Aspiration hazard

ASPIRATION HAZARD - Category 1

Solvent Naphtha, petroleum, light arom. (64742-95-6)

Inhalation

Acute Toxicity: (Rat) 4 hour(s) LC50 > 6193 mg/m³ (Max attainable vapor conc.) Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 403

Irritation: No end point data for material. May be irritating to the respiratory tract. The effects are reversible. Based on assessment of the components.

Ingestion

Acute Toxicity (Rat): LD50 3492 mg/kg Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 401

Skin

Acute Toxicity (Rabbit): LD50 > 3160 mg/kg Minimally Toxic. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 402

Skin Corrosion/Irritation: Data available. Mildly irritating to skin with prolonged exposure. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 404

Eye

Serious Eye Damage/Irritation: Data available. May cause mild, short-lasting discomfort to eyes. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 405

Sensitization

Respiratory Sensitization: No end point data for material. Not expected to be a respiratory sensitizer.

Skin Sensitization: Data available. Not expected to be a skin sensitizer. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 406

Aspiration: Data available. May be fatal if swallowed and enters airways. Based on physico-chemical properties of the

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material.

Germ Cell Mutagenicity: Data available. Not expected to be a germ cell mutagen. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 471 475 476 479

Carcinogenicity: No end point data for material. Caused cancer in laboratory animals, but the relevance to humans is uncertain. Based on assessment of the components.

Reproductive Toxicity: Data available. Not expected to be a reproductive toxicant. Based on test data for the material. Test(s) equivalent or similar to OECD Guideline 414 416

Lactation: No end point data for material. Not expected to cause harm to breast-fed children.

Specific Target Organ Toxicity (STOT)

Single Exposure: No end point data for material. May cause drowsiness or dizziness. May be irritating to the respiratory tract. Based on assessment of the components.

Repeated Exposure: Data available. Not expected to cause organ damage from prolonged or repeated exposure. Based on test data for structurally similar materials. Test(s) equivalent or similar to OECD Guideline 408 452

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.

Talc (containing no asbestos fibers) (14807-96-6)

NIOSH registry number: WW2710000

SAX toxicity evaluation: THR: Not available

Carcinogenic Status:

IARC: In 2006, IARC concluded that inhaled talc not containing asbestos or asbestiform fibers is not classifiable as a human carcinogen (Group 3).

IARC: In 2006, IARC ruled that there is limited evidence that the use of talc-based body powder for perineal dusting is a possible risk factor for ovarian cancer (Group 2B). This is not a route of exposure relevant to workers and applies only to one specific use of talc.

OSHA: Not listed

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ACGIH: A4 - not classified as a human carcinogen

WHMIS: Class D-2A

NTP: Not listed. A 2-year inhalation study demonstrated clear evidence of carcinogenic activity in female rats at exposure levels of 18 mg/m³. Some evidence of carcinogenic activity was observed in male rats at the same level. No evidence of carcinogenic activity was found in mice (NTP TR-421).

Tumorigenic Data

TCLo: inh-rat 11 mg/m³/1Y-1

TDLo: imp-rat 200 mg/kg

Other Toxicity Data: Skin and eye irritation data: skn-hmn 300 ug/3D-I MLD

Teratogenicity (reproductive effects data): Repeated ingestion of large doses of talc for 13 and 10 successive days by rabbits and mice revealed negative teratogenic and carcinogenic results

Mutation Data: Not available

Carbon black (1333-86-4)

Information on toxicological effects

Acute toxicity:

LD50 Oral - rat - male and female - > 8,000 mg/kg (OECD Test Guideline 401)

Inhalation: no data available

LD50 Dermal - rabbit - > 3,000 mg/kg

Skin corrosion/irritation: Skin - rabbit Result: No skin irritation - 24 h (OECD Test Guideline 404)

Serious eye damage/eye irritation: Eyes - rabbit Result: No eye irritation (OECD Test Guideline 405)

Respiratory or skin sensitisation: - guinea pig Result: Did not cause sensitisation on laboratory animals. (OECD Test Guideline 406)

Germ cell mutagenicity: Ames test *S. typhimurium* Result: negative

Hamster ovary

DNA repair rat - female

Carcinogenicity:

Carcinogenicity - rat - Inhalation:

Tumorigenic: Carcinogenic by RTECS criteria. Lungs, Thorax, or Respiration: Tumors.

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

Limited evidence of carcinogenicity in animal studies

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Carbon black)

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

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

Reproductive toxicity: no data available

Specific target organ toxicity - single exposure: no data available

Specific target organ toxicity - repeated exposure: no data available

Aspiration hazard: no data available

Additional Information:

RTECS: FF5800000

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

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ECOLOGICAL INFORMATION

Propylene carbonate (108-32-7)

Toxicity

Aquatic toxicity

Assessment of aquatic toxicity:

Wearcoat 2330 and Wearcoat 2330SR Pigmented Part A

There is a high probability that the product is not acutely harmful to aquatic organisms. The inhibition of the degradation activity of activated sludge is not anticipated when introduced to biological treatment plants in appropriate low concentrations.

Toxicity to fish

LC50 (96 h) > 1,000 mg/l, *Cyprinus carpio* (Directive 92/69/EEC, C.1, semistatic)

The details of the toxic effect relate to the nominal concentration.

Aquatic invertebrates

EC50 (48 h) > 1,000 mg/l, *Daphnia magna* (OECD Guideline 202, part 1, static)

The details of the toxic effect relate to the nominal concentration.

Aquatic plants

EC50 (72 h) > 900 mg/l (growth rate), *Desmodesmus subspicatus* (OECD Guideline 201, static)

The statement of the toxic effect relates to the analytically determined concentration.

Chronic toxicity to fish

Study scientifically not justified.

Chronic toxicity to aquatic invertebrates

Study scientifically not justified.

Assessment of terrestrial toxicity

Study scientifically not justified.

Microorganisms/Effect on activated sludge

Toxicity to microorganisms

DIN 38412 Part 8 aquatic bacterium/EC10 (16 h): 7,400 mg/l

Persistence and degradability

Assessment biodegradation and elimination (H₂O)

Readily biodegradable (according to OECD criteria).

Elimination information

90 - 100 % DOC reduction (14 d) (OECD 301 A (new version)) (aerobic, activated sludge, domestic)

Assessment of stability in water

Study scientifically not justified.

Bioaccumulative potential

Assessment bioaccumulation potential

Because of the n-octanol/water distribution coefficient (log Pow) accumulation in organisms is not to be expected.

Bioaccumulation potential

Study scientifically not justified.

Mobility in soil

Assessment transport between environmental compartments

The substance will slowly evaporate into the atmosphere from the water surface.

Adsorption to solid soil phase is not expected.

Additional information

Adsorbable organically-bound halogen (AOX):

This product contains no organically-bound halogen.

Other ecotoxicological advice:

Do not release untreated into natural waters.

3-Oxazolidineethanol, 2-(1-methylethyl)-, 3,3'-carbonate (145899-78-1)

Toxicity: No data available

Persistence and degradability: No data available

Bioaccumulative potential: No data available

Mobility in soil: No data available

Results of PBT and vPvB assessment

This substance/mixture contains no components considered

to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

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Other adverse effects
No data available

2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (37625-56-2)

Information on ecological effects

Toxicity:

Toxicity to fish semi-static test LC50 - Danio rerio (zebra fish) - 150 mg/l - 96 h. (OECD Test Guideline 203)

Persistence and degradability

Readily biodegradeable

Method	Value	Exposure time	Results:
OECD Test No. 301B: Ready Biodegradability: CO2 Evolution Test (TG 301 B)	77%	28d	Readily biodegradable
OECD Test No. 111: Hydrolysis as a Function of pH	<<10% (pH=4)		Stable
OECD Test No. 111: Hydrolysis as a Function of pH	<10% (pH=7)		Stable
OECD Test No. 111: Hydrolysis as a Function of pH	t _{1/2} =16h (pH=9,50°C)		hydrolysis

Bioaccumulative potential: Not bioaccumulable.

Mobility in soil: The substance is not expected to adsorb to a high degree to suspended solids and sediment based upon the log Pow.

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

Additional information

Do not allow into any sewer, on the ground or into any body of water.

Aliphatic Petroleum Distilate (8052-41-3)

Toxicity: There is no data available

Persistence and degradability: There is no data available

Bioaccumulation Potential: LogP_{ow}: 3016 to 7.06, High

Mobility in Soil: There is no data available

Other adverse effects: No known significant effects or critical hazards.

Xylene (1330-20-7)

Toxicity

Acute EC50 90 mg/l Fresh water: Crustaceans - Cypris subglobosa, 48 hours

Acute LC50 8.5 ppm Marine water: Crustaceans - Palaemonetes pugio - Adult, 48 hours

Acute LC50 8500 µg/l Marine water: Crustaceans - Palaemonetes pugio, 48 hours

Acute LC50 15700 µg/l Fresh water: Fish - Lepomis macrochirus - Juvenile (Fledgling, Hatchling, Weanling), 96 hours

Acute LC50 19000 µg/l Fresh water: Fish - Lepomis macrochirus, 96 hours

Acute LC50 13400 µg/l Fresh water: Fish - Pimephales promelas, 96 hours

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Acute LC50 16940 µg/l Fresh water: Fish - Carassius auratus, 96 hours

Persistence and Degradability: No data available

Bioaccumulative potential: LogP_{ow} 3.12, BCF 8.1 to 25.9, Potential low

Mobility in Soil: No data available

Other adverse effects: No known significant effects or critical hazards.

Ethanol, 2-phenoxy- (122-99-6)

Information on ecological effects

Toxicity:

Toxicity to fish

LC50 - Leuciscus idus (Golden orfe) - > 100 mg/l - 96 h.

LC 50 (Harlequinfish, red rasbora (Rasbora heteromorpha), 48 h): 135 mg/l

LC 50 (Fathead minnow (Pimephales promelas), 96 h): 337 -352 mg/l

Persistence and degradability: Biodegradability Remarks: Readily biodegradable, according to appropriate OECD test.

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

Ethylbenzene (100-41-4)

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Cyprinodon variegatus (sheepshead minnow) - 88.00 mg/l - 96 h.

LC50 - Lepomis macrochirus (Bluegill) - 80.00 mg/l - 96 h

NOEC - Cyprinodon variegatus (sheepshead minnow) - 88 mg/l - 96 h

LC50 - Oncorhynchus mykiss (rainbow trout) - 4.2 mg/l - 96 h

Toxicity to daphnia EC50 - Daphnia magna (Water flea) - 2.90 mg/l - 48 h.

and other aquatic invertebrates

Persistence and degradability: Biodegradability, aerobic: Exposure time, 28 d Result: 70 -80 % - Readily biodegradable

Bioaccumulative potential: Due to the distribution coefficient n-octanol/water, accumulation in organisms is not expected.

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Toxic to aquatic life.

Solvent Naphtha, petroleum, light arom. (64742-95-6)

Information on ecological effects

Toxicity:

Aquatic - Acute Toxicity: 72 hour(s), Pseudokirchneriella subcapitata, ErL50 2.9 mg/l: data for similar materials

Aquatic - Acute Toxicity: 72 hour(s), Pseudokirchneriella subcapitata, NOELR 1 mg/l: data for similar materials

Aquatic - Acute Toxicity: 96 hour(s), Oncorhynchus mykiss, LL50 9.2 mg/l: data for similar materials

Aquatic - Acute Toxicity: 48 hour(s), Daphnia magna, EL50 3.2 mg/l: data for similar materials

Persistence, Degradability and Bioaccumulation Potential:

In Water, Ready Biodegradability, 28 day(s): Percent Degraded 78%

Biodegradation: Expected to be readily biodegradable.

Hydrolysis: Transformation due to hydrolysis not expected to be significant.

Photolysis: Transformation due to photolysis not expected to be significant.

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Atmospheric Oxidation: Expected to degrade rapidly in air

Mobility: Highly volatile, will partition rapidly to air. Not expected to partition to sediment and wastewater solids.

Other adverse effects: Expected to be toxic to aquatic organisms. May cause long-term adverse effects in the aquatic environment.

Titanium Dioxide (13463-67-7)

Aquatic Toxicity

Titanium Dioxide Pigment - Paint Coatings - Dry Grades

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

Environmental Fate

Titanium Dioxide Pigment - Paint Coatings - Dry Grades

Biodegradability : Pigments are practically not biodegradable.

Bioaccumulation : Does not bioaccumulate.

Talc (containing no asbestos fibers) (14807-96-6)

Toxicity: No data are available on this product. No specific adverse effects known.

Persistence and degradability: No data are available on this product. Product is an inorganic substance and therefore is not considered biodegradable.

Other adverse effects: No specific adverse effects known.

Carbon black (1333-86-4)

Information on ecological effects

Toxicity:

Toxicity to fish LC50 - Danio rerio (zebra fish) - > 1,000 mg/l - 96 h.

Toxicity to daphnia and static test EC50 - Daphnia magna (Water flea) - > 5,600 mg/l - 24 h.

other aquatic (OECD Test Guideline 202) invertebrates

Toxicity to algae static test EC50 - Desmodesmus subspicatus (green algae) - > 10,000 mg/l -:72 h (OECD Test Guideline 201)

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

Results of PBT and vPvB assessment PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

Other adverse effects: no data available

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DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, and federal regulations. Incineration is the preferred method.

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14	TRANSPORT INFORMATION
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Land transport (DOT)

Non-Regulated

Sea transport (IMDG)

Non-Regulated

Air transport (ICAO/IATA)

Non-Regulated

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

 2-Oxepanone, polymer with 2-ethyl-2-(hydroxymethyl)-1,3-propanediol (37625-56-2) [65-75%] TSCA

RQ(100LBS), Xylene (1330-20-7) [2-3%] CERCLA, CSWHS, EPCRAWPC, HAP, MASS, NJHS, OSHAWAC, PA, SARA313, TOXICRCRA, TSCA, TXAIR, TXHWL

3-Oxazolidineethanol, 2-(1-methylethyl)-, carbonate (2:1) (ester) (145899-78-1) [2.5-5%] TSCA

Propylene carbonate (108-32-7) [1-5%] HAP, NJHS, PA, TSCA

Aliphatic Petroleum Distillate (8052-41-3) [1-3%] MASS, OSHAWAC, PA, TSCA, TXAIR

Ethanol, 2-phenoxy- (122-99-6) [1-2%] HAP, TSCA, TXAIR

Ethylbenzene (100-41-4) [1-2%] CERCLA, CSWHS, EPCRAWPC, HAP, MASS, NJHS, OSHAWAC, PA, PRIPOL, SARA313, TOXICPOL, TSCA, TXAIR

Solvent naphtha, petroleum, light arom. (64742-95-6) [0.1-1%] TSCA

Titanium oxide (TiO₂) (13463-67-7) [25-70%] MASS, OSHAWAC, PA, TSCA, TXAIR

Talc (containing no asbestos fibers) (14807-96-6) [1-4%] MASS, OSHAWAC, PA, TSCA, TXAIR

Carbon black (1333-86-4) [0-1%] MASS, OSHAWAC, PA, TSCA, TXAIR

Regulatory CODE Descriptions

 RQ = Reportable Quantity
 TSCA = Toxic Substances Control Act
 CERCLA = Superfund clean up substance
 CSWHS = Clean Water Act Hazardous substances
 EPCRAWPC = EPCRA water Priority Chemicals
 HAP = Hazardous Air Pollutants
 MASS = MA Massachusetts Hazardous Substances List
 NJHS = NJ Right-to-Know Hazardous Substances
 OSHAWAC = OSHA workplace Air Contaminants
 PA = PA Right-To-Know List of Hazardous Substances
 SARA313 = SARA 313 Title III Toxic Chemicals
 TOXICRCRA = RCRA Toxic Hazardous Wastes (U-List)
 TXAIR = TX Air Contaminants with Health Effects Screening Level
 TXHWL = TX Hazardous Waste List
 PRIPOL = Clean Water Act Priority Pollutants
 TOXICPOL = Clean Water Act Toxic Pollutants

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OTHER INFORMATION

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.