

## Wearcoat 481HP Clear Part A

## 1 PRODUCT AND COMPANY IDENTIFICATION

**Product Identifier:** Wearcoat 481HP Clear Part A  
**Common Name:** Epoxy resin  
**SDS Number:** I105  
**Revision Date:** 3/6/2016  
**Version:** 1  
**Product Use:** Epoxy floor coating  
**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):

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

## 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  
 H315 - Causes skin irritation  
 H312 - Harmful in contact with skin  
 H332 - Harmful if inhaled  
 H302 - Harmful if swallowed  
 H402 - Harmful to aquatic life

## GHS Precautionary Statements:

P261 - Avoid breathing dust/fume/gas/mist/vapors/spray.  
 P264 - Wash \_ thoroughly after handling.  
 P270 - Do not eat, drink or smoke when using this product.  
 P271 - Use only outdoors or in a well-ventilated area.  
 P273 - Avoid release to the environment.  
 P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
 P301+312 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.

## Wearcoat 481HP Clear Part A

P302+352 - IF ON SKIN: Wash with soap and water.  
 P304+340 - 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.  
 P330 - Rinse mouth.  
 P332+313 - If skin irritation occurs: Get medical advice/attention.  
 P362 - Take off contaminated clothing and wash before reuse.  
 P501 - Dispose of contents/container in compliance with all Federal, State/Provincial and local laws

**Hazards not otherwise classified (HNOC) or not covered by GHS**

**Route of Entry:** Skin contact, and Eye contact.  
**Target Organs:** Eyes, skin , respiratory system  
**Inhalation:** The low vapor pressure of the resin makes inhalation unlikely in normal use.  
**Skin Contact:** - Moderate irritant. Contact at elevated temperatures can cause thermal burns. May cause skin sensitization (rashes, hives). Prolonged skin contact is unlikely to result in absorption of harmful amounts.  
**Eye Contact:** Moderate to severe irritant. Contact at elevated temperatures can cause thermal burns.

**3 COMPOSITION/INFORMATION ON INGREDIENTS****Ingredients:**

Cas#	%	Chemical Name
25085-99-8	70-80%	Propane, 2,2-bis[p-(2,3-epoxypropoxy)phenyl]-, polymers
4074-88-8	5-10%	2-Propenoic acid, oxydi-2,1-ethanediyl ester
15625-89-5	1-5%	2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester

**4 FIRST AID MEASURES**

**Inhalation:** If affected, remove to fresh air.  
 If not breathing, give artificial respiration.

**Skin Contact:** Wash the affected area thoroughly with plenty of water and soap. Remove contaminated clothing and footwear immediately, and wash before reuse. Discard clothing and footwear which cannot be decontaminated.  
 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.  
 Get immediate medical attention.

**Ingestion:** DO NOT induce vomiting. If vomiting does occur, have victim lean forward to prevent aspiration. Rinse mouth with water. If victim is conscious give a cupful of water. Seek medical attention. Never give anything by mouth to an unconscious individual.

**5 FIRE FIGHTING MEASURES**

**Flash Point:** Greater than 200F  
 Hazardous gases/vapors produced in fire are carbon monoxide, carbon dioxide, phenolics.  
 Extinguishing Media: Water, foam, dry chemical, CO2.  
 Fire Fighting Instructions:  
 Full emergency equipment with self-contained breathing apparatus and full protective clothing should be worn by fire fighters. During a fire irritating, highly toxic gases may be generated by thermal decomposition or combustion. (See Section VIII) Emits toxic fumes under fire conditions. Isolate from heat, electrical equipment, sparks, and open flame. Closed container may explode when exposed to extreme heat. Wear neoprene gloves when handling refuse from fire.

## Wearcoat 481HP Clear Part A

**6 ACCIDENTAL RELEASE MEASURES****Containment Techniques**

Contain spill.

**Clean-Up Techniques**

Wear proper personal protective clothing and equipment.

Do not flush liquid into public sewer, water systems or surface waters.

Soak up large spill residue and small spills with an inert absorbent. Place into labeled, closed container; store in safe location to await disposal. Wash the spill area with soap and water. Dispose of in accordance with national and local regulations.

Change contaminated clothing and launder before reuse.

CAUTION: Spilled liquid and dried film may be slippery. Use care to avoid falls.

**7 HANDLING AND STORAGE****Handling Precautions:**

Avoid eye contact.

Avoid repeated or prolonged skin contact.

Avoid inhalation of aerosol, mist, spray, fume or vapor.

Avoid drinking, tasting, swallowing or ingesting this product.

Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities.

Provide eyewash fountains and safety showers in the work area.

Use under well ventilated conditions.

**Storage Requirements:**

Do not store in open, unlabeled or mislabeled containers.

Do not allow product to freeze.

Do not puncture or stack drums.

Keep container closed when not in use.

Do not reuse empty container without commercial cleaning or reconditioning.

**8 EXPOSURE CONTROLS/PERSONAL PROTECTION****Engineering Controls:**

Always provide effective general and, when necessary, local exhaust ventilation to draw spray, aerosol, fume, mist and vapor away from workers to prevent routine inhalation. Ventilation must be adequate to maintain the ambient workplace atmosphere below the exposure limit(s) outlined in the MSDS.

Ventilation guidelines/techniques may be found in publications such as Industrial Ventilation: American Conference of Governmental Industrial Hygienists, 1330 Kemper Meadow Drive, Cincinnati, OH, 45240 1634, USA.

**Personal Protective Equipment:**

Eye/Face Protection

Wear eye protection (chemical goggles or goggles and an 8-inch (minimum) full face shield where spilling and splashing may occur).

Skin Protection

Wear chemical resistant (impervious) gloves.

Respiratory Protection

Wear a respirator approved by NIOSH/MSHA (e.g., an organic vapor respirator, a full face air purifying respirator for organic vapors, or a self contained breathing apparatus) whenever exposure to aerosol, mist, spray, fume or vapor exceed the exposure limit(s) of any chemical substance listed in this MSDS. Use respirator in accordance with manufacturer's use limitations and OSHA standard 1910.134 (29CFR).

## Wearcoat 481HP Clear Part A

Components with workplace control parameters:

**Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8):**  
no data available

**2-Propenoic acid, oxydi-2,1-ethanediyl ester (4074-88-8) :**  
no data available

**2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5):**

TWA 1 mg/m3 USA. Workplace Environmental Exposure Levels (WEEL)  
Skin

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>Appearance:</b>	Translucent / clear	<b>Odor:</b>	Slight odor
<b>Physical State:</b>	Liquid	<b>Solubility:</b>	Negligible in water
<b>Spec Grav./Density:</b>	1.1-1.2	<b>Percent Volatile:</b>	0

## 10 STABILITY AND REACTIVITY

**Chemical Stability:** This product is stable

**Conditions to Avoid:** Heating above 300 ° F in the presence of air may cause slow oxidation decomposition and above 662 ° F may cause potentially violent decomposition.

**Materials to Avoid:** Strong oxidizers, acids, bases, and epoxy hardeners under uncontrolled conditions.

**Hazardous Decomposition:** Decomposition or combustion may generate irritating vapors, CO, CO<sub>2</sub>, phenolics, acrylates, and hazardous organic compounds.

**Hazardous Polymerization:** Hazardous polymerization will not occur.

## 11 TOXICOLOGICAL INFORMATION

**Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8):**

### Acute toxicity

#### Acute oral toxicity

Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. LD<sub>50</sub>, Rat, > 15,000 mg/kg

#### Acute dermal toxicity

Prolonged skin contact is unlikely to result in absorption of harmful amounts. LD<sub>50</sub>, Rabbit, 23,000 mg/kg

#### Acute inhalation toxicity

At room temperature, exposure to vapor is minimal due to low volatility. Vapor from heated material, mist or aerosols may cause respiratory irritation. The LC<sub>50</sub> has not been determined.

#### Skin corrosion/irritation

Prolonged contact may cause skin irritation with local redness.  
Repeated contact may cause skin irritation with local redness.

#### Serious eye damage/eye irritation

May cause eye irritation.  
Corneal injury is unlikely.

#### Sensitization

For similar material(s):

---

## Wearcoat 481HP Clear Part A

---

Has caused allergic skin reactions in humans.  
Has demonstrated the potential for contact allergy in mice.  
For respiratory sensitization:  
No relevant data found.

### **Specific Target Organ Systemic Toxicity (Single Exposure)**

Evaluation of available data suggests that this material is not an STOT-SE toxicant.

### **Specific Target Organ Systemic Toxicity (Repeated Exposure)**

Except for skin sensitization, repeated exposures to low molecular weight epoxy resins of this type are not anticipated to cause any significant adverse effects.

### **Carcinogenicity**

Many studies have been conducted to assess the potential carcinogenicity of diglycidyl ether of bisphenol A (DGEBA). Indeed, the most recent review of the available data by the International Agency for Research on Cancer (IARC) has concluded that DGEBA is not classified as a carcinogen. Although some weak evidence of carcinogenicity has been reported in animals, when all of the data are considered, the weight of evidence does not show that DGEBA is carcinogenic.

### **Teratogenicity**

Resins based on the diglycidyl ether of bisphenol A (DGEBA) did not cause birth defects or other adverse effects on the fetus when pregnant rabbits were exposed by skin contact, the most likely route of exposure, or when pregnant rats or rabbits were exposed orally.

### **Reproductive toxicity**

In animal studies, did not interfere with reproduction.

### **Mutagenicity**

In vitro genetic toxicity studies were negative in some cases and positive in other cases. Animal genetic toxicity studies were negative.

### **Aspiration Hazard**

Based on physical properties, not likely to be an aspiration hazard.

## **2-Propenoic acid, oxydi-2,1-ethanediyl ester (4074-88-8)**

Information on toxicological effects

Acute toxicity:

Oral LD50 LD50 - rat - 400-900 mg/kg

Inhalation LC50 4 h Acute toxicity estimate > 40 mg/l.

Dermal LD50 LD50 Dermal - rabbit - 180 mg/kg

Other information on acute toxicity

Skin corrosion/irritation: Skin - rabbit - Severe skin irritation

Serious eye damage/eye irritation: Eyes - rabbit - Causes serious eye damage. (Rabbit) (Causes eye burns.)

Respiratory or skin sensitization: Not a sensitizer. Guinea pig maximization test. (Guinea pig) No skin allergy was observed

Genotoxicity Assessment in Vitro:

No genetic changes were observed in laboratory tests using: bacteria, yeast

Developmental toxicity

Exposure during pregnancy. Oral (Mouse) Embryotoxic effects and adverse effects on the offspring were detected only at high maternally toxic doses

Human experience, Skin contact:

Skin allergy was observed .. (based on reports of occupational exposure to workers) Possible cross sensitization with other acrylates and methacrylates

---

## Wearcoat 481HP Clear Part A

---

### 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.

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. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract. Ingestion Toxic if swallowed. Skin Toxic if absorbed through skin. Causes skin burns. Eyes Causes eye burns.

Signs and Symptoms of Exposure: Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin., Cough, Shortness of breath, Headache, Nausea

Synergistic effects: no data available

Additional Information:

RTECS: AS9450000

### **2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)**

Information on toxicological effects

#### Acute toxicity:

LD50 Oral - rat - > 5,000 mg/kg

LC50 Inhalation - rat - male and female - 6 h - > 0.55 mg/l

LD50 Dermal - rabbit - 5,170 mg/kg

LD50 Intraperitoneal - rat - 55 mg/kg Remarks: Behavioral:Altered sleep time (including change in righting reflex).

Behavioral:Convulsions or effect on seizure threshold. Behavioral:Ataxia.

Skin corrosion/irritation: Causes mild skin irritation. (Rabbit) Irritation Index: 2.2 - 3.81 8. (4 h)

Serious eye damage/eye irritation: Eyes - rabbit Result: Irritating to eyes.

Respiratory or skin sensitisation: Maximisation Test - guinea pig Result: May cause sensitisation by skin contact.

Germ cell mutagenicity: Ames test S. typhimurium

Mutagenicity (micronucleus test) mouse - male and female 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

## Wearcoat 481HP Clear Part 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:

Repeated dose toxicity - rat - male and female - No observed adverse effect level -  $\geq$  200 mg/kg RTECS: AT4810000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.  
Stomach - Irregularities - Based on Human Evidence (Mequinol)

12

## ECOLOGICAL INFORMATION

**Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8):**

**Toxicity****Acute toxicity to fish**

Material is moderately toxic to aquatic organisms on an acute basis (LC50/EC50 between 1 and 10 mg/L in the most sensitive species tested).

LC50, Oncorhynchus mykiss (rainbow trout), semi-static test, 96 Hour, 2 mg/l

**Acute toxicity to aquatic invertebrates**

EC50, Daphnia magna (Water flea), static test, 48 Hour, 1.8 mg/l

**Acute toxicity to algae/aquatic plants**

ErC50, Scenedesmus capricornutum (fresh water algae), static test, 72 Hour, Growth rate inhibition, 11 mg/l

**Toxicity to bacteria**

IC50, Bacteria, 18 Hour, Respiration rates., > 42.6 mg/l

**Chronic aquatic toxicity****Chronic toxicity to aquatic invertebrates**

MATC (Maximum Acceptable Toxicant Level), Daphnia magna (Water flea), semi-static test, 21 d, number of offspring, 0.55 mg/l

**Persistence and degradability**

**Biodegradability:** Based on stringent OECD test guidelines, this material cannot be considered as readily biodegradable; however, these results do not necessarily mean that the material is not biodegradable under environmental conditions. 10-day Window: Not applicable

**Biodegradation:** 12 %

**Exposure time:** 28 d

**Method:** OECD Test Guideline 302B or Equivalent

**Theoretical Oxygen Demand:** 2.35 mg/mg Estimated.

**Photodegradation**

**Test Type:** Half-life (indirect photolysis)

**Sensitizer:** OH radicals

**Atmospheric half-life:** 1.92 Hour

**Method:** Estimated.



## Wearcoat 481HP Clear Part A

**Bioaccumulative potential**

**Bioaccumulation:** Bioconcentration potential is moderate (BCF between 100 and 3000 or Log Pow between 3 and 5).

**Partition coefficient: n-octanol/water(log Pow):** 3.242 at 25 °C Estimated.

**Mobility in soil**

Potential for mobility in soil is low (Koc between 500 and 2000). Given its very low Henry's constant, volatilization from natural bodies of water or moist soil is not expected to be an important fate process.

**Partition coefficient(Koc):** 1800 - 4400 Estimated.

**2-Propenoic acid, oxydi-2,1-ethanediyl ester (4074-88-8)**

Information on ecological effects

Toxicity: no data available

Persistence and degradability: no data available

Bioaccumulative potential: no data available

Mobility in soil: no data available

PBT and vPvB assessment: no data available

Other adverse effects: no data available

**2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5)**

Information on ecological effects

Toxicity:

Toxicity to fish static test LC50 - *Leuciscus idus* (Golden orfe) - 1.47 mg/l - 96 h. (DIN 38412)

Toxicity to daphnia and other aquatic invertebrates static test LC50 - *Daphnia magna* (Water flea) - 19.9 mg/l - 48 h.

Toxicity to algae static test EC50 - *Desmodesmus subspicatus* (*Scenedesmus subspicatus*) -: 4.86 mg/l - 96 h

Persistence and degradability: Biodegradability aerobic - Exposure time 28 d Result: 82 - 90 % - Readily biodegradable. (OECD Test Guideline 301B)

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

13

**DISPOSAL CONSIDERATIONS**

Consult with the US EPA Guidelines listed in 40 CFR Part 261.3 for the classifications of hazardous waste prior to disposal. Furthermore, consult with your state and local waste requirements or guidelines, if applicable, to ensure compliance. Arrange disposal in accordance to the EPA and/or state and local guidelines.

Liquids can not be disposed of in a landfill.

Contaminated packaging: Dispose of as unused product.



Wearcoat 481HP Clear Part A

<b>14</b>	<b>TRANSPORT INFORMATION</b>
-----------	------------------------------

This product is not regulated for ground or air transportation.

<b>15</b>	<b>REGULATORY INFORMATION</b>
-----------	-------------------------------

Component (CAS#) [%] - CODES

-----  
 Oxirane, 2,2'-[(1-methylethylidene)bis(4,1-phenyleneoxymethylene)]bis-, homopolymer (25085-99-8) [70-80%] TSCA

2-Propenoic acid, oxydi-2,1-ethanediy l ester (4074-88-8) [5-10%] TSCA

2-Propenoic acid, 2-ethyl-2-[[[(1-oxo-2-propenyl)oxy]methyl]-1,3-propanediyl ester (15625-89-5) [1-5%] TSCA

Regulatory CODE Descriptions

-----  
 TSCA = Toxic Substances Control Act

<b>16</b>	<b>OTHER INFORMATION</b>
-----------	--------------------------

**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.