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**Cerakote C-Series Coatings**

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**1 PRODUCT AND COMPANY IDENTIFICATION**

**Product Identifier:** Cerakote C-Series Coatings  
**Common Name:** Ambient-Cure Ceramic-Based Coatings  
**Revision Date:** 01/07/2021  
**Version:** 7.1

**Supplier Details:** NIC Industries, Inc  
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**2 HAZARDS IDENTIFICATION****Classification of the Substance or Mixture****GHS Classification in Accordance with 29 CFR 1910 (OSHA HCS):**

Physical, Flammable Liquids, 2  
Health, Acute toxicity, 4 Oral  
Health, Skin corrosion/irritation, 1 B  
Health, Respiratory or skin sensitization, 1 Skin  
Health, Serious Eye Damage/Eye Irritation, 2 A  
Health, Specific target organ toxicity - Single exposure, 3  
Health, Carcinogenicity, 2  
Environmental, Hazards to the aquatic environment - Chronic, 3

**GHS Label Elements, Including Precautionary Statements**

**GHS Signal Word: DANGER**

**GHS Hazard Pictograms:****GHS Hazard Statements:**

H225 - Highly flammable liquid and vapour  
H302 - Harmful if swallowed  
H314 - Causes severe skin burns and eye damage  
H317 - May cause an allergic skin reaction  
H319 - Causes serious eye irritation  
H336 - May cause drowsiness or dizziness  
H351 - Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard)  
H412 - Harmful to aquatic life with long lasting effects

**GHS Precautionary Statements:**

P201 - Obtain special instructions before use.  
P202 - Do not handle until all safety precautions have been read and understood.  
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P210 - Keep away from heat/sparks/open flames/hot surfaces.

P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ ventilating/ lighting/ equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing dust/ fume/ gas/ mist/ vapours/ spray.  
P264 - Wash skin thoroughly after handling.  
P271 - Use only outdoors or in a well-ventilated area.  
P280 - Wear protective gloves/ protective clothing/ eye protection/ face protection.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P281 - Use personal protective equipment as required.  
P303 + P361 + P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
P303 + P361 + P353 - IF ON SKIN (or hair): Remove/ Take off immediately all contaminated clothing. Rinse skin with water/ shower.  
P304 + P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing.  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.  
P312 - Call a POISON CENTER or doctor/ physician if you feel unwell.  
P321 - Specific treatment (see supplemental first aid instructions on this label).  
P332 + P313 - If skin irritation occurs: Get medical advice/ attention.  
P337 + P313 - If eye irritation persists: Get medical advice/ attention.  
P362 - Take off contaminated clothing and wash before reuse.  
P370 + P378 - In case of fire: Use ... to extinguish.  
P370 + P378 - In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
P403 + P235 - Store in a well-ventilated place. Keep cool.  
P405 - Store locked up.  
P501 - Dispose of contents/ container to an approved waste disposal plant.

### Hazards not Otherwise Classified (HNOC) or not Covered by GHS

**Route of Entry:** Inhalation, Ingestion, Skin Absorption, Eye Contact  
**Target Organs:** Respiratory System, Integumentary System, Digestive System and Nervous System.  
**Inhalation:** May cause moderate irritation of the upper respiratory tract. May produce symptoms of CNS depression (headaches, dizziness, nausea, loss of balance, drowsiness) and CNS stimulation (shaking, tremors). Severe overexposure may cause severe CNS depression symptoms such as fatigue or loss of concentration.  
**Skin Contact:** May cause moderate skin irritation.  
**Eye Contact:** May cause irritation and pain.  
**Ingestion:** Harmful by ingestion. May be irritating to the gastrointestinal tract, cause gastric distress and stomach pains.

## 3 COMPOSITION/INFORMATION OF INGREDIENTS

Chemical Ingredients:		
CAS#	%	Chemical Name:
*****	0-35%	Ceramic-based Pigments and Additives
98-56-6	30-60%	PCBTF Oxsol (parachlorobenzotrifluoride)
*****	0-2%	Rheology Modifier
13463-67-7	0-15%	Titanium dioxide
1333-86-4	0-2%	Carbon black
*****	15-40%	Ambient-Cure Refractory Resin

\*Trade Secret: In accordance with OSHA Hazard Communication Standard 29 CFR 1910.1200(i), and in accordance with the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS), the specific chemical identity and/or exact percentage (concentration) of composition has been withheld as a Trade Secret.

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as significantly hazardous to health or the environment and hence require reporting in this section.

## 4 FIRST AID MEASURES

**Inhalation:** If product mist or vapor causes respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. If unconscious, maintain an open airway. Loosen tight clothing such as a collar, tie, belt, or waistband. Contact a doctor, emergency personnel, or a poison control center if the victim feels unwell.

**Skin Contact:** Flush skin with large amounts of water for at least 15 minutes while removing contaminated clothing. Wash the affected area with soap and water and continue rinsing. Wash contaminated clothing and shoes thoroughly before reuse. If irritation persists, seek medical attention.

**Eye Contact:** Immediately flush eyes with large amounts of water or saline solution for at least 15 minutes, occasionally lifting the upper and lower lids. Remove contact lenses, if present and easy to do, after first 2 minutes and continue rinsing. If irritation persists, seek medical advice, preferable from an ophthalmologist.

**Ingestion:** Rinse mouth with water if the victim is conscious. Remove dentures, if present. DO NOT induce vomiting unless directed to do so by medical personnel. Vomiting may occur spontaneously. To prevent aspiration of material into the lungs, lay the victim on one side with the head lower than the waist. Never give anything by mouth to an unconscious or convulsing person. Do not leave the victim unattended. Seek immediate medical attention or call a poison control center.

## 5 FIRE FIGHTING MEASURES

**Flammability:** Flammable Liquid  
**Flash Point:** Flammable liquid, but will not sustain combustion.  
**Flash Point Method:** Closed cup.  
**Extinguishing Media:** Carbon dioxide, dry chemical powder, foam or alcohol foam.

**Fire Fighting Procedures:**  
Evacuate all unnecessary personnel. Shut down motors, pumps, electrical service, and eliminate sources of ignition if safe to do so. Use water spray to cool containers and avoid pressure build-up (do not allow water to mix with product). If fire occurs, isolate area, contain and eliminate fire, then dispose of debris in accordance with official regulations. Stay upwind of material at all times. Wear self-contained breathing apparatus and full protective clothing. May release dense black smoke containing hazardous products of combustion.

**Fire and Explosion Hazard:**  
Contains possibly combustible materials. Over-heated containers may rupture. Fumes may be flammable/explosive in air when in the presence of an ignition source. Vapors may travel a significant distance to a source of ignition and flash back.

**Sensitivity of Static Charge:**  
Electrostatic charge may build up during handling. Grounding of equipment is required.

## 6 ACCIDENTAL RELEASE MEASURES

### **Personal precautions, protective equipment, and emergency procedures:**

Evacuate non-essential personnel. Ventilate the area. Remove all sources of ignition. Wear appropriate protective clothing and equipment designated in Section 8.

### **Environmental Precautions:**

Contain liquids and prevent discharge into streams and sewers, control or stop the loss of volatile material to the atmosphere. Do not apply water to the spill. Spills should be reported, if required, to the appropriate local, state, or federal agencies.

### **Methods and materials for containment and cleaning up:**

Clean up spills immediately. Cover drains and contain spill. Cover spill with a large quantity of inert absorbent. Do not use combustible material such as sawdust. Collect material using non-sparking tools and place into an approved container(s) for proper disposal. Observe possible material restrictions. Do not allow material or runoff from rinsing contaminated areas to enter floor drains or storm drains and ditches that lead to waterways. Dispose of via a licensed waste disposal contractor

## 7 HANDLING AND STORAGE

**Handling Precautions:** This material is rated as flammable.  
Avoid vapor formations and use with adequate ventilation.  
Avoid breathing fumes.  
Vapors are heavier than air and will tend to collect in low areas. Avoid use in confined spaces.  
Avoid bodily contact with material.  
Wear appropriate personal protective equipment.  
Wash thoroughly after handling, avoid contact with eyes.  
No eating, drinking or smoking near areas where substance is handled, processed or stored.  
Flammable vapours may form explosive mixtures in the air.  
Ground coating equipment and containers at all times.  
Use non sparking tools.  
Isolate, vent, drain, wash and purge systems or equipment before maintenance or repair.  
Clean spills immediately.

**Storage Requirements:** Keep container properly closed and properly labeled. Store in accordance with local regulations. Store in dry, cool, and well-ventilated areas. Do not store in temperatures below 50F or above 77F. Keep away from incompatible materials, food, and drink. Keep away from heat and ignition sources. Avoid excessive aging. Transfer only to approved containers having correct labeling. Keep containers tightly closed when not in use. Protect containers against physical damage. Containers that have been opened must be carefully resealed and kept upright to prevent spillage. Containers are hazardous when empty as they contain product residues. Do not allow cross-contamination, and keep away from incompatible materials. Use appropriate containment to avoid environmental contamination. Vent periodically, if needed, to release head pressure. Ventilate enclosed areas. Avoid shock and friction. Avoid freezing. Keep out of reach of children.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Engineering Controls:** Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable.

**Personal Protective Equipment:**

Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be obtained from the representative supplier.

**JS OSHA PEL Carbon Black:**

3.5 mg/m<sup>3</sup>, TWA

**JS OSHA PEL Titanium Dioxide:**

15 mg/m<sup>3</sup>, TWA

**Hygiene measures:**

Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking, smoking, or using the restroom.

**Eye/Face protection:**

Wear safety glasses with unperforated side shields or protective splash goggles during use.

**Hand protection:**

Wear gloves recommended by glove supplier for protection against materials in Section 3. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period.

**Skin protection:**

Wear protective clothing. Wear protective boots if the situation requires.

**Respiratory protection:**

Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced 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). Follow OSHA respirator regulations found in 29 CFR 1910.134 or European standard EN 149.

**Environmental exposure controls:**

Do not empty into drains.

PPE must not be considered a long-term solution to exposure control. PPE usage must be accompanied by employer programs to properly select, maintain, clean, fit, and use. Consult a competent industrial hygiene resource to determine hazard potential and/or the PPE manufacturers to ensure adequate protection.

**9****PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance:</b>	Colored or clear liquid paint/coating	<b>Odor:</b>	Solvent-like.
<b>Physical State:</b>	Liquid	<b>Molecular Formula:</b>	Not available.
<b>Odor Threshold:</b>	Not available	<b>Solubility:</b>	Not available.
<b>Particle Size:</b>	Not available.	<b>Softening Point:</b>	Not available.
<b>Spec Grav./Density:</b>	1.0 - 1.5	<b>Percent Volatile:</b>	Not available.
<b>Viscosity:</b>	5-500 Cp.	<b>Heat Value:</b>	Not available.
<b>Saturated Vapor Concentration:</b>	Not available.	<b>Freezing/Melting Pt.:</b>	Not available.
<b>Boiling Point:</b>	Not available.	<b>Flash Point:</b>	42.8°C (109.04°F)
<b>Flammability:</b>	Flammable Flammable	<b>Octanol:</b>	Not available.
<b>Partition Coefficient:</b>	Not available.	<b>Vapor Density:</b>	6.2 (Air=1)
<b>Vapor Pressure:</b>	Not available.	<b>VOC:</b>	Exempt.
<b>pH:</b>	NA, non-aqueous.	<b>Bulk Density:</b>	Not available.
<b>Evap. Rate:</b>	Not available.	<b>Auto-Ignition Temp:</b>	>500°C (932°F)
<b>Molecular weight:</b>	Not available.	<b>UFL/LFL:</b>	Not available.
<b>Decomp Temp:</b>	~124-degrees C		

**10****STABILITY AND REACTIVITY**

<b>Chemical Stability:</b>	Stable.
<b>Conditions to Avoid:</b>	Extreme temperatures, moisture, vapor formation and sources of ignition.
<b>Materials to Avoid:</b>	Strong oxidizing agents, strong acids, water and alkalines.
<b>Hazardous Decomposition:</b>	Chlorine-containing gases, fluorine-containing gases may be produced in products containing p-chlorobenzotrifluoride. Carbon dioxide and silicon oxides may be produced from all coating formulations.
<b>Hazardous Polymerization:</b>	Will not occur.

**11****TOXICOLOGICAL INFORMATION**

NTP Carcinogen: No

IARC Monographs: No

OSHA Regulated: No

Not known to contain any ingredients recognized as carcinogens by the National Toxicology Program (NTP), the International Agency for Cancer Research (IARC) or the Occupational Safety and Health Administration (OSHA).

**Reported Human Effects:**

No human studies have been conducted with this material. The use of recommended protective equipment should minimize any adverse effects.

**Reported Animal Effects from various individual chemical components:**

Oral LD50, rat: >300-2000 mg/kg

Vapor LC50, rat 20 g/m<sup>3</sup>

Skin irritation, rabbit; corrosive.

Vapor LC50, rat 4211 ppm

Toxicological information may change depending on individual product.

**C SERIES COATINGS SUPPLEMENTAL INFORMATION:**

Contains < 16 wt% Cr(III) oxide-based pigments.

Toxicity information for chromium (III) oxide-based pigments:

Acute Toxicity (Oral LD50) > 5,000 mg/kg.

Acute Toxicity (Inhalation LC50) >/- 5.41 mg/l (dust/mist).

**Carcinogenic Effects:**

NTP: Not Listed

ACGIH: A4 - Not classifiable for human or animal.

IARC: 3 - Not classifiable for human.

OSHA: Not Listed.

NOTE: NTP, IARC and ACGIH found that "there is sufficient evidence for the carcinogenicity of chromium and certain chromium compounds both in humans and experimental animals." The chromium compounds that are considered carcinogenic are hexavalent chromium compounds [Cr(VI)]. The chromium oxide based pigments present in the NIC products listed above are all trivalent, refractory chromium compounds [Cr(III)], each containing 1ppm or less of leachable hexavalent chromium (</-0.0001%). The toxicity information stated above are for Cr(III) oxide-based C.I. Pigments as stated in SDS's provided by the pigment suppliers.

**Mutagenic Effects:**

Mutagenic for mammalian somatic cells. Mutagenic for bacteria and/or yeast. May cause damage to the following organs: upper respiratory tract, skin.

**12 ECOLOGICAL INFORMATION**

Water hazard Category 2: Contains materials toxic to fish. Avoid disposal in landfills and sewage systems. Avoid release into water sources.

**13 DISPOSAL CONSIDERATIONS**

The generation of waste should be avoided or minimized whenever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of split material and runoff contact with soil, waterways, drains and sewers.

**14 TRANSPORT INFORMATION**

Note: Transportation information provided is for reference only. The customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

**US DOT:**

UN 1263, Paint Related Material

Hazard Class: 3

Packing Group: III

IATA:  
UN 1263, Paint Related Material  
Hazard Class: 3  
Packing Group: III

ICAO:  
UN 1263, Paint Related Material  
Hazard Class: 3  
Packing Group: III

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## REGULATORY INFORMATION

[%] RQ (CAS#) Substance - Reg Codes

[0-35%] Ceramic-based Pigments and Additives (\*\*\*\*\*) TSCA

[30-60%] PCBTF Oxsol (parachlorobenzotrifluoride) (98-56-6) PROP65, TSCA

[0-2%] Rheology Modifier (\*\*\*\*\*)

[0-15%] Titanium dioxide (13463-67-7) MASS, OSHAWAC, PA, TSCA, TXAIR

[0-2%] Carbon black (1333-86-4) MASS, OSHAWAC, PA, PROP65, TSCA, TXAIR

[15-40%] Ambient-Cure Refractory Resin (\*\*\*\*\*)



### WARNING

This product can expose you to chemicals including PCBTF Oxsol (parachlorobenzotrifluoride), and Carbon black (airborne, unbound particles of respirable size), which are known to the State of California to cause cancer. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

Regulatory Code Legend

MASS = MA Massachusetts Hazardous Substances List

OSHA = OSHA Workplace Air Contaminants

PA = PA Right-To-Know List of Hazardous Substances

PROP65 = CA Prop 65

TSCA = Toxic Substances Control Act

TXAIR = TX Air Contaminants with Health Effects Screening Level

NIC Industries, Inc. coatings meet all air quality and regulatory requirements with respect to manufacturing and application. Specifically, the hardened finished product does not release any "volatile organic compounds" (VOC) under any ambient conditions.

U.S. TOXIC SUBSTANCES CONTROL ACT: All components of this product are on the TSCA Inventory or are exempt from the TSCA Inventory requirements under 40 CFR 720.30.

RoHS-2: NIC Industries, Inc. products comply with the EU RoHS-2 Directive and Amendments, including 2006/122/EC.

REACH: NIC Industries, Inc. products comply with EU REACH Regulation EC No. 1907/2006.

TSE/BSE: NIC Industries, Inc. products comply with European Parliament and Council Regulation (EC) No. 999/2001.

Conflict Minerals: No NIC Industries, Inc. products contain any "conflict minerals" as defined in Section 1502 of the Dodd-Frank Act.

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## OTHER INFORMATION

U.S. Federal Regulations:

OSHA Standard 29 CFR 1910.1200 requires that information be provided to employees regarding the hazards of chemicals by means of hazard communication program including labeling, material safety data sheets, training and access to written records. We request that you (as it is your legal duty to) make all information in this Safety Data Sheet available to all your employees.

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