

Product Identification Section 1

Product name            Hardener  
Part number            Y0-005  
Synonyms                Organic peroxide & Aromatic compounds blend  
Product usage           Polymerization initiator– Professional Use ONLY  
Company                 Florock Polymer Flooring  
                                 1120 W Exchange  
                                 Chicago, IL 60609  
Phone                    773-376-7132  
Chemtrec                800-424-9300

Hazard Identification Section 2

GHS Classifications    **Health Hazards**  
Acute Toxicity, Oral, Category 4  
Acute Toxicity, Dermal, Category 4  
Acute Toxicity, Inhalation, Category 3\*  
Skin Corrosion, Category 1C  
Eye Damage, Category 1  
Skin Sensitization, Category 1B  
Reproductive Toxicity, Category 2  
Aspiration Hazard, Category 1  
  
**Physical Hazards**  
Organic Peroxide, Type F  
Flammable Liquid, Category 4  
  
**Environmental Hazards**  
Acute Aquatic Toxicity, Category 2  
Chronic Aquatic Toxicity, Category 2  
  
Flammable Liquids - Category 3  
Skin Irritation - Category 2  
Serious eye damage/eye irritation - Category 2A  
Carcinogen - Category 2

Signal word             **Danger**

Pictograms



Hazard statements	<p>H227: Flammable liquid  H242: Heating may cause a fire  H302: Harmful if swallowed  H304: May be fatal if swallowed and enters airways  H312: Harmful in contact with skin  H314: Causes severe skin burns and eye damage  H318: Causes serious eye damage  H331: Toxic if inhaled  H361: Suspected of damaging fertility or the unborn child  H401: Toxic to aquatic life  H411: Toxic to aquatic life with long lasting effects</p>
Precautionary statements	<p>P201: Obtain special instructions before use  P202: Do not handle until all safety precautions have been read and understood  P210: Keep away from heat/sparks/open flames/hot surfaces. – No Smoking  P233: Keep container tightly closed  P234: Keep only in original container  P235: Keep cool  P260: Do not breathe vapours  P261: Avoid breathing vapours  P263: Avoid contact during pregnancy/while nursing  P264: Wash skin thoroughly after handling  P270: Do not eat, drink or smoke when using this product  P271: Use only outdoors or in a well-ventilated area  P272: Contaminated work clothing should not be allowed out of the workplace  P273: Avoid release to the environment  P280: Wear protective gloves/protective clothing/eye protection/face protection  P281: Use personal protective equipment as required.  P301 + P310 + P312: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.  P301 + P330 + P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.  P302 + P352: IF ON SKIN: Wash with plenty of soap and water.  P303 + P361 + P353: IF ON SKIN (hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  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.  P308 + P313: IF exposed or concerned: Get medical advice/attention.  P311: Call a POISON CENTER or doctor/physician.  P321: Specific treatment found in supplemental First Aid section of this SDS (Section 4).  P322: Specific measures found in supplemental First Aid section of this SDS (Section 4).  P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.  P363: Wash contaminated clothing before reuse.  P391: Collect Spillage.  P403 + P233: Store in a well-ventilated place. Keep container tightly closed.  P405: Store locked up.  P410: Protect from sunlight.  P411 + P235: Store at temperatures not exceeding 30°C (86°F). Keep cool.  P501: Dispose of contents/container in accordance with local, regional, and federal regulations</p>

< 15% of this product consists of ingredients of unknown acute inhalation toxicity

Additional hazard  
Information                      *No additional data at this time*

**Composition Information of Ingredients** **Section 3**

Component	CAS No.	Weight %
Cumene Hydroperoxide	80-15-9	60 – 83
Cumene (Isopropylbenzene)	98-82-8	10 – 30
Dimethyl Phenyl Carbinol	617-94-7	5 – 10
Isopropenylbenzene	98-83-9	1 – 5
Acetophenone	98-86-2	1 – 5

*Where a range is displayed or the exact percentage of the component in the composition has been withheld it is considered a trade secret. Ingredients not listed on this SDS are considered to be non-hazardous. The above listed components are OSHA hazardous materials which contribute to this products' GHS Hazard Categorization as prescribed in OSHA's Hazard Communication 29 CFR 1910.1200.*

**First Aid Measures** **Section 4**

**General**                      Consult a physician. Show the physician this SDS. Move out of dangerous area immediately.

**Inhalation**                      Immediately move outdoors or to fresh air. If breathing is difficult, administer oxygen or give artificial respiration. Seek immediate medical attention and keep individual warm and quiet.

**Eyes**                              Immediately flush eyes gently with plenty of water for at least 15 minutes and remove contact lenses, if present and easy to do so. Rinse beneath eyelids by holding eyelids apart with clean fingers while rinsing. Seek immediate medical attention.

**Ingestion**                      Immediately call a POISON CENTER or doctor/physician and rinse mouth. DO NOT induce vomiting as this material is an aspiration hazard. If individual is drowsy or unconscious, have the individual lie down on their left side with their head down. Do not give individual anything by mouth if individual is unconscious. If vomiting occurs, lean individual forward so as to minimize aspiration. Do not leave individual unattended.

**Skin**                                Immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. If irritation persists, seek medical attention. Wash contaminated clothing before reuse.

**Most Important Symptoms/Effects**

**Inhalation**                      Irritation in the respiratory tract, nausea, vomiting, gastritis, rash, irritation to burns

Skin	Severe skin irritation, allergic skin reaction, redness, burning, drying, cracking, severe skin damage, & may be fatal if large quantities are absorbed through the skin for prolonged contact.
Eyes	Serious eye irritation, stinging sensation, tearing, redness, and swelling of the eyes.
Ingestion	Stomach or intestinal irritation, headache, nausea, vomiting, irritation of the throat, dizziness, drowsiness, weakness, fatigue, unconsciousness, lack of coordination, & confusion. Swallowing this material may be harmful or fatal as material may enter lungs and cause lung damage.

#### Fire Fighting Measures

Section 5

Extinguishing media	Use water spray or carbon dioxide.
Extinguishing methods	Water may be used to keep exposed containers cool, and to keep flammable structures wet.
Special protective equipment	Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA).
Special hazards	Aromatic derivatives, Carbon monoxide, Carbon dioxide
Important additional information	Contact with incompatible materials or exposure to temperatures exceeding the Self-Accelerating Decomposition Temperature (SADT) of 82°C (180°F) may result in self-accelerating decomposition thus releasing flammable vapors which may auto-ignite. Fight fire with carbon dioxide or large amounts of water from a safe distance. Cool closed containers that have been exposed to fire with water spray.

#### Accidental Release Measures

Section 6

Personal precautions	<i>Protective equipment:</i> Recommended to wear chemical splash goggles & resistant gloves, such as polyvinyl alcohol-based gloves, and discard of gloves that show tears, pinholes, or signs of wear. Wear proper garments to prevent skin exposure, such as long-sleeves and pants. <i>Personal precautions:</i> Persons not wearing proper PPE should be excluded from the area of contamination until clean-up has been completed. Ensure adequate ventilation. Eliminate all ignition sources and pay attention to the spreading of gases, especially at ground level. <i>Emergency procedures:</i> Evacuate personnel to safe areas.
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Methods for clean up and disposal	Contained spilled material with inert, non-combustible absorbent materials (e.g. sodium bicarbonate, calcium carbonate, sand, earth, diatomaceous earth). DO NOT use vermiculite or peat moss for clean-up. Sweep or scoop up using non-sparking tools and transfer to a suitable container for disposal according to proper federal, state, and local regulations. Clean contaminated floors and objects thoroughly with water and detergents, observing regional environmental regulations.
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<b>Handling and Storage</b>	<b>Section 7</b>
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Precautions for safe handling	Keep containers away from heat, sparks, flames, and other ignition sources. Contact with incompatible materials or exposure to temperatures exceeding the Self-Accelerating Decomposition Temperature (SADT) of 82°C (180°F) may result in self-accelerating decomposition which releases flammable vapors which may auto-ignite. Do not cut, drill, grind, or weld on or near this container. Do not reuse container as it may retain hazardous product residue. Use material only with adequate ventilation and avoid breathing vapors. Refer to Section 8 of this SDS for proper PPE.
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As with any chemical product, use good laboratory/workplace procedures. Do not cut, puncture, or weld on or near the container. Use under well-ventilated conditions. Wash thoroughly after handling this product. Always wash up before eating, smoking or using the facilities.

Conditions for safe storage, including incompatibilities	Keep containers away from heat, sparks, flames, and other ignition sources. Contact with incompatible materials (Strong acids, Strong bases, Sulfur compounds, Reducing agents, Oxidizing agents, Heavy metals, Amines, Rust) or exposure to temperatures exceeding the Self-Accelerating Decomposition Temperature (SADT) of 82°C (180°F) may result in self-accelerating decomposition which releases flammable vapors which may auto-ignite. Do not cut, drill, grind, or weld on or near this container. Do not reuse container as it may retain hazardous product residue. Use material only with adequate ventilation and avoid breathing vapors. Refer to Section 8 of this SDS for proper PPE.
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<b>Exposure Controls/Personal Protection</b>	<b>Section 8</b>
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<b>Cumene (Isopropylbenzene)</b>	<b>CAS # 98-82-8</b>	
OSHA	Permissible Exposure Limit (PEL)	50 ppm (245 mg/m <sup>3</sup> )
ACGIH	Threshold Limiting Value (TLV)	50 ppm (245 mg/m <sup>3</sup> )
NIOSH	Recommended Exposure Limit (REL)	50 ppm (245 mg/m <sup>3</sup> )
<b>Isopropylbenzene</b>	<b>CAS # 98-83-9</b>	
OSHA	Permissible Exposure Limit (PEL)	100 ppm (480 mg/m <sup>3</sup> )

ACGIH	Threshold Limiting Value (TLV)	50 ppm (240 mg/m <sup>3</sup> )
NIOSH	Recommended Exposure Limit (REL)	50 ppm (240 mg/m <sup>3</sup> )
<b>Acetophenone</b>	<b>CAS # 98-86-2</b>	
OSHA	Permissible Exposure Limit (PEL)	None Established
ACGIH	Threshold Limiting Value (TLV)	10 ppm (49 mg/m <sup>3</sup> )
NIOSH	Recommended Exposure Limit (REL)	None Established

**Engineering Controls**  
Ventilation

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposures below permissible exposure limits. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

**Personal Protective Equipment**

**Eye/Face protection** Recommended to wear a face shield along with tight fitting, chemical splash when there is potential for the exposure of the eyes to the liquid, vapor or mist. Have a suitable eye wash station or bottle nearby in case of splashing into the eyes.

**Skin protection** Recommended to wear chemical resistant gloves and discard of gloves that show tears, pinholes, or signs of wear. Consult glove manufacturers to determine appropriate glove materials for the given application. Recommended to wear chemical resistant clothing, such as a rubber apron and rubber boots, especially when splashing may occur. It is minimally recommended to wear long-sleeved clothing, pants and The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. proper foot covering in order to prevent direct skin contact with the product. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use.

**Respiratory protection** A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be appropriate under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Protection provided by air purifying respirators is limited. Use a positive pressure, air-supplied respirator if there is any potential for uncontrolled release, exposure levels are not known or any other circumstances where an air-purifying respirator may not provide adequate protection.

**Other protective considerations** Ensure adequate ventilation, especially in confined areas. Consider all potential hazards of this material, applicable exposure limits, job activities, and other substances in the work place when designing engineering controls and selecting PPE. Ensure that eyewash stations and safety showers are proximal to the work location. It is ultimately

the responsibility of the employer to follow regulatory guidelines established by local authorities. Wash thoroughly after handling. Wash hands before eating, smoking, or touching the facial area.

## Physical/Chemical Properties

## Section 9

**Appearance:** Faint yellow liquid

**Odor:** Aromatic

**Odor Threshold:** No data available

**pH:** > 5

**Melting/freezing point:** No data available **Initial boiling point:** 127°F (53°C) **Boiling range:** No data available

**Flash point (Tag closed cup):** 174°F (79°C)

**Evaporation rate:** No data available

**Flammability: Lower Limit:** 0.9% (V) **Upper Limit:** 6.5% (V)

**Vapor pressure:** No data available

**Vapor density:** > 1 (Air = 1)

**Relative density:** 1.05 g/cm<sup>3</sup> (8.75 lb/gal) at 68°F (20°C)

**Solubility in water:** 1.6 g/l at 68°F (20°C)

**Partition coefficient (n-octanol/water):** No data available

**Auto-ignition temperature:** 410°F (210°C)

**Decomposition temperature:** 180°F (82°C) [Self-Accelerating Decomposition Temperature (SADT)]

**Viscosity (dynamic):** 13 cPs at 68°F (20°C)

## Stability and Reactivity

## Section 10

Chemical stability	Stable under recommended storage conditions
Hazardous reactions	Avoid exposure to temperatures above the published SADT as well as to incompatible materials. Product will not undergo hazardous polymerization.
Conditions to avoid	Do not allow material to be stored above the Self-Accelerating Decomposition Temperature (SADT). This decomposition will generate flammable vapors which may auto-ignite. The length of time required for decomposition is dependent on how much the SADT has been exceeded as well as the length of time.
Incompatibility	Strong acids, Strong bases, Sulfur compounds, Reducing agents, Oxidizing agents, Heavy metals, Amines, Rust.
Hazardous decomposition products	Toxic & Flammable Aromatic derivatives, Carbon monoxide, Carbon dioxide.

## Toxicological Information

## Section 11

Routes of exposure    Inhalation, skin, eyes, ingestion

Symptoms of exposure	Metallic taste, stomach or intestinal irritation, nausea, vomiting, diarrhea, irritation of the nose, throat and airways, central nervous system depression, dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness, lack of coordination, confusion and liver damage
Effects of exposure	This substance causes severe skin burns and eye damage if exposed through skin or eye contact. This substance is harmful if inhaled and may result in headaches, nausea, dizziness, drowsiness, or unconsciousness. If swallowed, this substance may be harmful or fatal due to the entering of this substance into the lungs and causing serious lung damage. This substance may damage fertility or the health of the unborn child. This substance has not been classified as a potential carcinogen.
Carcinogenicity	OSHA: <b>No</b> International Agency for Research on Cancer (IARC): <b>No</b> ACGIH: <b>No</b> National Toxicology Program (NTP) Report on Carcinogens: <b>No</b>

#### Acute Toxicity Values

Acute toxicities are calculated based on component toxicities

Mixture: **Acute Oral Toxicity:** LD50 Rat: > 720 mg/kg

**Acute Dermal Toxicity:** LD50 Rat: > 1,500 mg/kg

**Acute Inhalation Toxicity:** LC50 Rat: 3.7 mg/l; 4 h\*

\* < 15% of this product consists of ingredients of unknown acute inhalation toxicity

#### Ecological Information Section 12

Keep out of sewers, drainage areas, and waterways. Report spills and atmospheric releases, as applicable, under Federal and State regulations. Product is not readily biodegradable.

#### Disposal Considerations Section 13

Dispose of container and unused contents in accordance with federal, state, and local requirements for hazardous materials. Packaging should be emptied as far as possible before disposal. Do not allow to enter the drainage or water system.

#### Transport Information Section 14

DOT Proper Shipping	
Name:	Organic Peroxide, Type F, Liquid n.o.s. (Cumyl Hydroperoxide)
Packing Group:	II
DOT Hazard Class:	5.2



DOT UN/NA Number:	UN3109
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**IMDG (Marine) SHIPPING CLASSIFICATION:**

IMDG CODE: 5.2  
 UN NUMBER: UN3109 MARINE POLLUTANT: Yes EmS: F-J; S-R  
 IMDG PACKING GROUP: II HAZARD LABEL: 5.2

**Description of the goods**

ORGANIC PEROXIDE, TYPE F, LIQUID N.O.S. (CUMYL HYDROPEROXIDE)

**IATA (Air) SHIPPING CLASSIFICATION:**

ICAO/IATA-DGR: 5.2 UN NUMBER: UN3109  
 HAZARD LABEL: Organic Peroxide & Keep away from heat IATA-packing instructions – Passenger: 570  
 IATA -max. quantity – Passenger: 10 L IATA – packing instructions – Cargo: 570 IATA –max. quantity – Cargo: 25 L  
 IAO packing group: II

Regulatory Information	Section 15
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California Proposition 65

**WARNING:** This product contains chemicals known to the state of California to cause cancer, birth defects, and other reproductive harm.

All components of this product conform to the following national inventory requirements. US TSCA, EU EINECS and Canada DSL

**SARA Title III**

**Section 302 – Extremely Hazardous Chemicals**

The following ingredients are subject to the supplier notification requirements of Section 302 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37  
*None Listed*

**Section 313 – Toxic Chemicals**

The following ingredients are subject to the supplier notification requirements of Section 313 of the Superfund Amendments and Reauthorization Act (SARA/EPCRA) and the requirements of 40 CFR Part 37

Component	CAS #	Weight %	CERCLA RQ
Cumene Hydroperoxide	80-15-9	60 – 83	10
Cumene (Isopropylbenzene)	98-82-8	10 – 30	5,000
Acetophenone	98-86-2	1 – 5	5,000

**OTHER FEDERAL REGULATIONS**

Components of this product are subject to RCRA Hazardous Waste requirements.  
 Clean Air Act (CAA) Hazardous Air Pollutants requirements and OSHA Process Safety Management (PSM) high hazard requirements.

The components of this product may be included on the various state hazardous materials lists noted below.

- California Hazardous Substances List
- Delaware Air Quality Management List
- Idaho Air Pollutants List
- Illinois Toxic Air Contaminants List
- Maine Hazardous Air Pollutants List
- Massachusetts Hazardous Substances List
- Michigan Critical Materials List
- Minnesota Hazardous Substances List
- New Jersey RTK Hazardous Substances List
- New Jersey TCPA Extremely Hazardous Substances List
- New York List of Hazardous Substances
- North Carolina Toxic Air Contaminants List

Pennsylvania Hazardous Substances List  
Washington Permissible Exposure Air Contaminants List  
West Virginia Air Toxic Pollutants List  
Wisconsin Hazardous Air Contaminants List

**Note:** Entries under Section 15 are not intended to be all inclusive of Federal and State laws and regulations. Please consult the appropriate agencies for further clarification of any requirements.

## Other Information

## Section 16

Classification and hazards statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS). Regulations in individual countries/regions may determine which classifications and hazard statements are applicable based on adopted hazard classes and categories. Precautionary statements are listed according to the United Nations Globally Harmonized System of Classification and Labeling of Chemicals (GHS) - Annex III. Regulations in individual countries/regions may determine which statements are required on the product label. See product label for specifics.

The information provided in this **Safety Data Sheet** is correct to the best of our knowledge, information, and belief at the date of its publication. The information given is designed only as guidance for safe handling, use, processing, storage, transportation, disposal, and release. It is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process unless specified in the text.

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