

## SAFETY DATA SHEET

### PH-2C HARDENER

#### 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** PH-2C HARDENER

**PRODUCT CODE:** #PH-2C

**PRODUCT USE:** Hardener for Polyester 2 component coatings

**MANUFACTURER**

DUDICK, INC.

1818 MILLER PARKWAY

STREETSBORO, OH, 44241

330-562-1970

**24 HR. EMERGENCY TELEPHONE NUMBER**

**CHEM-TEL (US Transportation):** (800)255-3924

**CHEM-TEL (International Transportation) :** +01-813-248-0585

#### 2. HAZARDS IDENTIFICATION

**CLASSIFICATION:**

Acute Toxicity - Oral - Category 4

Skin Corrosive - Category 1

Organic Peroxides - Type D

Hazardous to the Aquatic Environment - Long Term - Category 2

Serious Eye Damage/Eye Irritation - Category 1

Flammable liquids - Category 4

**GHS LABEL ELEMENTS:**



**SIGNAL WORD:** Danger

**HAZARD STATEMENTS:**

H242 Heating may cause a fire

H314 Causes severe skin burns and eye damage.

H412 Harmful to aquatic life with long lasting effects.

H227 Combustible liquid

**PRECAUTIONARY STATEMENTS :**

P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

Store away from other materials.

Store at temperatures not exceeding 38°C/100°F. Keep cool.

P260 Do not breathe dust/fume/gas/mist/vapors/spray.

P370+P378 In case of fire: Use foam, dry chemical, or carbon dioxide for extinction.

P403+P235 Store in a well-ventilated place. Keep cool.

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

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P363 Wash contaminated clothing before reuse.  
P210 Keep away from heat/sparks/open flames/hot surfaces. — No smoking.  
P234 Keep only in original container.  
P264 Wash all contacted body parts 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+P330+P331 IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P303+P361+P353 IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.  
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.  
P310 Immediately call a POISON CENTER or doctor/physician.  
P220 Keep/Store away from clothing/combustible materials.  
P410 Protect from sunlight.

### 3. COMPOSITION/INFORMATION ON HAZARDOUS INGREDIENTS

Chemical Name	Weight %	CAS Number
2-Butanone peroxide	25% to 40%	1338-23-4

No further information available for this product.

### 4. FIRST AID MEASURES

**EYES:** Hold eyelids apart, initiate and maintain gentle and continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.  
**SKIN:** Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay. Initiate and maintain continuous irrigation until the patient receives medical care. If medical care is not promptly available, continue to irrigate for one hour.  
**INGESTION:** Do not induce vomiting. Rinse mouth. Never give anything by mouth to an unconscious person. Consult physician or poison center immediately.  
**INHALATION:** If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask etc.).  
Consult a physician after significant exposure. Move person to fresh air. If unconscious place in recovery position and seek medical advice.  
**NOTES TO PHYSICIAN:** No data available for this product.

### 5. FIRE FIGHTING MEASURES

**SUITABLE EXTINGUISHING MEDIA:** Water mist, alcohol resistant foam; Carbon Dioxide (CO<sub>2</sub>); use water to keep containers cool.  
Dry Chemical combined with peroxide may reignite fire.  
**UNSUITABLE EXTINGUISHING MEDIA:** High volume water jet.  
Dry Chemical combined with peroxide may reignite fire.  
**SPECIFIC HAZARDS IN CASE OF FIRE:** CAUTION: re-ignition may occur. Decomposition under effect of heating (See also Section Hazardous decomposition products). In case of fire and/or explosion do not breathe fumes. Dry Chemical combined with peroxide may reignite fire.  
Extinguish a small fire with powder or carbon dioxide then apply water to prevent re-ignition. Cool closed containers with water. Water used to extinguish a fire should not be allowed to enter the drainage system or water courses.

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**SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTION FOR FIRE FIGHTERS:** Wear self-contained breathing apparatus (SCBA) in positive pressure mode and full protective clothing.

## 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Isolate area; ensure adequate ventilation; remove all sources of ignition; use appropriate personal protection equipment; avoid breathing mist, vapors, spray; avoid contact with skin, eyes and clothing; keep unnecessary and unprotected personnel from entering the involved area.

**ENVIRONMENTAL PRECAUTIONS:** Halt the flow of material as soon as practical using appropriate barriers; Prevent contamination of soil and water. Prevent from spreading or entering into drains, ditches, waterways by using sand, earth or appropriate barriers.

**METHOD AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Dike spill to prevent runoff from entering drains, sewers, streams, etc. Wet spilled material with water and absorb with an inert absorbent material such as perlite, vermiculite, or sand. Sweep up using non-sparking tools and place in a clean polyethylene drum or a polyethylene pail. DO NOT place into a steel container, lined or unlined, as decomposition may occur. Treat any contaminated cardboard packaging as hazardous waste. Wet container with additional water prior to sealing. Use absorbent/absorbent material to solidify liquids. Clean up promptly by sweeping or vacuum. Wear protective equipment, including eye protection, to avoid exposure (see Section 8 for specific handling precautions).

## 7. HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge. Keep away from heat and sources of ignition.

**CONDITIONS FOR SAFE STORAGE, INCLUDING INCOMPATIBILITIES:** The stability of peroxide formulations is directly related to the shipping and storage temperature history. Cool storage at 80°F (27°C) or below is recommended for longer shelf life and stability. Prolonged storage at elevated temperatures of 100°F (38°C) and higher will cause product degradation, gassing and potential container rupture which can result in a fire and/or explosion. Store out of direct sunlight in a well ventilated area away from combustible and incompatible material.

DO NOT STORE WITH FOOD OR DRINK.

Refer to NFPA 400 Hazardous Materials Code from the National Fire Protection Association for additional storage information.

Further information

Store apart from other dangerous and incompatible substances.

Keep away from direct sunlight.

Keep containers tightly closed in a cool, well-ventilated place.

Keep away from strong acids, bases, heavy metals, salts, reducing agents and accelerators.

Contaminants (e.g. rust, dust, ash). Combustible materials. Dimethylaniline, cobalt naphthenate and other promoters, accelerators, reducing agents, or any hot material.

## 8. EXPOSURE CONTROLS\PERSONAL PROTECTION

### EXPOSURE LIMITS

Components	CAS	Limits
2-Butanone peroxide	1338-23-4	ACGIH; CLV (Ceiling Limit Value) - 0.2 ppm

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**ENGINEERING CONTROLS:** Both local exhaust and good general room ventilation must be provided not only to control exposure but also to prevent formation of flammable mixtures.

**PERSONAL PROTECTIVE EQUIPMENT**

**RESPIRATORY PROTECTION:** Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

**EYES PROTECTION:** Full face shield with goggles underneath.

**SKIN PROTECTION:** Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task.

Hand protection: Use chemical resistant gloves. Consult glove manufacturer for recommendations.

**WORK HYGIENIC PRACTICES:** Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating. Wash contaminated clothing before reuse. Eye wash stations and emergency showers should be available.

**OTHER USE PRECAUTIONS:** The type and degree of personal protective equipment will depend on the specific work operation. Eye wash stations and emergency showers should be available. Inspect and replace personal protective equipment at regular intervals; use professional care in their selection, use and care.

**COMMENTS:** None.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**PHYSICAL STATE:** Liquid

**COLOR:** Clear

**FLASH POINT AND METHOD:** 76 C CC

**AUTO-IGNITION TEMPERATURE:** Not Determined.

**BOILING POINT/RANGE:** Not Determined.

**MELTING POINT:** Not Determined.

**VAPOUR PRESSURE:** Not determined.

**VAPOUR DENSITY:** Heavier than air.

**SOLUBILITY:** Slight in water.

**ODOR/THRESHOLD:** Mild, characteristic.

**LOWER / UPPER FLAMMABLE LIMITS:** No data available for this product.

**DENSITY:** 1.1109

**EVAPORATION RATE:** Slower than ether.

**PARTITION COEFFICIENT:** Not determined.

**pH:** Not Applicable.

**DECOMPOSITION TEMPERATURE:** > 60° C/140° F, SADT (UN test H.4)

SADT possible at temperatures above approximately 60° C/140° F.

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** Stable under recommended storage conditions.

**POSSIBILITY OF HAZARDOUS REACTIONS:** Vapors may form explosive mixture with air.

**CONDITIONS TO AVOID:** Do not expose to temperatures above: 40°C

Heat, flames and sparks.

**MATERIALS TO AVOID:** Powdered metals, Organic materials, Heavy metal salts, metal salts, Combustible material, Acids, Alkalis, Reducing agents, Rust, charcoal, Amines, Copper, Lead, Cobalt/cobalt oxides

**HAZARDOUS DECOMPOSITION PRODUCTS:** Irritant, caustic, flammable, noxious/toxic gases and vapors can develop in the case of fire and decomposition

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## 11. TOXICOLOGICAL INFORMATION

### SIGNS AND SYMPTOMS OF OVEREXPOSURE:

#### ACUTE EFFECTS:

**EYE CONTACT:** Causes burns.

**SKIN CONTACT:** Causes burns.

**INHALATION:** Inhalation of vapors and/or aerosols in high concentration may cause irritation of respiratory system. Inhalation of aerosol may cause irritation to the upper respiratory tract. May cause nose, throat, and lung irritation. Can cause severe eye, skin and respiratory tract burns.

**INGESTION:** Can cause burns of mouth, throat, intestinal tract.

**TARGET ORGAN:** Not classified with regard to specific target organs

**CHRONIC EFFECTS:** This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. May cause allergic skin reaction, eye disease, skin disorders and allergies.

**TOXICITY VALUES:** Not determined

## 12. ECOLOGICAL INFORMATION

### PERSISTENCE AND DEGRADABILITY:

Not determined.

### BIO-ACCUMULATIVE POTENTIAL:

Not determined.

### MOBILITY IN SOIL:

Not determined.

### OTHER ADVERSE EFFECTS:

Not known.

### ECOTOXICOLOGICAL OTHER INFORMATION:

May be harmful to aquatic life

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** Dispose of according to local, state, and federal regulations through a licensed disposal facility.

## 14. TRANSPORT INFORMATION

**UN NUMBER:** 3105

**UN PROPER SHIPPING NAME:** Organic peroxide type D, liquid(Methyl ethyl ketone peroxide <= 45%)

**TRANSPORT HAZARD CLASS:**

5.2

**TRANSPORT HAZARD SUBCLASS:**

Not applicable.

**PACKING GROUP:** II

**MARINE POLLUTANT Y/N:**

No

**SPECIAL PRE-CAUTIONS:**

DOT:

No

IATA:

IATA-C: ERG-Code 5L

Must be protected from direct sunlight and stored away from all sources of heat in a well ventilated area.

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IATA-P ERG-Code 5L

Must be protected from direct sunlight and stored away from all sources of heat in a well-ventilated area.

IMDG:

EmS: F-J,S-R

"Separated from" acids and alkalis. Protected from sources of heat.

## 15. REGULATORY INFORMATION

### U.S. REGULATIONS:

All components of this product are listed on or exempt from the TSCA Inventory.

### U.S. SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

#### 311/312 HAZARD CATEGORIES:

**FIRE:** Yes

**PRESSURE GENERATING:** No

**REACTIVITY:** No

**ACUTE:** Yes

**CHRONIC:** No

#### 313 REPORTABLE INGREDIENTS:

No reportable components

### 302/304 EMERGENCY PLANNING EMERGENCY PLAN:

### STATE REGULATIONS:

No reportable components

**OTHER GOVT. REGULATIONS:** No other information available

## 16. OTHER INFORMATION

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