# CYCLOHEXANONE PEROXIDE

## 1. CORRECTIVE RESPONSE ACTIONS

### 1.1 Personal Protective Equipment
- Goggles or face shield
- Rubber gloves

### 1.2 Symptoms Following Exposure
- Irritate eyes and skin on contact
- May cause irritation of mouth and stomach

### 1.3 Treatment of Exposure
- **EYES:** flush with water for at least 15 min.; get medical attention
- **SKIN:** wash off and wash with soap and water; get medical attention if irritation occurs
- **INGESTION:** induce vomiting; get medical attention

### 1.4 TLV-TWA: Not listed
### 1.5 TLV-STEL: Not listed

## 2. CHEMICAL DESIGNATIONS

### 2.1 CG Compatibility Group: Not listed
### 2.2 Formula: C₈H₁₄O₂
### 2.3 IMO/UN Designation: 1.0071 (> 70%); 5.2 (1%)
### 2.4 DOT ID No.: Not listed
### 2.5 CAS Registry No.: 78-18-2
### 2.6 NAERG Guide No.: 147
### 2.7 Standard Industrial Trade Classification: 5128

## 3. HEALTH HAZARDS

### 3.1 Personal Protective Equipment
- Goggles or face shield
- Rubber gloves

### 3.2 Symptoms Following Exposure
- Irritate eyes and skin on contact
- May cause irritation of mouth and stomach

### 3.3 Treatment of Exposure
- **EYES:** flush with water for at least 15 min.; get medical attention
- **SKIN:** wash off and wash with soap and water; get medical attention if irritation occurs
- **INGESTION:** induce vomiting; get medical attention

### 3.4 TLV-TWA: Not listed
### 3.5 TLV-STEL: Not listed
### 3.6 Value: Not listed

## 4. FIRE HAZARDS

### 4.1 Flash Point: Combustible solution 315°F C.C. (diisobutyl phthalate)
### 4.2 Flammable Limits in Air: Not pertinent
### 4.3 Fire Extinguishing Agents: Water, foam, dry chemical, carbon dioxide
### 4.4 Fire Extinguishing Agents Not to Be Used: Not pertinent
### 4.5 Special Hazards of Combustion Products: Not pertinent
### 4.6 Behavior In Fire: May explode
### 4.7 Auto Ignition Temperature: 757°F (diisobutyl phthalate)
### 4.8 Electrical Hazards: Not pertinent
### 4.9 Burning Rate: Currently not available
### 4.10 Adiabatic Flame Temperature: Currently not available
### 4.11 Stoichiometric Air to Fuel Ratio: 71.4 (calc.)
### 4.12 Flame Temperature: Currently not available
### 4.13 Combustion Molar Ratio (Reactant to Product): 23.0 (calc.)
### 4.14 Minimum Oxygen Concentration for Combustion (MOCC): Not listed

## 5. CHEMICAL REACTIVITY

### 5.1 Reactivity with Water: No reaction
### 5.2 Reactivity with Common Materials: No reaction
### 5.3 Stability During Transport: Stable
### 5.4 Neutralizing Agents for Acids and Alkalis: Not pertinent
### 5.5 Polymerization: Not pertinent
### 5.6 Inhibitor of Polymerization: Not pertinent

## 6. WATER POLLUTION

### 6.1 Aquatic Toxicity: Currently not available
### 6.2 Water/fowl Toxicity: Currently not available
### 6.3 Biological Oxygen Demand (BOD): Currently not available
### 6.4 Food Chain Concentration Potential: None
### 6.5 GESAMP Hazard Profile: Not listed

## 7. SHIPPING INFORMATION

### 7.1 Grades of Purity: 45% paste with dibutyl phthalate
### 7.2 Storage Temperature: Cool ambient
### 7.3 Inert Atmosphere: No requirement
### 7.4 Venting: Open (flame arrester)
### 7.5 IMO Pollution Category: Currently not available
### 7.6 Ship Type: Currently not available
### 7.7 Barge Hull Type: Currently not available

## 8. HAZARD CLASSIFICATIONS

### 8.1 CAS Registry No.: Not listed
### 8.2 49 CFR Class: Not pertinent
### 8.3 49 CFR Package Group: Not listed
### 8.4 Marine Pollutant: No
### 8.5 NFPA Hazard Classification: Not listed
### 8.6 EPA Reportable Quantity: Not listed
### 8.7 EPA Pollution Category: Not listed
### 8.8 RCRA Waste Number: Not listed
### 8.9 EPA FWPCA List: Not listed

## 9. PHYSICAL & CHEMICAL PROPERTIES

### 9.1 Physical State at 1 atm: Solid or liquid
### 9.2 Molecular Weight: Mixture
### 9.3 Boiling Point at 1 atm: Decomposes
### 9.4 Freezing Point: Not pertinent
### 9.5 Critical Temperature: Not pertinent
### 9.6 Critical Pressure: Not pertinent
### 9.7 Specific Gravity: 1.05 at 20°C (liq/air)
### 9.8 Liquid Surface Tension: (est.) 30 dynes/cm at 20°C
### 9.9 Liquid Water Interfacial Tension: (est.) 35 dynes/cm at 20°C
### 9.10 Vapor (Gas) Specific Gravity: Not pertinent
### 9.11 Ratio of Specific Heats of Vapor (Gas): Not pertinent
### 9.12 Latent Heat of Vaporization: Not pertinent
### 9.13 Heat of Combustion: (est.) –14,000 Btu/lb –7,900 cal/g = –330 X 10⁶ J/kg
### 9.13 Heat of Decomposition: Currently not available
### 9.15 Heat of Solution: Not pertinent
### 9.16 Heat of Polymerization: Not pertinent
### 9.17 Heat of Fusion: Currently not available
### 9.18 Limiting Value: Currently not available
### 9.19 Reid Vapor Pressure: Currently not available

## NOTES

### 9.14 Heat of Decomposition: Not pertinent
### 9.15 Heat of Solution: Not pertinent
### 9.16 Heat of Polymerization: Not pertinent

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**JUNE 1999**
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