

Material Safety Data Sheet

Section 1. Product Identification and Use

Product Name - Trade Name **999-035 CATALYST**

Supplier - Manufacturer **Chemcraft® International Inc.**

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Code 999-035

Synonym CATALYST

Chemical Name Not applicable.

Chemical Family Synthetic polymer in organic solvent. (Paint.)

Chemical Formula Not applicable.

Material Uses Coatings: Surface coatings and finishes.

Product Identification Number (PIN) 3105 ORGANIC PEROXIDE, TYPE D LIQUID, (METHYL ETHYL KETONE PEROXIDE)

Section 2. Hazardous Ingredients

Exposure limits

Name	CAS #	% by Weight	LC ₅₀ /LD ₅₀	TLV/PEL
Methylethylketone peroxide	1338-23-4	30 - 50	ORAL (LD50): Acute: 454 mg/kg [Rat]. VAPOR (LC50): Acute: 200 mg/l 4 hour/hours [Rat].	TWA: 0.2 ppm CEIL: 0.2 ppm TWA: 1.5 mg/m ³
Hexylene glycol	107-41-5	5 - 15	ORAL (LD50): Acute: 3700 mg/kg [Rat]. DERMAL (LD50): Acute: 12000 mg/kg [Rabbit].	TWA: 25 ppm TWA: 125 mg/m ³
Methyl ethyl ketone	78-93-3	0.1 - 1	ORAL (LD50): Acute: 3000 mg/kg [Mouse]. 2737 mg/kg [Rat]. DERMAL (LD50): Acute: 6480 mg/kg [Rabbit].	TWA: 200 ppm 8 hour/hours. STEL: 300 ppm 15 minute/minutes. CEIL: 300 ppm
Hydrogen peroxide	7722-84-1	0.1 - 1	ORAL (LD50): Acute: 1518 mg/kg [Rat].	OSHA (United States). TWA: 1 ppm ACGIH (United States, 1986). TWA: 1 ppm CEIL: 2 ppm NIOSH TWA: 1 ppm TWA: 1.4 mg/m ³

Trace impurities and additional material names not listed above may appear in other sections of this MSDS. These materials may be listed for toxicological concerns, local compliance, or other reasons.

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Section 3. Physical Data

Physical State and Appearance	Liquid.
Color	Not available.
Odor	Not available.
Taste	Not available.
Molecular Weight	Not applicable.
pH (1% soln/water)	Neutral.
Boiling Point	The lowest known value is 80°C (176°F) (2-Butanone). Weighted average: 166.86°C (332.3°F)
Melting Point	May start to solidify at 0°C (32°F) based on data for: Water. Weighted average: -40.7°C (-41.3°F)
Critical Temperature	Not available.
Specific Gravity	Weighted average: 1.08 (Water = 1)
Vapor Pressure	The highest known value is 10.3 kPa (77.5 mm Hg) (at 20°C) (2-Butanone). Weighted average: 1.78 kPa (13.35 mm Hg) (at 20°C)
Vapor Density	The highest known value is 4 (Air = 1) (2,4-Pentanediol, 2-methyl-). Weighted average: 3.37 (Air = 1)
Volatility	Not available.
Odor Threshold	The lowest known value is 0.25 ppm (2-Butanone) Weighted average: 43.35 ppm
Water/Oil Dist. Coeff.	The product is much more soluble in water.
Ionicity (in Water)	Not available.
Dispersion Properties	See solubility in water, methanol, diethyl ether, acetone.
Solubility	Easily soluble in methanol, acetone. Soluble in cold water, hot water. Partially soluble in diethyl ether. Insoluble in n-octanol.

Section 4. Fire and Explosion Hazard

The Product is:	Flammable.
Fire Hazards in Presence of Various Substances	Highly flammable in the presence of the following materials or conditions: open flames, sparks and static discharge. Flammable in the presence of the following materials or conditions: shocks and mechanical impacts and organic materials. Non-flammable in the presence of the following materials or conditions: heat, oxidizing materials, reducing materials, combustible materials, metals, acids, alkalis and moisture.
Fire Fighting Media and Instructions	SMALL FIRE: Use dry chemical powder. LARGE FIRE: Use alcohol-resistant foam or water spray or fog. Do not use water jet. Cool containers with water jet in order to prevent pressure build-up, auto-ignition or explosion. Use flooding quantities of water. Avoid contact with organic materials.
Special Remarks on Fire Hazards	Not available.
Flash Points	The lowest known value is Closed cup: -6°C (21.2°F). (Tagliabue.). Open cup: -4°C (24.8°F). (2-Butanone)
Flammable Limits	The greatest known range is Lower: 1.8% Upper: 10% (2-Butanone)
Auto-Ignition Temperature	The lowest known value is 460°C (860°F) (2-Butanone).
Products of Combustion	These products are carbon oxides (CO, CO ₂).
Explosion Hazards in Presence of Various Substances	Highly explosive in the presence of the following materials or conditions: open flames, sparks and static discharge. Explosive in the presence of the following materials or conditions: shocks and mechanical impacts. Non-explosive in the presence of the following materials or conditions: heat, oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids, alkalis and moisture.
Special Remarks on Explosion Hazards	Not available.

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Section 5. Reactivity Data

Stability	Unstable. (2-Butanone, peroxide)
Decomposition products	Not available.
Conditions of Instability	Thermal decomposition, contamination. (2-Butanone, peroxide)
Incompatibility with various substances	Highly reactive or incompatible with the following materials: oxidizing materials, reducing materials, combustible materials, organic materials, metals, acids and alkalis. Non-reactive or compatible with the following materials: moisture.
Corrosivity	Slightly corrosive in the presence of copper, of zinc.
Special Remarks on Reactivity	Not available.
Special Remarks on Corrosivity	Corrosive to finely powdered metals. (Hydrogen peroxide (H ₂ O ₂))

Section 6. Toxicological Properties

Routes of Entry	Dermal contact. Eye contact. Inhalation. Ingestion.
Toxicity to Animals	Acute oral toxicity (LD ₅₀): 454 mg/kg [Rat]. (2-Butanone, peroxide). Acute dermal toxicity (LD ₅₀): 6480 mg/kg [Rabbit]. (2-Butanone). Acute toxicity of the gas (LC ₅₀): 23500 mg/m ³ 8 hour/hours [Rat]. (2-Butanone). Acute toxicity of the vapor (LC ₅₀): 32000 mg/m ³ 4 hour/hours [Mouse]. (2-Butanone).
Effects of Acute Exposure	Hazardous in case of ingestion. Slightly hazardous in case of skin contact (irritant), of eye contact (irritant), of inhalation. Liquid, spray or mist may produce tissue damage, particularly to mucous membranes of eyes, mouth and respiratory tract. Skin contact may produce burns. Inhalation of the spray or mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. Prolonged exposure may result in skin burns and ulcerations. Over-exposure by inhalation may cause respiratory irritation.
Chronic Effects on Humans	CARCINOGENIC EFFECTS: Classified A5 (Not suspected for humans.) by ACGIH, 4 (Probably not for humans.) by IARC, None. by OSHA [2-Butanone]. Classified 4 (Probably not for humans.) by IARC, None. by OSHA [Hydrogen peroxide (H ₂ O ₂)]. MUTAGENIC EFFECTS: Not available. TERATOGENIC EFFECTS: Not available. DEVELOPMENTAL TOXICITY: Not available. The substance is toxic to liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation, leading to frequent attacks of bronchial infection.
Special Remarks on Toxicity to Animals	Not available.
Special Remarks on Chronic Effects on Humans	0700 In vitro studies in mammal cells, has shown mutagenic action. (Hydrogen peroxide (H ₂ O ₂))
Special Remarks on Other Toxic Effects on Humans	Material is destructive to tissue of the mucous membranes and upper respiratory tract. (Hydrogen peroxide (H ₂ O ₂))
Exposure Limits	Not available.

Section 7. Preventive Measures

Personal Protection	Face shield. Full suit. Vapor respirator. Be sure to use an approved/certified respirator or equivalent. Impervious gloves. Boots.
Personal Protection in Case of a Large Spill	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. Self-contained breathing apparatus (SCBA) should be used to avoid inhalation of the product. Suggested protective clothing might not be adequate. Consult a specialist before handling this product.
Engineering Controls	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are close to the workstation location.

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Small Spill	Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container.	
Large Spill	Keep away from heat. Keep away from sources of ignition. Stop leak if without risk. Absorb with dry earth, sand or other non-combustible material. Do not allow water to enter container. Avoid contact with combustible materials (wood, paper, oil, clothing etc.). Keep substance damp using water spray. Do not use metal tools or equipment. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas. Dike if necessary. Call for assistance on disposal.	
Waste Disposal	Waste must be disposed of in accordance with federal, state and local environmental control regulations.	
Precautions	Keep container dry. Keep away from heat. Keep away from sources of ignition. Keep away from combustible material. Ground all equipment containing material. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. Take precautionary measures against electrostatic discharges. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, combustible materials, organic materials, metals, acids, alkalis.	
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Separate from acids, alkalis, reducing agents and combustibles. See NFPA 430, Code for the Storage of Liquid and Solid Oxidizers. Avoid all possible sources of ignition (spark or flame).	
TDG Classification	5.2	
PIN	3 1 0 5 ORGANIC PG: II PEROXIDE, TYPE D LIQUID, (METHYL ETHYL KETONE PEROXIDE)	
Special Provisions for Transport	-	
Federal and State Regulations	TSCA 8(b) inventory: Hydrogen peroxide (H2O2) SARA 311/312 MSDS distribution - chemical inventory - hazard identification: 2-Butanone: Fire hazard, Immediate (acute) health hazard CERCLA: Hazardous substances.: 2-Butanone;	
Other Regulations	OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).	
Other Classifications	WHMIS (Canada)	Class B-2: Flammable liquid Class C: Oxidizing material. Class D-1B: Material causing immediate and serious toxic effects (Toxic). Class D-2A: Material causing other toxic effects (Very toxic). Class D-2B: Material causing other toxic effects (Toxic). Class E: Corrosive material
	HCS (U.S.A.)	Target organ effects Combustible liquid
Hazardous Material Information System (U.S.A.)	Health Hazard	* 3
	Fire Hazard	3
	Reactivity	0
	Personal Protection	
National Fire Protection Association (U.S.A.)	Health	3
	Fire Hazard	3
	Reactivity	0
	Specific Hazard	

Section 8. First Aid Measures

Eye Contact	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention if irritation occurs.
Skin Contact	Wash with soap and water. Cover the irritated skin with an emollient. Get medical attention if irritation develops. Cold water may be used.
Hazardous Skin Contact	Not available.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention if symptoms appear.
Hazardous Inhalation	Move the victim to a safe area as soon as possible. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, administer oxygen. If the victim is not breathing, perform mouth-to-mouth resuscitation. Warning: It may be hazardous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention.
Ingestion	Do not induce vomiting. Examine the lips and mouth to ascertain if the tissues are damaged, a possible indication that toxic material was ingested. The absence of such signs, however, is not conclusive. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Seek immediate medical attention.
Hazardous Ingestion	Not available.

Section 9. Preparation Information

References	-Manufacturers Material Safety Data Sheets.
Other Special Considerations	Not available.
Related Information	This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by CPR.
Preparation Information	Validated by K. William on 7/18/2006. Verified by K. William. Printed 5/4/2007.
Information Contact	Prepared by the Health, Safety and Environment Department, Chemcraft International Inc., P.O. Box 458, 155, Rose Glen Road North, Port Hope, ON. Canada. Phone: 905 885-6388 Fax: 905 885-5097

Notice to Reader

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