

MSDS

SECTION 1 – Chemical Product and Company Identification

CATALYST SYSTEMS
U S Chemical & Plastics
Alco Industries Companies
PO Box 88
2290 Zimmerman Rd SE
Gnadenhutten, OH 44629
PH: 740-254-4311

CHEMTREC: 1-800-424-9300
CANUTEC: 1-613-996-6666
(For Canada call collect)

PRODUCT NAME: LIQUID HARDENER
PRODUCT CODE: (93510), 28081, 28086, 30010, 30015, 30020, 30021
30022, 30025, 58015, 58021, 77071, 97634
SYNONYM/CROSS REFERENCE: MEKP Catalyst
SCHEDULE B NUMBER: 3815.90.0000

SECTION 2 – Hazard Identification

OVEREXPOSURE EFFECTS:

ACUTE EFFECTS:

EYES: Corrosive to eyes. Contact with eyes can cause severe irritation, redness, tearing, blurred vision, and/or swelling. May cause eye damage.

SKIN: Contact with skin can cause severe irritation, (itching, burning and/or redness), dermatitis, defatting may be readily absorbed through the skin.

INHALATION: Inhalation of vapors can cause nasal and respiratory irritation, dizziness, weakness, fatigue, nausea, headache, possible unconsciousness, and/or asphyxiation. Aspiration of material into lungs may result in chemical pneumonitis which can be fatal.

INGESTION: Ingestion can cause severe gastrointestinal irritation, nausea, vomiting, diarrhea. May cause burns of the mouth, throat, esophagus, and stomach.

PRIMARY ROUTES OF EXPOSURE: Inhalation, skin

SECTION 3 – Composition, Information or Ingredients

<u>INGREDIENTS</u>	<u>WGT%</u>	<u>CAS #</u>
Methyl Ethyl Ketone Peroxide	30-35%	1338-23-4
Hydrogen Peroxide	0-5%	7722-84-1
2,2,4-Trimethylpentanediol- 1,3-diisobutyrate	60-70%	6846-50-0

SECTION 4 – First Aid Measures

INHALATION: If inhaled, remove victim from exposure to a well-ventilated area. Make them comfortably warm, but not hot. Use oxygen or artificial respiration as required. Consult a physician.

SKIN: For skin contact, wash promptly with soap and excess water. If irritation persists, consult a physician.

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EYES: For eye contact, flush promptly with excess water for at least fifteen minutes. Consult a physician. Do not try to neutralize with chemical agents. Do not let victim rub eyes. If victim is wearing contact lenses, remove them. Consult a physician as soon as possible after flushing eyes with water.

INGESTION: If ingested, do not induce vomiting. Give victim a glass of water. Call a physician immediately.

SECTION 5 – Fire-Fighting Measures

FIRE EXTINGUISHING MEDIA: Carbon Dioxide, Dry Chemical, Foam

SPECIAL FIRE FIGHTING PROCEDURES: Fight like a fuel oil fire. Cool fire exposed containers with water spray. Firefighter should wear OSHA/NIOSH approved self-contained breathing apparatus.

UNUSUAL FIRE AND EXPLOSION HAZARD: Closed containers exposed to high temperatures, such as fire conditions may rupture. Decomposition products are flammable and can ignite explosively if confined.

SECTION 6 – Accidental Release Measures

SPILLS, LEAK OR RELEASE: Ventilate area. Remove all possible sources of ignition. Avoid prolonged breathing of vapor. Contain spill with inert absorbent.

SECTION 7 – Handling and Storage

STORAGE AND HANDLING: Use with adequate ventilation. Harmful or fatal if swallowed. Avoid contact with eyes and skin. Avoid breathing vapors. Do not store the product above 86°F/30°C. Do not store the product above 100°F/38°C. Do not flame, cut, braze weld or melt empty containers. Keep the product away from heat, open flame, and other sources of ignition. Avoid contact with strong acids, alkalis, and oxidizers.

SECTION 8 – Exposure Controls and Personal Protection

<u>INGREDIENTS</u>	<u>CAS #</u>	<u>TLV/PEL</u>
Methyl Ethyl Ketone Peroxide	1338-23-4	ACGIH Ceiling: 1.5 mg/m ³ OSHA Ceiling: 5 mg/m ³
Hydrogen Peroxide	7722-84-1	ACGIH TLV 1.4 mg/m ³ OSHA PEL 1.4 mg/m ³
2,2,4-Trimethylpentanediol-1,3-diisobutyrate	6846-50-0	N/E

RESPIRATORY PROTECTION: If component exposure limits are exceeded, use NIOSH/MSHA approved respirator to remove vapors. Use an air-supplied respirator if necessary.

VENTILATION: Use adequate ventilation in volume and pattern to keep TLV/PEL below recommended levels. Explosion-proof ventilation may be necessary.

PROTECTIVE GLOVES: To prevent prolonged exposure use rubber gloves; solvents may be absorbed through the skin.

EYE PROTECTION: Use chemical goggles with splash guards or full face shield.

OTHER PROTECTIVE EQUIPMENT: Wear protective clothing as required to prevent skin contact. Safety showers and eye wash stations are recommended where this material is handled.

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SECTION 9 – Physical and Chemical Properties

FLASH POINT: 180°F/ 82°C Seta Flash Closed cup (decomposes at temperatures above 131°F/55°C)

APPEARANCE: Clear, red, or orange liquid with faint Ketone odor

SPECIFIC GRAVITY: 1.17 @ 25°C

VAPOR PRESSURE (mmHG): N/D

BOILING POINT: Decomposes at temperatures above 131°F/55°C

VAPOR DENSITY: Heavier than air

EVAPORATION RATE (Ethyl Ether = 1): Slower than Ethyl Ether

VOLATILES BY WEIGHT: Negligible

SOLUBILITY IN WATER: Insoluble

VOC (less water & exempts): g/l = nil lbs/gal = nil

SECTION 10 – Stability and Reactivity

STABILITY: Unstable. Hazardous and uncontrollable decomposition may occur above 131°F/55°C. The self-accelerating decomposition temperature is 140°F/60°C.

CONDITIONS TO AVOID: Open flames, sparks, heat, electrical and static discharge, storage at high temperatures.

INCOMPATIBILITY MATERIALS TO AVOID: Strong acids, alkalis, oxidizers.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Dioxide, Carbon Monoxide, and Carbon, ethane and methane.

HAZARDOUS POLYMERIZATION: Will not occur.

SECTION 11 – Toxicological Information

CHRONIC EFFECTS:

Overexposure to this material has apparently been known to cause the following effects in lab animals: Eye or skin damage, digestive tract, and respiratory system.

CARCINOGEN: YES NO

TERATOGEN: YES NO

MUTAGEN: YES NO

TOXICITY (For a similarly related product)

Dermal (rabbit)	LD50 4000 mg/kg
Eye	Draize Score = 76.3 Corrosive to eyes
Inhalation (rate 4 hours)	LD50 17.0 mg/l
Oral (rat)	LD50 1017 mg/kg

SECTION 12 – Ecological Information

N/E

SECTION 13 – Disposal Considerations

WASTE DISPOSAL: Dispose of in accordance with local, state, and federal regulations.

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SECTION 14 – Transport Information

For Ground Transport: In USA

Consumer Commodity ORM-D in less than 125 ml inner container.

For Air Transport:

Must be re-boxed to UN specified packaging.

UN3107, Organic Peroxide Type E, Liquid ($\leq 40\%$ Methyl Ethyl Ketone Peroxide),
5.2 Packing Instruction 500, 502 Special Provisions A14, A20, A150

For Ocean Transport:

For inner containers less than 125 ml:

UN3107, Organic Peroxide Type E, Liquid, 5.2, EMS #F-J, S-R,
In Limited Quantity (The activator $\leq 40\%$ Methyl Ethyl Ketone Peroxide)

SECTION 15 – Regulatory Information

CALIFORNIA PROPOSITION 65:

Does not contain any listed chemicals.

SECTION 313 SUPPLIER NOTIFICATION:

This product contains the following toxic chemicals subject to the reporting requirements of the Emergency Planning and Community Right-To-Know Act of 1986 and 40 CFR 372:

<u>CHEMICAL NAME</u>	<u>CAS</u>	<u>% BY WGT</u>
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N/A

This information must be included in all MSDS that are copied and distributed for this chemical.

DO NOT FLAME CUT, WELD OR MELT EMPTY CONTAINERS.

SECTION 16 – Other Information

HMIS RATING:	Health	3	4 = Extreme
	Fire	2	3 = High
	Reactivity	2	2 = Moderate
			1 = Slight
			0 = Insignificant

Personal Protection - See Section VIII

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ABBREVIATIONS

IARC	= International Agency for Research on Cancer
ACGIH	= American Conference of Governmental Industrial Hygienists
NIOSH	= National Institute of Occupational Safety and Health
TLV	= Threshold Limit Value
PEL	= Permissible Emission Level
DOT	= Department of Transportation
NTP	= National Toxicology Program
N/AV	= Not Available
N/AP	= Not Applicable
N/E	= Not Established
N/D	= Not Determined

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REVISION: Format

The information in the Material Safety Data Sheet has been compiled from our experience and from data presented in various technical publications. It is the user's responsibility to determine the suitability of this information for the adoption of the safety precautions as may be necessary. We reserve the right to revise Material Safety Data Sheets from time to time as new technical information becomes available. The user has the responsibility to contact the Company to make sure that the MSDS is the latest one issued.