
1. CHEMICAL PRODUCTS AND COMPANY IDENTIFICATION

Product Names/Trade Names: ECI-3000 Catalyst

Chemical Family: Polyurethane Reactant

Manufacturer's Name: Environmental Coatings, Inc.
36 Eagle Rock Way
Montclair, NJ 07042

Manufacturer's Phone Number: (973) 509-9456

Manufacturer's Website: www.eciproducts.com

Company Emergency Phone Number: CHEMTREC: 1-800-424-9300

2. HAZARDS IDENTIFICATION

Emergency Overview: Danger. Highly flammable. Clear volatile, flammable liquid. Has a sweet, mint-like odor. Vapors may form explosive mixtures with air. The product causes irritation of eyes, skin and mucous membranes. Repeated exposure may cause skin dryness or cracking. Harmful by inhalation. Harmful: may cause lung damage if swallowed. Causes headache, drowsiness or other effects to the central nervous system. Do not allow product to contact skin, eyes and clothing. Do not breathe vapors.

GHS Classification

Flammable Liquids - Category 2

Serious Eye Damage/Eye Irritation - Category 1

Skin Corrosion – Category 1C

Target Organ Systemic Toxicity (single exposure) - Category 3

Label Elements

Hazardous components which must be listed on the label:

Contains Acetone.

Signal word: Danger

Pictograms:



Hazard Statements:

H225: Highly flammable liquid and vapor.
H314: Causes severe skin burns and eye damage.
H317: May cause an allergic skin reaction.
H319: Causes serious eye irritation.
H335: May cause respiratory irritation.
H341: Suspected of causing genetic defects.
H360: May damage fertility or the unborn child.
H372a: Cause damage to organs through prolonged or repeated exposure if swallowed.

Precautionary Statements

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P233: Keep container tightly closed.
P240: Ground/bond container and receiving equipment.
P241: Use explosion-proof electrical/ventilating/lighting equipment.
P243: Take precautionary measures against static discharge.
P242: Use only non-sparking tools.
P264: Wash hands thoroughly after handling.
P260: Do not breathe dust/fume/gas/mist/vapors/spray.
P261: Avoid breathing gas/mist/vapors/spray.
P271: Use only outdoors or in a well-ventilated area.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response Statements

P370+378: In case of fire, use dry chemical to extinguish.
P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313: If eye irritation persists, get medical advice/attention.
P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312: Call a POISON CENTER/doctor if you feel unwell.

Storage and Disposal Statements

P403+235: Store in cool/well-ventilated place.
P501: Dispose of contents/container according to local, state and federal regulations.
P403+233: Store container tightly closed in well-ventilated place - if product is as volatile as to generate hazardous atmosphere.
P405: Store locked up.

General Information: This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. Prolonged contact may result in chemical burns and permanent damage. Repeated or prolonged contact causes sensitization, asthma and eczemas.

Read the entire SDS for a more thorough evaluation of the hazards.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredients	% By Weight	CAS Number
Methyl Ketone	>70%	67-64-1
Bis(lauroyloxy)dibutyl-stannan	<10%	77-58-7

No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, IARC, NTP or OSHA.

4. 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. 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.

Inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion: Rinse mouth. Drink plenty of water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

ADVICE TO PHYSICIAN: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Fire Extinguishing Media: Dry chemical. Alcohol-Resistant Foam. Carbon Dioxide (CO₂).

Explosion Hazards in Presence of Various Substances:

Highly flammable. Vapors may form explosive mixtures with air. Vapors are heavier than air and may travel along the ground to some distant source of ignition and flash back. Hazardous combustion products may include carbon monoxide, carbon dioxide (CO₂).

Precautions for fire fighters: Appropriate breathing apparatus may be required. Cool endangered containers with water in case of fire. Do not allow quenching water into sewers or waterways. Wear pressure-demand self-contained breathing apparatus (MSHA/NIOSH-approved or equivalent) and full protective gear.

FLASH POINT:	-4°F (-20°C)
FLASH POINT METHOD:	Closed Cup
AUTOIGNITION TEMPERATURE:	869°F (465°C)
UPPER FLAME LIMIT (volume % in air):	13
LOWER FLAME LIMIT (volume % in air):	2.5
FLAME PROPAGATION RATE (solids):	Not applicable
OSHA FLAMMABILITY CLASS:	Class 1B Flammable Liquid

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions: No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental Precautions: Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform authorities if the product has caused environmental pollution (sewers, drains, waterways or soil).

Methods for Cleaning up: Stop leak if without risk. Move containers from spill area. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see section 13). Note: see section 1 for emergency contact information and section 13 for waste disposal.

7. HANDLING AND STORAGE

Handling: Put on appropriate personal protective equipment, PPE (see Section 8). Eating and drinking should be prohibited in areas where this material is handled, stored and processed. Remove contaminated PPE or clothing, wash hands and face before eating and drinking. Use only in area provided with appropriate exhaust ventilation. Empty containers retain product residue and can be hazardous. Do not get in eyes, skin or clothing. Do not ingest. Avoid release to the environment.

Storage: Store between 15 to 27°C (60 to 80°F) in accordance with local regulations away from sources of heat, ignition, and direct sunlight. Store in original container. Keep in a dry, well-ventilated area, and away from incompatible materials (see section 10). Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled, unapproved or reactive containers. Use appropriate containment to avoid environmental contamination.

8. EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE GUIDELINES

Methyl Ketone (67-64-1)

ACGIH:	500 ppm TWA 750 ppm STEL
OSHA (Final):	1000 ppm TWA; 2400 mg/m ³ TWA
OSHA (Vacated):	750 ppm TWA; 1800 mg/m ³ TWA 1000 ppm STEL; 2400 mg/m ³ STEL (The acetone STEL does not apply to the cellulose acetate fiber industry. It is in effect for all other sectors)
NIOSH:	250 ppm TWA; 590 mg/m ³ TWA
British Columbia:	250 ppm TWA 500 ppm STEL
Nova Scotia:	500 ppm TWA 750 ppm STEL
Quebec:	750 ppm TWAEV; 1780 mg/m ³ TWAEV 1000 ppm STEV; 2380 mg/m ³ STEV

Engineering measures: Work in well-ventilated area. Provide natural or explosion-proof fan to ensure adequate ventilation, especially in confined area. Avoid contact with skin, eyes, and clothing.

Environmental exposure controls: Construct a dike to prevent spreading. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Hygiene Measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating and drinking, smoking or using the lavatory and at the end of the working period. Contaminated work clothing should not be allowed out of the workplace. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection:

Respiratory - In case of inadequate ventilation wear respiratory protection. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.

Eyes – Splash proof safety glasses.

Skin - Rubber or plastic apron. Rubber or plastic gloves. Long sleeved clothing or wear protective sleeves. Remove and wash contaminated clothing before re-use.

Other protective equipment information - Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Neoprene gloves. PVC disposable gloves. Nitrile rubber. Butyl rubber. Impervious gloves. (The breakthrough time of the selected glove(s) must be greater than the intended use period.)

9. PHYSICAL AND CHEMICAL PROPERTIES

Form:	Liquid
Odor:	Ketone, Sweet-like
Color:	Colorless, Clear
PH Value:	Not Applicable
Boiling Point:	>56°C (>133°F)
Vapor Pressure (25°C):	213mm Hg
Density:	6.58 lb/US gallon
Solubility in water:	Soluble
Evaporation Rate (Butyl Acetate = 1):	12
Volatile Organic Compounds:	>70%

10. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions. Hazardous reactions will not occur.

Conditions to avoid: Flames, Sparks, Heat.

Materials to avoid: Oxidizing agents, Aldehydes, Amines, Strong alkaline and strong acid materials in order to avoid exothermic reactions.

Hazardous decomposition products: Carbon monoxide (CO), Carbon dioxide (CO₂).

Hazardous polymerization: Under normal conditions hazardous polymerization will not occur.

11. TOXICOLOGICAL INFORMATION

Component Analysis - LD50/LC50

Methyl Ketone (67-64-1)

Rat: LD50 – Route: Inhalation; Dose: 76 mg/L/4H LD50 – Route: Oral; Dose: 1800 mg/kg

Rabbit: LD50 – Route: Dermal; Dose: 20000 mg/kg

IMMEDIATE (ACUTE) EFFECTS: The product causes irritation of eyes, skin and mucous membranes. Repeated exposure may cause skin dryness or cracking. Harmful by inhalation. Harmful: may cause lung damage if swallowed. Causes headache, drowsiness or other effects to the central nervous system.

DELAYED (SUBCHRONIC AND CHRONIC) EFFECTS: Repeated or prolonged exposure may cause damage to the liver and kidney.

8-Week Inhalation Toxicity Study (rat): 19,000 ppm methyl ketone 5days/week for 8 weeks produced no signs of toxicity other than slightly reduced weight gain compared to controls.

90-Day Oral Toxicity Study (rat): The no-observed effect level is 100 mg/kg/day and the low-observed effect level is 500 mg/kg/day based on increased liver and kidney weights and nephrotoxicity.

OTHER DATA: This material is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP, or EPA.

Ames Assay (*S. typhimurium*): Negative

Chromosome Aberrations and Sister Chromatid Exchange Assays: Negative

Point Mutation in Mouse Lymphoma Cells: Negative

DNA Cell-binding Assay: Negative

Reproductive toxicity: Bis(lauroyloxy)dibutyl-stannan compounds have shown reproductive and immunotoxic effects in laboratory animals.

Routes of Entry: Absorbed through skin. Eye contact. Ingestion.

12. ECOLOGICAL INFORMATION

Prevent from entering sewer or waterway. This material is not expected to be harmful to aquatic life.

Component Analysis - Ecotoxicity - Aquatic Toxicity

Methyl Ketone (67-64-1)

Test & Species		Conditions
96 Hr LC50 rainbow trout	5540 mg/L	static
96 Hr LC50 fathead minnow	6210 mg/L	flow-through
96 Hr LC50 bluegill	8300 mg/L	static
48 Hr LC50 water flea	0.0039 mg/L	
48 Hr EC50 water flea	12700 mg/L	static

Accumulation in terrestrial organisms is unlikely. Bioaccumulation is unlikely.

13. DISPOSAL CONSIDERATIONS

Waste Disposal: Dispose in accordance with federal, state and local regulations.

The generation of waste should be avoided or minimized wherever possible. Empty containers should be taken to an approved waste-handling site for recycling or disposal. Incineration or landfill should only be considered when recycling is not feasible. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

14. TRANSPORT INFORMATION

US DOT PROPER SHIPPING NAME: Methyl Ketone

US DOT HAZARD CLASS: 3



US DOT ID NUMBER: UN1090

PACKING GROUP: II

The transportation information listed above is suitable for all modes of transportation. TDG, IMO/IMDG, ICAO/IATA, 49 CFR

15. REGULATORY INFORMATION

Country	Regulatory List	Notification
USA	TSCA	Included on Inventory
EU	EINECS	Included on Inventory
Canada	DSL	Included on Inventory

U.S. Federal Regulations:

OSHA: This product is considered hazardous.

CERCLA SARA Hazard Category:

Section 311 AND 312 - This product has been reviewed according to the EPA "Hazard Categories" promulgated under Sections 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered, under applicable definitions, to meet the following categories: Immediate. Fire. Acute Health Hazard. Chronic Health Hazard.

Section 313 - This product contains the following substances subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372:

Methyl Ketone (67-64-1)

U.S. State Regulations:

California Safe Drinking Water & Toxic Enforcement Act (Proposition 65) - This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other reproductive harm.

WHMIS Classification:

B2- Flammable Liquid
 D2B- Toxic Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all the information required by the Controlled Products Regulations.

16. OTHER INFORMATION

Hazardous Material Information System (HMIS):

<i>Scale 0-4</i>		<i>NFPA</i>	<i>HMIS</i>
4=Severe Hazard	Health	3	3
3=Serious Hazard	Flammability	3	3
2=Moderate Hazard	Reactivity	0	0
1=Slight Hazard			
0=Minimal Hazard			

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 a guidance for safe handling, use, processing, storage, transportation, disposal and release and 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.

END OF DATA SHEET