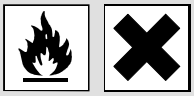
TCI AMERICA

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	**Flammable material; avoid heat and sources of ignition.** **Irritating to skin, eyes, and the respiratory system.**	

Section I. Chemical Product and Company Identification

Chemical Name: **Propionic Acid Ethyl Ester**

Catalog Number	P0505
Synonym	Ethyl Propionate
Chemical Formula	$CH_3CH_2COOC_2H_5$
CAS Number	105-37-3

Supplier
TCI America
9211 N. Harborgate St.
Portland OR
1-800-423-8616

In case of Emergency Call
Chemtrec®
(800) 424-9300 (U.S.)
(703) 527-3887 (International)

Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Propionic Acid Ethyl Ester	105-37-3	Min. 99.0 (GC)	Not available.	Rat LD_{50} (intraperitoneal) 1200mg/kg Rat LD_{50} (oral) 8732mg/kg Rabbit LD_{50} (dermal) 14256mg/kg

Section III. Hazards Identification

Acute Health Effects
Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Chronic Health Effects
CARCINOGENIC EFFECTS : Not available.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Not available.
DEVELOPMENTAL TOXICITY: Not available.
Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.

Section IV. 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.

Skin Contact
Wash with soap and water. Get medical attention if irritation develops.

Inhalation
If the victim is not breathing, perform mouth-to-mouth resuscitation. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention if respiration problems do not improve.

Ingestion
INDUCE VOMITING by sticking finger in throat. Lower the head so that the vomit will not reenter the mouth and throat. Loosen tight clothing such as a collar, tie, belt or waistband. If the victim is not breathing, perform mouth-to-mouth resuscitation. Examine the lips and mouth to ascertain whether the tissues are damaged, a possible indication that the toxic material was ingested; the absence of such signs, however, is not conclusive. SEEK IMMEDIATE MEDICAL ATTENTION in case of ingestion of a radioactive material.

Section V. Fire and Explosion Data

Flammability	Flammable.	Auto-Ignition	Not available.
Flash Points	12°C (53.6°F).	Flammable Limits	Not available.

Combustion Products
These products are toxic carbon oxides (CO, CO_2).

Fire Hazards
Reactive with strong oxidizers. Vapors may travel to source of ignition and flash back. Closed containers may explode from heat of a fire. Highly flammable in presence of open flames nad sparks, of heat.

Explosion Hazards
Risks of explosion of the product in presence of mechanical impact: Not available.
Risks of explosion of the product in presence of static discharge: Not available.

Fire Fighting Media and Instructions
Flammable liquid.
SMALL FIRE: Use DRY chemical powder.
LARGE FIRE: Use alcohol foam, water spray or fog.

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Section VI. Accidental Release Measures

Spill Cleanup Instructions

Flammable liquid. Irritating material.
Keep away from heat. Mechanical exhaust required. Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. DO NOT touch spilled material. Prevent entry into sewers, basements or confined areas; dike if needed.

Section VII. Handling and Storage

Handling and Storage Information

FLAMMABLE. IRRITANT. Keep away from heat. Mechanical exhaust required. Avoid excessive heat and light. DO NOT ingest. Do not breathe gas/fumes/ vapor/spray. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively.
Always store away from incompatible compounds such as oxidizing agents, moisture.

Section VIII. Exposure Controls/Personal Protection

Engineering Controls

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection

Splash goggles. Lab coat. Vapor respirator. Boots. Gloves. Be sure to use a MSHA/NIOSH approved respirator or equivalent. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

Exposure Limits

Not available.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Liquid.	Solubility	Soluble in about 60 parts water. Soluble in most organic solvents, alcohol and ether. Miscible in ethanol and ethyl ether. Soluble in acetone.
Specific Gravity	0.891		
Molecular Weight	102.13	Partition Coefficient	Not available.
Boiling Point	99°C (210.2°F)	Vapor Pressure	3.52g/L @ 20°C
Melting Point	-73°C (-99.4°F)	Vapor Density	3.52
Refractive Index	1.3844 @ 20°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Reminiscent of rum and pineapple odor.
Viscosity	Not available.	Taste	Not available.

Section X. Stability and Reactivity Data

Stability

This material is stable if stored under proper conditions. (See Section VII for instructions)

Conditions of Instability

Avoid excessive heat and light.

Incompatibilities

Reactive with oxidizing agents, moisture and heat.

Section XI. Toxicological Information

RTECS Number

UF3675000

Routes of Exposure

Eye Contact. Ingestion. inhalation. Skin contact.

Toxicity Data

Rat LD_{50} (intraperitoneal) 1200mg/kg
Rat LD_{50} (oral) 8732mg/kg
Rabbit LD_{50} (dermal) 14256mg/kg

Chronic Toxic Effects

CARCINOGENIC EFFECTS : Not available.
MUTAGENIC EFFECTS : Not available.
TERATOGENIC EFFECTS : Not available.
DEVELOPMENTAL TOXICITY: Not available.
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Acute Toxic Effects

Irritating to eyes and skin on contact. Inhalation causes irritation of the lungs and respiratory system. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

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Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Ethyl propionate's production and use as solvent, industrial process chemical, and flavoring agent may result in its release to the environment through various waste streams. Ethyl propionate is a common volatile found in fresh citrus fruits and juices, some whiskeys, and in Parna ham. If released to air, a vapor pressure of 35.8 mm Hg at 25°C indicates ethyl propionate will exist solely as a vapor in the ambient atmosphere. Vapor-phase ethyl propionate will be degraded in the atmosphere by reaction with photochemically-produced hydroxyl radicals; the half-life for this reaction in air is estimated to be 7 days. If released to soil, ethyl propionate is expected to have very high mobility based upon an estimated Koc of 12. Volatilization from moist soil surfaces is expected to be an important fate process based upon an estimated Henry's Law constant of 2.5X10-4 atm-cu m/mole. Biodegradation in soil and water is expected to be an important environmental fateprocess because of the presence of an easily biodegraded ester functional group. Ethyl propionate may volatilize from dry soil surfaces based upon its vapor pressure. If released into water, ethyl propionate is not expected to adsorb to suspended solids and sediment in water based upon the estimated Koc. Volatilization from water surfaces is expected to be an important fate process based upon this compound's estimated Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 6 hrs and 5 days, respectively. An estimated BCF of 1.7 suggests the potential for bioconcentration in aquatic organisms is low. Estimated aqueous hydrolysis half-lives of 2.5 years and 90 days have been calculated at pH 7 and 8, respectively. Occupational exposure to ethyl propionate may occur through inhalation and dermal contact with this compound at workplaces where ethyl propionate is produced or used. The general population may be exposed to ethyl propionate via ingestion of food and drinking water, and dermal contact with this compound and other consumer products containing ethyl propionate. Ethyl propionate is a common volatile found in fresh citrus fruits and juices.

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local regional authorities. You may be able to dissove or mix material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber system. Observe all federal, state and locl regulations when disposing of the substance.

Section XIV. Transport Information

DOT Classification	CLASS 3: Flammable liquid
PIN Number	UN1195
Proper Shipping Name	Ethyl propionate
Packing Group (PG)	II
DOT Pictograms	

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is **ON** the EPA Toxic Substances Control Act (TSCA) inventory list.
WHMIS Classification (Canada)	WHMIS CLASS B-2: Flammable liquid with a flash point lower than 35°C (100°F).
EINECS Number (EEC)	203-291-4
EEC Risk Statements	R10- Flammable. R18- In use, may form flammable/explosive vapor-air mixture. R36/37/38- Irritating to eyes, respiratory system and skin.
Japanese Regulatory Data	Not available.

Section XVI. Other Information

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Notice to Reader