

# Material Safety Data Sheet

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

## Section I. Chemical Product and Company Identification

Chemical Name	<b>Acetic Acid Isopropyl Ester</b>		
Catalog Number	A0036	Supplier	TCl America 9211 N. Harbortgate St. Portland OR 1-800-423-8616
Synonym	2-Acetoxypropane		
Chemical Formula	CH <sub>3</sub> COOCH(CH <sub>3</sub> ) <sub>2</sub>		
CAS Number	108-21-4	In case of Emergency Call	<b>Chemtrec®</b> <b>(800) 424-9300 (U.S.)</b> <b>(703) 527-3887 (International)</b>

## Section II. Composition and Information on Ingredients

Chemical Name	CAS Number	Percent (%)	TLV/PEL	Toxicology Data
Acetic Acid Isopropyl Ester	108-21-4	Min. 99.0 (GC)	Not available.	Rat LD <sub>50</sub> (oral) 6750mg/kg Rabbit LD <sub>50</sub> (dermal) >20mL/kg Rat LD <sub>50</sub> (inhalation) 50600mg/m <sup>3</sup> /8H

## 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	<b>CARCINOGENIC EFFECTS</b> : Not available. <b>MUTAGENIC EFFECTS</b> : Not available. <b>TERATOGENIC EFFECTS</b> : Not available. <b>DEVELOPMENTAL TOXICITY</b> Not available. Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.

## Section IV. First Aid Measures

Eye Contact	Check for and remove any contact lenses. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thoroughly wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. Cover the irritated skin with an emollient. Seek medical attention. Treat symptomatically and supportively. Wash any contaminated clothing before reusing.
Inhalation	Evacuate 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 artificial respiration. WARNING: It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation when the inhaled material is toxic, infectious or corrosive. Seek immediate medical attention and, if possible, show the chemical label. Treat symptomatically and supportively.
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, administer artificial respiration. 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 and, if possible, show the chemical label. Treat symptomatically and supportively.

## Section V. Fire and Explosion Data

Flammability	Flammable.	Auto-Ignition	478°C (892.4°F)
Flash Points	7°C (44.6°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO <sub>2</sub> ).		
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 and sparks, of heat.		

Continued on Next Page

Emergency phone number (800) 424-9300

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. No additional information is available regarding the risks of explosion.
Fire Fighting Media and Instructions	Flammable liquid. SMALL FIRE: Use DRY chemicals, CO <sub>2</sub> , alcohol foam or water spray. LARGE FIRE: Use alcohol foam, water spray or fog.

### Section VI. Accidental Release Measures

Spill Cleanup Instructions	Flammable liquid. Irritating material. Keep away from heat and sources of ignition. 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. Eliminate all sources of ignition. Consult federal, state, and/or local authorities for assistance on disposal.
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### Section VII. Handling and Storage

Handling and Storage Information	FLAMMABLE. IRRITANT. Handle with caution and minimize exposure. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Treat symptomatically and supportively. Avoid contact with skin and eyes. Always store away from incompatible compounds such as oxidizing agents, acids, alkalis (bases), moisture. Reactive with strong oxidizers; may be ignited by heat, sparks or flames. Vapors may travel to source of ignition and flash back. Closed containers may explode from heat of a fire. Empty containers may pose a fire risk. Evaporate residue under a fume hood if possible. Ground all equipment containing material. Handle with caution and minimize exposure. Keep away from heat and sources of ignition. Tightly seal container and store in a cool, dry place. Use only non-sparking hand tool when handling this product.
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### 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 and dust respirator. Boots. Gloves. A MSHA/NIOSH approved respirator must be used to avoid inhalation of the product. 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	Colorless liquid.	Solubility	Soluble in 23 parts water @ 27°C. Miscible with alcohol, ether.
Specific Gravity	0.872		
Molecular Weight	102.13	Partition Coefficient	Not available.
Boiling Point	89°C (192.2°F)	Vapor Pressure	47 mm Hg @ 20°C
Melting Point	-73°C (-99.4°F)	Vapor Density	3.5
Refractive Index	1.3773 @ 20°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Aromatic odor.
Viscosity	Not available.	Taste	A sweet apple-like flavor.

### 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, acids, alkalis (bases), moisture and heat.

### Section XI. Toxicological Information

RTECS Number	AI4930000
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD <sub>50</sub> (oral) 6750mg/kg Rabbit LD <sub>50</sub> (dermal) >20mL/kg Rat LD <sub>50</sub> (inhalation) 50600mg/m <sup>3</sup> /8H

Chronic Toxic Effects	<p><b>CARCINOGENIC EFFECTS</b> : Not available.</p> <p><b>MUTAGENIC EFFECTS</b> : Not available.</p> <p><b>TERATOGENIC EFFECTS</b> : Not available.</p> <p><b>DEVELOPMENTAL TOXICITY</b> Not available.</p> <p>Repeated exposure to an highly toxic material may produce general deterioration of health by an accumulation in one or many human organs.</p>
Acute Toxic Effects	<p>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.</p>

## Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	<p>Isopropyl acetate's production and use as a fragrance ingredient, its use in the manufacture of plastics, artificial leather, dopes, films, and cements, as well as its presence in grape juice, nectarine, apple and milk volatiles may result in its release to the environment through various waste streams. If released to air, a vapor pressure of 60.4 mm Hg at 25°C indicates isopropyl acetate will exist solely as a vapor in the ambient atmosphere. Vapor-phase isopropyl acetate will be degraded in the atmosphere with an estimated half-life of 4.6 days by reaction with photochemically-produced hydroxyl radicals. If released to soil, isopropyl acetate is expected to have very high mobility based upon an estimated Koc of 15. Volatilization from moist soil surfaces is expected to be an important fate process based upon a Henry's Law constant of 2.78X10<sup>-4</sup> atm-cu m/mole. The potential for volatilization of isopropyl acetate from dry soil surfaces may exist based on a vapor pressure of 60.4 mm Hg. If released into water, isopropyl acetate is not expected to adsorb to suspended solids and sediment in water based on the estimated Koc. Isopropyl acetate was determined to have a 5 day BOD of 61% using a settled domestic wastewater seed, and BOD's of 72%, 74% and 76% after 10, 15 and 20 days, respectively. When the same inoculum was added to synthetic sea water, the 5, 10, 15 and 20 day BOD's were 14%, 39%, 43%, 49%, respectively. Volatilization from water surfaces is expected to be an important fate process based on its Henry's Law constant. Estimated volatilization half-lives for a model river and model lake are 6 hours and 5 days, respectively. A base-catalyzed second-order hydrolysis rate constant of 9.1X10<sup>-2</sup>L/mol-sec was estimated using a structure estimation method; this corresponds to half-lives of 2.4 years and 88 days at pH values of 7 and 8, respectively. An estimated BCF of 2 suggests bioconcentration in aquatic organisms is low. Occupational exposure to isopropyl acetate may occur through inhalation and dermal contact with this compound at workplaces where isopropyl acetate is produced or used. The general population will be exposed to isopropyl acetate via inhalation of ambient air and volatiles of grape juice, nectarines, apples and milk, ingestion of drinking water, and dermal contact with vapors, food and other products containing isopropyl acetate.</p>

## Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. You may dissolve 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 local regulations when disposing of this substance.
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## Section XIV. Transport Information

DOT Classification	DOT CLASS 3: Flammable liquid.
PIN Number	UN1220
Proper Shipping Name	Isopropyl Acetate
Packing Group (PG)	II
DOT Pictograms	

## Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This compound is <b>ON</b> 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)	203-561-1
EEC Risk Statements	<p>R11- Highly flammable.</p> <p>R18- In use, may form flammable/explosive vapor-air mixture.</p> <p>R36/37/38- Irritating to eyes, respiratory system and skin.</p>
Japanese Regulatory Data	Not available.

**Section XVI. Other Information****Version 1.0****Validated on 3/10/1999.****Printed 1/10/2005.****Notice to Reader**

TCI laboratory chemicals are for research purposes only and are NOT intended for use as drugs, food additives, households, or pesticides. The information herein is believed to be correct, but does not claim to be all inclusive and should be used only as a guide. Neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All chemical reagents must be handled with the recognition that their chemical, physiological, toxicological, and hazardous properties have not been fully investigated or determined. All chemical reagents should be handled only by individuals who are familiar with their potential hazards and who have been fully trained in proper safety, laboratory, and chemical handling procedures. Although certain hazards are described herein, we can not guarantee that these are the only hazards which exist. Our MSDS sheets are based only on data available at the time of shipping and are subject to change without notice as new information is obtained. Avoid long storage periods since the product is subject to degradation with age and may become more dangerous or hazardous. It is the responsibility of the user to request updated MSDS sheets for products that are stored for extended periods. Disposal of unused product must be undertaken by qualified personnel who are knowledgeable in all applicable regulations and follow all pertinent safety precautions including the use of appropriate protective equipment (e.g. protective goggles, protective clothing, breathing equipment, facial mask, fume hood). For proper handling and disposal, always comply with federal, state, and local regulations.

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