

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
  	Flammable material; avoid heat and sources of ignition. Harmful compound, minimize exposure. Irritating to skin, eyes, and the respiratory system. Vesicant- causes blisters. Light sensitive. Refrigerate and vent pressure slowly before opening. Carcinogenic material.	   

Section I. Chemical Product and Company Identification

Chemical Name	Acetic Acid Vinyl Ester, Monomer (stabilized with HQ)		
Catalog Number	A0045	Supplier	TCl America 9211 N. Harbrogate St. Portland OR 1-800-423-8616
Synonym	Vinyl Acetate, Monomer		
Chemical Formula	CH ₃ COOCH:CH ₂		
CAS Number	108-05-4	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
Acetic Acid Vinyl Ester, Monomer (stabilized with HQ)	108-05-4	Min. 99.0 (GC)	This chemical is classified as a possible carcinogen. There is no acceptable exposure limit for a carcinogen.	Rat LD ₅₀ (oral) 2920mg/kg Mouse LD ₅₀ (oral) 1613mg/kg Rat LC ₅₀ (inhalation) 11400mg/m ³ /4H Rabbit LD ₅₀ (dermal) 2335mg/kg

Section III. Hazards Identification

Acute Health Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. 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. Vesicant- causes blisters. 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 : Tumorigenic: rat (inhalation) 600ppm/6H/5D/2 years intermittent. Tumorigenic- Equivocal tumorigenic. rat (oral) 100000mg/kg/2 year continuous. Tumorigenic- Carcinogenic by RTECS criteria. DEVELOPMENTAL TOXICITY Reproductive: rat (oral) 9100mg/kg. Duration: female multigenerations. Maternal effects- Other effects. rat (oral) 500mg/kg/D. Duration: female multigenerations. Effects on fertility- Male fertility index. 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. IMMEDIATELY flush eyes with running water for at least 15 minutes. Keeping eyelids open. COLD water may be used. DO NOT use an eye ointment. Flush eyes with running water for a minimum of 15 minutes, occasionally lifting the upper eyelids. Seek medical attention. Treat symptomatically and supportively.
Skin Contact	After contact with skin, wash immediately with plenty of water. Gently and thorough wash the contaminated skin with running water and non-abrasive soap. Be particularly careful to clean folds, crevices, creases and groin. COLD water may be used. 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	426°C (798.8°F)
Flash Points	-8°C (17.6°F).	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO ₂).		
Fire Hazards	No specific information is available regarding the flammability of this compound in the presence of various materials.		
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 ₂ , alcohol foam or water spray. LARGE FIRE: Use alcohol foam, water spray or fog.		

Section VI. Accidental Release Measures

Spill Cleanup Instructions	Flammable liquid. Harmful material. Irritating material. Refrigerate material. Light sensitive 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. HARMFUL. IRRITANT. REFRIGERATE. LIGHT-SENSITIVE. Handle with caution and minimize exposure. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Wear suitable protective clothing. 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, acids, alkalis (bases).
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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. Dust respirator. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
	
Exposure Limits	This chemical is classified as a possible carcinogen. There is no acceptable exposure limit for a carcinogen.

Section IX. Physical and Chemical Properties

Physical state @ 20°C	Colorless liquid.	Solubility	Soluble in ethane, acetone, chloroform, water @ 20°C, 1g/50mL. Miscible with organic liquids.
Specific Gravity	0.934		
Molecular Weight	86.09	Partition Coefficient	Not available.
Boiling Point	72 to 73°C (161.6 to 163.4°F)	Vapor Pressure	88 mm Hg @ 20°C
Melting Point	-93°C (-135.4°F)	Vapor Density	3
Refractive Index	1.3959 @ 20°C	Volatility	Not available.
Critical Temperature	Not available.	Odor	Sweet smell in small quantities.
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 heat. Avoid excessive heat and light.
Incompatibilities	Reactive with oxidizing agents, acids, alkalis (bases), and peroxides.

Section XI. Toxicological Information

RTECS Number	AK0875000
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Rat LD ₅₀ (oral) 2920mg/kg Mouse LD ₅₀ (oral) 1613mg/kg Rat LC ₅₀ (inhalation) 11400mg/m ³ /4H Rabbit LD ₅₀ (dermal) 2335mg/kg
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Acute Toxic Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. 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. Vesicant- causes blisters. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity	Not available.
Environmental Fate	Vinyl acetate is primarily released to the environment from industrial emissions. It is degraded relatively rapidly in the environment by chemical processes, and appears to be susceptible to biodegradation as well. If released to the atmosphere, vinyl acetate is degraded rapidly by reaction with photochemically produced hydroxyl radicals (estimated half-life of 12 hours in a typical atmosphere). If released to water, degradation by hydrolysis (half-life of 7.3 days at 25°C and pH 7) and by photochemically produced oxidants will occur. Volatilization from water may be an important fate process (half-lives of 4.4 hr and 2.2 days have been estimated for a model river (1 m deep) and a model pond, respectively). If released to soil, hydrolysis will occur in the presence of moisture. Although leaching is possible, concurrent hydrolysis will decrease its importance. Evaporation from dry surfaces will occur. If released in a spill situation, significant polymerization may occur. Primary human exposure to vinyl acetate most likely results through inhalation at occupational settings.

Section XIII. Disposal Considerations

Waste Disposal	Recycle to process, if possible. Consult your local or regional authorities. You may be able to 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 the substance.
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Section XIV. Transport Information

DOT Classification	DOT CLASS 3: Flammable liquid.
PIN Number	UN1301
Proper Shipping Name	Vinyl acetate, inhibited
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)	203-545-4
EEC Risk Statements	R11- Highly flammable. R18- In use, may form flammable/explosive vapor-air mixture. R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R36/37/38- Irritating to eyes, respiratory system and skin. R45- May cause cancer.
Japanese Regulatory Data	Not available.

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Emergency phone number (800) 424-9300

Section XVI. Other Information**Version 1.0****Validated on 10/14/1998.****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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