

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
	Harmful compound, minimize exposure.	

Section I. Chemical Product and Company Identification

Chemical Name	Triacetin		
Catalog Number	G0086	Supplier	TCl America 9211 N. Harborage St. Portland OR 1-800-423-8616
Synonym	Glycerol Triacetate		
Chemical Formula	CH ₃ COOCH(CH ₂ OCOCH ₃) ₂		
CAS Number	102-76-1	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
Triacetin	102-76-1	Min. 98.0 (GC)	Not available.	Rat LD ₅₀ (oral) 3000 mg/kg Rat LD ₅₀ (intraperitoneal) 2100 mg/kg Rat LD ₅₀ (subcutaneous) 2800 mg/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. 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. There is no known effect from chronic exposure to this product. 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. 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	If the chemical gets spilled on a clothed portion of the body, remove the contaminated clothes as quickly as possible, protecting your own hands and body. Place the victim under a deluge shower. If the chemical touches the victim's exposed skin, such as the hands: 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	If the victim is not breathing, perform artificial respiration. Loosen tight clothing such as a collar, tie, belt or waistband. If breathing is difficult, oxygen can be administered. Seek medical attention. 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	Combustible.	Auto-Ignition	431°C (807.8°F)
Flash Points	144°C (291.2°F).	Flammable Limits	LOWER: 1.05% UPPER: 7.73%
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.		

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Emergency phone number (800) 424-9300

Fire Fighting Media
and Instructions

SMALL FIRE: Use DRY chemicals, CO₂, water spray or foam.
LARGE FIRE: Use water spray, fog or foam. DO NOT use water jet.

Section VI. Accidental Release Measures

Spill Cleanup
Instructions

Harmful material.
Keep away from heat and sources of ignition. Mechanical exhaust required. Stop leak if without risk. Consult federal, state, and/or local authorities for assistance on disposal.

Section VII. Handling and Storage

Handling and Storage
Information

HARMFUL. Keep away from heat and sources of ignition. Mechanical exhaust required. When not in use, tightly seal the container and store in a dry, cool place. Avoid excessive heat and light. Do not breathe gas, fumes, vapor or spray. In case of insufficient ventilation, wear suitable respiratory equipment. If you feel unwell, seek medical attention and show the label when possible. Treat symptomatically and supportively. Avoid contact with skin and eyes.
Always store away from incompatible compounds such as oxidizing agents.

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. 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 benzene, and acetone. Slightly soluble in carbon disulfide. Miscible with alcohol, ether, chloroform.
Specific Gravity	1.16 (water=1)	Partition Coefficient	Not available.
Molecular Weight	218.21	Vapor Pressure	Not available.
Boiling Point	258 to 260°C (496.4 to 500°F)	Vapor Density	7.52 (Air = 1)
Melting Point	Not available.	Volatility	Not available.
Refractive Index	Not available.	Odor	Not available.
Critical Temperature	Not available.	Taste	Not available.
Viscosity	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.

Section XI. Toxicological Information

RTECS Number	AK3675000
Routes of Exposure	Eye contact. Inhalation. Ingestion.
Toxicity Data	Rat LD ₅₀ (oral) 3000 mg/kg Rat LD ₅₀ (intraperitoneal) 2100 mg/kg Rat LD ₅₀ (subcutaneous) 2800 mg/kg
Chronic Toxic Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. There is no known effect from chronic exposure to this product. Repeated or prolonged exposure to this compound is not known to aggravate existing medical conditions.
Acute Toxic Effects	Harmful if ingested or inhaled. Minimize exposure to this material. Severe overexposure can result in injury or death. Follow safe industrial hygiene practices and always wear proper protective equipment when handling this compound.

Section XII. Ecological Information

Ecotoxicity Not available.

Environmental Fate Triacetin may be released to the environment in wastewater and evaporative emissions associated with its use in the perfume and cosmetics industries and its use as a solvent and CO₂ remover from natural gas. If released to the atmosphere, triacetin will degrade in the vapor-phase by reaction with photochemically produced hydroxyl radicals (estimated half-life of 2 days). If released to alkaline water or moist soil, triacetin can degrade through aqueous hydrolysis; aqueous hydrolysis half-lives at pH 7, 8, and 9 have been estimated to be 130, 13, and 1.3 days, respectively. Triacetin may leach readily in soil based upon an estimated K_{oc} value of 10.5. Insufficient data are available to predict the relative importance of biodegradation in soil or water. Occupational exposure can occur through dermal contact and inhalation. Triacetin's use as topical antifungal and perfume fixative will expose users to direct skin contact. (HSDB)

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 this substance.

Section XIV. Transport Information

DOT Classification Not a DOT controlled material (United States).

PIN Number Not applicable.

Proper Shipping Name Not applicable.

Packing Group (PG) Not applicable.

DOT Pictograms

**Section XV. Other Regulatory Information and Pictograms**

TSCA Chemical Inventory (EPA) This product is **ON** the EPA Toxic Substance Control Act (TSCA) inventory.

WHMIS Classification (Canada) Not controlled under WHMIS (Canada).

EINECS Number (EEC) 203-051-9

EEC Risk Statements 22- Harmful if ingested.

Japanese Regulatory Data Not available.

Section XVI. Other Information

Version 1.0

Validated on 6/10/1997.

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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.