

Material Safety Data Sheet

HAZARD WARNINGS	RISK PHRASES	PROTECTIVE CLOTHING
   	<p>Extremely flammable material; avoid heat and sources of ignition.</p> <p>Corrosive to eyes and skin on contact.</p> <p>REACTS VIOLENTLY WITH WATER.</p> <p>May form explosive peroxides.</p> <p>Harmful compound, minimize exposure.</p> <p>Irritating to skin, eyes, and the respiratory system.</p>	

Section I. Chemical Product and Company Identification

Chemical Name	Vinylmagnesium Bromide (ca 1mol/l Tetrahydrofuran solution)		
Catalog Number	V0053	Supplier	TCI America 9211 N. Harbortgate St. Portland OR 1-800-423-8616
Synonym	Vinylmagnesium bromide		
Chemical Formula	CH ₂ :CHMgBr		
CAS Number	1826-67-1, 109-99-9	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
Vinylmagnesium Bromide (ca 1mol/l Tetrahydrofuran solution)	1826-67-1, 109-99-9	approx. 13% to 87%	Not available.	Not available.

Section III. Hazards Identification

Acute Health Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. 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. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

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. 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	DO NOT induce vomiting. 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	320°C
Flash Points	-17°C (1.4°F) (THF)	Flammable Limits	Not available.
Combustion Products	These products are toxic carbon oxides (CO, CO ₂). Some metallic oxides, halogenated compounds.		
Fire Hazards	Reacts with water to liberate flammable and/or explosive gas.		
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	EXTREMELY FLAMMABLE. DO NOT USE WATER. SMALL FIRE: Use DRY chemicals, CO ₂ . LARGE FIRE: Use DRY chemicals, CO ₂ .		

Section VI. Accidental Release Measures	
Spill Cleanup Instructions	Extremely flammable liquid. Corrosive liquid. Reacts violently with water. May form explosive peroxides. Harmful 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 get water inside container. DO NOT touch spilled material. Use water spray curtain to divert vapor drift. 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.

Section VII. Handling and Storage	
Handling and Storage Information	EXTREMELY FLAMMABLE. CORROSIVE. REACTS VIOLENTLY WITH WATER. MAY FORM EXPLOSIVE PEROXIDES. HARMFUL. Keep under inert atmosphere. Keep container dry. DO NOT ingest. Do not breathe gas, fumes, vapor or spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatible compounds such as oxidizing agents, acids, 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	Face shield. Lab coat. Vapor respirator. Boots. Gloves. Synthetic apron. A MSHA/NIOSH approved respirator should 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	Amber liquid.	Solubility	Not available.
Specific Gravity	0.981		
Molecular Weight	131.25	Partition Coefficient	Not available.
Boiling Point	65 to 67°C (THF)	Vapor Pressure	143 mm Hg @ 20°C
Melting Point	-108°C (-162.4°F)	Vapor Density	2.5
Refractive Index	Not available.	Volatility	Not available.
Critical Temperature	Not available.	Odor	Not available.
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	Reacts violently with water. May decompose on exposure to light. Avoid depletion of inhibitor. Avoid excessive heat and light.
Incompatibilities	Reactive with moisture, oxygen, oxidizing agents, acids, bases, and alcohols.

Section XI. Toxicological Information

RTECS Number	Not available.
Routes of Exposure	Eye contact. Ingestion. Inhalation. Skin contact.
Toxicity Data	Not available.
Chronic Toxic Effects	CARCINOGENIC EFFECTS : Not available. MUTAGENIC EFFECTS : Not available. TERATOGENIC EFFECTS : Not available. DEVELOPMENTAL TOXICITY Not available. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.
Acute Toxic Effects	Corrosive to skin, eyes, and respiratory system. Liquid or spray mist may produce tissue damage, particularly in mucous membranes of the eyes, mouth and respiratory tract. Skin contact may produce burns. Eye contact can result in corneal damage or blindness. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Corrosive materials may cause serious injury if ingested. 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	Not available.

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.
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Section XIV. Transport Information

DOT Classification	DOT CLASS 4.3: Material that emits flammable gases on contact with water. DOT CLASS 3: Flammable liquid.
PIN Number	UN3399
Proper Shipping Name	Organometallic substance, liquid, water-reactive, flammable
Packing Group (PG)	I
DOT Pictograms	

Section XV. Other Regulatory Information and Pictograms

TSCA Chemical Inventory (EPA)	This product is ON the EPA Toxic Substances Control Act (TSCA) inventory.
WHMIS Classification (Canada)	WHMIS CLASS B-2: Flammable liquid with a flash point lower than 35°C (100°F). WHMIS CLASS E: Corrosive liquid.
EINECS Number (EEC)	217-375-3
EEC Risk Statements	R12- Extremely flammable. R14/15- Reacts violently with water, liberating highly flammable gases. R20/21/22- Harmful by inhalation, in contact with skin and if swallowed. R34- Causes burns.
Japanese Regulatory Data	Not available.

Section XVI. Other Information

Version 1.0
Validated on 2/4/1998.
Printed 2/23/2005.

Notice to Reader

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Emergency phone number (800) 424-9300

TCl 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.