

1 - Product and Company Information

ProductName2-THIENYLMAGNESIUM BROMIDE SOLUTION, 1.0M IN TETRAHYDROFURAN

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT

Highly flammable. Reacts violently with water. May form explosive peroxides. Harmful if swallowed. Causes burns. Limited evidence of a carcinogenic effect.

3 - Composition/Information on Ingredients

2-THIENYLMAGNESIUM BROMIDE SOLUTION 1.0 M IN TETRAHYDROFURAN		None	None	None
Ingredient Name	Percent	CAS #	EC no	Annex I
TETRAHYDROFURAN 81.266 109-99-9 203-726-8 (Inhibitor free) Symbols: F-Xi R-Phrases: 11-19-36/37 Highly flammable. May form explosive peroxides. Irritating to eyes and respiratory system.				None
THIOPHEN-2-YL-MAGNESIUM BROMIDE	18.73	5713-61-1	None	None
Formula	C4H3BRMGs			
Molecular Weight	187.34 AMU			
4 - First Aid Measures				
AFTER INHALATION				

4 - First Aid Measures

AFTER INHALATION

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

AFTER SKIN CONTACT

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

AFTER EYE CONTACT

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

AFTER INGESTION

If swallowed, wash out mouth with water provided person is conscious. Call a physician.

5 - Fire Fighting Measures

EXTINGUISHING MEDIA

Suitable: Dry chemical powder.

Unsuitable: Do not use water.

SPECIAL RISKS

Specific Hazard(s): Flammable liquid. Emits toxic fumes under fire conditions. Vapor may travel considerable distance to source of ignition and flash back.

Explosion Hazards: Container explosion may occur under fire conditions.

SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SPECIFIC METHOD(S) OF FIRE FIGHTING

Use water spray to cool fire-exposed containers.

6 - Accidental Release Measures

PERSONAL PRECAUTION PROCEDURES TO BE FOLLOWED IN CASE OF LEAK OR SPILL

Evacuate area. Shut off all sources of ignition.

PROCEDURE(S) OF PERSONAL PRECAUTION(S)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

METHODS FOR CLEANING UP

Cover with dry-lime, sand, or soda ash. Place in covered containers using non-sparking tools and transport outdoors.

Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

HANDLING

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged or repeated exposure.

STORAGE

Conditions of Storage: Keep tightly closed. Keep away from heat, sparks, and open flame. Store in a cool dry place. Handle and store under nitrogen.

Incompatible Materials: Do not allow contact with water

SPECIAL REQUIREMENTS: Light sensitive.

8 - Exposure Controls / Personal Protection

ENGINEERING CONTROLS

Safety shower and eye bath. Use nonsparking tools. Mechanical exhaust required.

GENERAL HYGIENE MEASURES

Wash thoroughly after handling. Wash contaminated clothing before reuse.

PERSONAL PROTECTIVE EQUIPMENT

Respiratory Protection: Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU). Where risk assessment shows air-purifying respirators

are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as

a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

Hand Protection: Compatible chemical-resistant gloves.

Eye Protection: Chemical safety goggles.

9 - Physical and Chemical Properties

Appearance	Physical State: Liquid Color: Clear Orange Brown	
Property	Value	At Temperature or Pressure
pH	N/A	
BP/BP Range	65 °C	760 mmHg
MP/MP Range	N/A	
Flash Point	- 21.1 °C	Method: closed cup
Flammability	N/A	
Autoignition Temp	N/A	
Oxidizing Properties	N/A	
Explosive Properties	N/A	
Explosion Limits	N/A	
Vapor Pressure	N/A	
SG/Density	1.011 g/cm3	
Partition Coefficient	N/A	
Viscosity	N/A	
Vapor Density	N/A	
Saturated Vapor Conc.	N/A	
Evaporation Rate	N/A	
Bulk Density	N/A	
Decomposition Temp.	N/A	
Solvent Content	N/A	
Water Content	N/A	
Surface Tension	N/A	
Conductivity	N/A	
Miscellaneous Data	N/A	
Solubility	N/A	

10 - Stability and Reactivity

STABILITY

Conditions to Avoid: Explosive peroxides may form upon exposure of phenylmagnesium bromide to light, especially sunlight.

Materials to Avoid: Acids, Alcohols, Oxygen, Oxidizing agents

Reacts violently with water.

HAZARDOUS DECOMPOSITION PRODUCTS

Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen bromide gas, Magnesium oxide.

HAZARDOUS POLYMERIZATION

Hazardous Polymerization: Will not occur

11 - Toxicological Information

SIGNS AND SYMPTOMS OF EXPOSURE

Coughing, chest pains, difficulty in breathing. Narcotic effect.

Exposure can cause: Can cause CNS depression. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin. Inhalation may result

in spasm, inflammation and edema of the larynxand bronchi,

chemical pneumonitis, and pulmonary edema. Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis,

shortness of breath, headache, nausea, and vomiting. Prolonged or repeated exposure to skin causes defatting and dermatitis.

ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Skin Absorption: May be harmful if absorbed through the skin.

Eye Contact: Causes burns.

Inhalation: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: Harmful if swallowed.

TARGET ORGAN INFORMATION

Skeletal muscle. G.I. System. Kidneys. Liver. Central nervous system.

CHRONIC EXPOSURE - CARCINOGEN

Result: This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

12 - Ecological Information

No data available.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

Contact a licensed professional waste disposal service to of this material. Burn in a chemical incinerator equipped

afterburner and scrubber but exert extra care in igniting material is highly flammable. Observe all federal, state,

local environmental regulations.

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14 - Transport Information

RID/ADR

UN#: 2924

Class: 3

PG: II

Subrisk: 8

Proper Shipping Name: Flammable liquid, corrosive, n.o.s.

IMDG

UN#: 2924

Class: 3

PG: II

Subrisk: 8

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE, N.O.S.

Marine Pollutant: No

Severe Marine Pollutant: No

Technical Name: Required

IATA

UN#: 2924

Class: 3

PG: II

Subrisk: 8

Proper Shipping Name: Flammable liquid, corrosive, n.o.s.

Inhalation Packing Group I: No

Technical Name: Required

15 - Regulatory Information

CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES

INDICATION OF DANGER: F-C

Highly Flammable. Corrosive.

R-PHRASES: 11-14-19-22-34-40

Highly flammable. Reacts violently with water. May form explosive peroxides. Harmful if swallowed. Causes burns.

Limited evidence of a carcinogenic effect.

S-PHRASES: 16-26-36/37/39-45

Keep away from sources of ignition - no smoking. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing, gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Caution: Substance not yet fully tested (EU).

COUNTRY SPECIFIC INFORMATION

Germany

WGK: 1

Self-Classification

16 - Other Information



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WARRANTY:

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