DIETHYL ETHER

2 - Hazards Identification

SPECIAL INDICATION OF HAZARDS TO HUMANS AND THE ENVIRONMENT Extremely flammable. May form explosive peroxides. Harmful if

swallowed. Causes burns. Vapors may cause drowsiness and dizziness.

3 - Composition/Information on Ingredients

CAS# EC no Product Name Annex I 2-BIPHENYLMAGNESIUM BROMIDE, 0.5M None None None SOLUTION IN DIETHYL ETHER Ingredient Name Percent CAS# EC no Annex I DIETHYL ETHER, INHIBITOR 87 60-29-7 200-467-2 None **FREE** Symbols: F+-Xn R-Phrases: 12-19-22-66-67

Extremely flammable. May form explosive peroxides. Harmful if

Vapors may cause drowsiness and dizziness. BIPHENYL-2-YLMAGNESIUM 82214-69-5 None None **BROMIDE**

swallowed. Repeated exposure may cause skin dryness or cracking.

257.41 AMU Molecular Weight

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 contact, immediately wash skin with soap and copious

amounts of water. AFTER EYE CONTACT

In case of contact, immediately flush eyes with copious amounts

of water for at least 15 minutes. AFTER INGESTION

If swallowed, wash out mouth with water provided person is

conscious. Call a physician. Do not induce vomiting. 5 - Fire Fighting Measures

foam.

EXTINGUISHING MEDIA Suitable: Carbon dioxide, dry chemical powder, or appropriate

Unsuitable: Do not use water.

SPECIAL RISKS

considerable distance to source of ignition and flash back. Explosion Hazards: Vapor may travel considerable distance to source of ignition and flash back. Container explosion may occur under fire conditions. SPECIAL PROTECTIVE EQUIPMENT FOR FIREFIGHTERS

Wear self-contained breathing apparatus and protective clothing

Specific Hazard(s): Extremely flammable. Vapor may travel

SPECIFIC METHOD(S) OF FIRE FIGHTING Use water spray to cool fire-exposed containers.

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)

to prevent contact with skin and eyes.

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

6 - Accidental Release Measures

METHODS FOR CLEANING UP

containers using non-sparking tools and transport outdoors. Ventilate area and wash spill site after material pickup is complete.

7 - Handling and Storage

Directions for Safe Handling: Do not breathe vapor. Avoid contact with eyes, skin, and clothing. **STORAGE** Conditions of Storage: Keep tightly closed. Keep away from heat,

Cover with dry-lime, sand, or soda ash. Place in covered

sparks, and open flame. Handle and store under argon. Handle and store under nitrogen. Unsuitable: Forms explosive peroxides on prolonged storage

HANDLING

SPECIAL REQUIREMENTS: Handle and store under inert gas. Light sensitive. Air sensitive. Reacts violently with water. Heat sensitive. 8 - Exposure Controls / Personal Protection

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

shoes. Wash thoroughly after handling. PERSONAL PROTECTIVE EQUIPMENT

ENGINEERING CONTROLS

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

Wash contaminated clothing before reuse. Discard contaminated

Respiratory Protection: Use respirators and components tested and

means of protection, use a full-face supplied air respirator. Hand Protection: Compatible chemical-resistant gloves. Eye Protection: Chemical safety goggles.

Special Protective Measures: Faceshield (8-inch minimum). 9 - Physical and Chemical Properties Physical State: Liquid Appearance **Property** Value At Temperature or Pressure N/A BP/BP Range N/A MP/MP Range N/A Flash Point - 40.0 °C

N/A

N/A

N/A

N/A

N/A

N/A

N/A

Autoignition Temp Oxidizing Properties **Explosive Properties Explosion Limits**

pН

Flammability

Vapor Pressure

Partition Coefficient

Viscosity N/AVapor Density N/ASaturated Vapor Conc. N/AEvaporation Rate N/ABulk Density N/A Decomposition Temp. N/A Solvent Content N/A Water Content N/ASurface Tension N/AConductivity N/A N/AMiscellaneous Data Solubility N/A 10 - Stability and Reactivity **STABILITY** Stable: Stable. Conditions of Instability: May form peroxides of unknown stability. Conditions to Avoid: Do not allow water to enter container because of violent reaction. Air. Heat. Light. Materials to Avoid: Strong acids, Oxidizing agents. HAZARDOUS DECOMPOSITION PRODUCTS Hazardous Decomposition Products: Carbon monoxide, Carbon dioxide, Hydrogen bromide gas, Magnesium oxide. HAZARDOUS POLYMERIZATION

Method: closed cup

dispose

with an

as this

and

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly

SIGNS AND SYMPTOMS OF EXPOSURE

Hazardous Polymerization: Will not occur

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.

11 - Toxicological Information

investigated.

ROUTE OF EXPOSURE

Skin Contact: Causes burns.

Eye Contact: Causes burns.

respiratory tract. Ingestion: Harmful if swallowed. TARGET ORGAN INFORMATION Skeletal muscle. G.I. System. Liver. Kidneys. Central nervous system. 12 - Ecological Information No data available.

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,

Proper Shipping Name: Flammable liquid, corrosive,

Proper Shipping Name: Flammable liquid, corrosive,

Proper Shipping Name: FLAMMABLE LIQUID, CORROSIVE,

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

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

RID/ADR UN#: 2924 Class: 3

14 - Transport Information

PG: I Subrisk: 8

n.o.s.

UN#: 2924 Class: 3 PG: I Subrisk: 8

IMDG

local environmental regulations.

13 - Disposal Considerations

SUBSTANCE DISPOSAL

N.O.S. Marine Pollutant: No Severe Marine Pollutant: No Technical Name: Required **IATA** UN#: 2924

> Inhalation Packing Group I: No Technical Name: Required

R-PHRASES: 12-19-22-34-67

15 - Regulatory Information CLASSIFICATION AND LABELING ACCORDING TO EU DIRECTIVES INDICATION OF DANGER: F+-C

Class: 3 PG: I Subrisk: 8

swallowed. Causes burns. Vapors may cause drowsiness and S-PHRASES: 9-16-29-33-26-36/37/39-45 Keep container in a well-ventilated place. Keep away from sources of ignition - no smoking. Do not empty into drains.

Take precautionary measures against static discharges. In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wear suitable protective clothing,

Extremely flammable. May form explosive peroxides. Harmful if

gloves, and eye/face protection. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

Extremely Flammable. Corrosive.

Caution: Substance not yet fully tested (EU). COUNTRY SPECIFIC INFORMATION

16 - Other Information

WGK: 1

Germany

Self-Classification

For R&D use only. Not for drug, household or other uses.

WARRANTY: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Lookchem shall not be held liable for any damage www.lookchem.com resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.