



Phenylmagnesium Bromide		Pricing >
Linear Formula	C ₆ H ₅ MgBr	
Pubchem CID	66852	
MDL Number	MFCD00000038	
EC No.	202-867-2	
IUPAC Name	magnesium; benzene; bromide	
Beilstein/Reaxys No.	3588849	
SMILES	C1=CC=[C-]C=C1.[Mg+2].[Br-]	
InchI Identifier	InChI=1S/C6H5.BrH.Mg/c1-2-4-6-5-3-1;;/h1-5H;1H;/q-1;;+2/p-1	
InchI Key	NIXOIRLDFIPNLJ-UHFFFAOYSA-M	
Signal Word	Danger	
Hazard Statements	H225-H314-H318	
Hazard Codes	F, C	
Precautionary Statements	P210-P260-P303+P361+P353-P305+P351+P338-P405-P501	
Flash Point	-17 °C	
Risk Codes	R11 R14-19 R34	
Safety Statements	N/A	
Transport Information	UN 2924 8(3) / PGII	
WGK Germany	3	
GHS Pictograms	GHS02 Flame  GHS05 Corrosive 	

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SAFETY DATA SHEET

Date Accessed: 05/12/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #100-58-3

Relevant identified uses of the substance:
Scientific research and development

Supplier details:
American Elements
10884 Weyburn Ave.

Los Angeles, CA 90024
Tel: +1 310-208-0551
Fax: +1 310-208-0351

Emergency telephone number:
Domestic, North America +1 800-424-9300
International +1 703-527-3887

SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in
accordance with 29 CFR 1910 (OSHA HCS)

GHS02 Flame

Flam. Liq. 2

H225 Highly flammable liquid and vapor.

GHS05 Corrosion

Skin Corr. 1B H314 Causes severe skin burns and
eye damage.

Hazards not otherwise classified

No information known.

Label elements

GHS label elements

The product is classified and labeled in accordance
with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS02 GHS05

Signal word

Danger

Hazard-determining components of labeling:

Phenylmagnesium bromide

Hazard statements

H225 Highly flammable liquid and vapor.

H314 Causes severe skin burns and eye damage.

Precautionary statements

P210

Keep away from heat/sparks/open flames/hot
surfaces. No smoking.

P260

Do not breathe dust/fume/gas/mist/vapours/spray.

P303+P361+P353 If on skin (or hair): Take off
immediately all contaminated clothing. Rinse skin with
water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with
water for several minutes. Remove contact lenses, if
present and easy to do. Continue rinsing.

P405

Store locked up.

P501

Dispose of contents/container in accordance with

local/regional/national/international regulations.
WHMIS classification
D2B - Toxic material causing other toxic effects
E - Corrosive material
Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)
Health (acute effects) = 3
Flammability = 3
Physical Hazard = 2
Other hazards
Results of PBT and vPvB assessment
PBT:
Not applicable.
vPvB:
Not applicable.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical characterization: Mixtures
Dangerous components:
100-58-3 Phenylmagnesium bromide
Skin Corr. 1B, H314; Eye Dam. 1, H318
96-47-9 2-Methyltetrahydrofuran
Flam. Liq. 2, H225

SECTION 4. FIRST AID MEASURES

Description of first aid measures
General information
Immediately remove any clothing soiled by the product.
After inhalation
Supply fresh air. If required, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
After skin contact
Immediately wash with water and soap and rinse thoroughly.
Seek immediate medical advice.
After eye contact
Rinse opened eye for several minutes under running water. Then consult a doctor.
After swallowing
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and delayed
Causes severe skin burns.
Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed
No further relevant information available.

SECTION 5. FIREFIGHTING MEASURES

Extinguishing media

Suitable extinguishing agents

In case of fire, use sand, carbon dioxide or powdered extinguishing agent. Never use water.

For safety reasons unsuitable extinguishing agents

Water

Special hazards arising from the substance or mixture

Reacts violently with water

If this product is involved in a fire, the following can be released:

Carbon monoxide and carbon dioxide

Hydrogen bromide (HBr)

Metal oxide fume

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

Ensure adequate ventilation

Keep away from ignition sources

Environmental precautions:

Do not allow material to be released to the environment without proper governmental permits.

Methods and material for containment and cleaning up:

Keep away from ignition sources.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Use neutralizing agent.

Dispose of contaminated material as waste according to section 13.

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

Prevention of secondary hazards:

Keep away from ignition sources.

Reference to other sections

See Section 7 for information on safe handling

See Section 8 for information on personal protection

equipment.
See Section 13 for disposal information.

SECTION 7. HANDLING AND STORAGE

Handling

Precautions for safe handling

Handle under dry protective gas.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.

Ensure good ventilation at the workplace.

Open and handle container with care.

Information about protection against explosions and fires:

Protect against electrostatic charges.

Fumes can combine with air to form an explosive mixture.

Do not distill to dryness.

Explosive peroxides may form, handle container cautiously.

Conditions for safe storage, including any incompatibilities

Storage

Requirements to be met by storerooms and receptacles:

Store in a cool location.

Information about storage in one common storage facility:

Store away from air.

Store away from water/moisture.

Store away from strong bases.

Store away from oxidizing agents.

Further information about storage conditions:

Store under dry inert gas.

This product is moisture sensitive.

This product is air sensitive.

Protect from humidity and water.

Store in cool, dry conditions in well sealed containers.

Avoid contact with air/oxygen (formation of peroxide).

Check container pressure periodically to prevent explosive peroxides.

Specific end use(s)

No further relevant information available.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Additional information about design of technical systems:

Properly operating chemical fume hood designed for hazardous chemicals and having an average face

velocity of at least 100 feet per minute.
Control parameters
Components with limit values that require monitoring at the workplace:
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
Additional information:
No data
Exposure controls
Personal protective equipment
General protective and hygienic measures
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes and skin.
Maintain an ergonomically appropriate working environment.
Breathing equipment:
Use suitable respirator when high concentrations are present.
Protection of hands:
Impervious gloves
Check protective gloves prior to each use for their proper condition.
The selection of suitable gloves not only depends on the material, but also on quality. Quality will vary from manufacturer to manufacturer.
Penetration time of glove material (in minutes)
Not determined
Eye protection:
Tightly sealed goggles
Full face protection
Body protection:
Protective work clothing.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
General Information
Appearance:
Form: Liquid
Color: Not determined
Odor: Not determined
Odor threshold: Not determined.
pH-value: Not determined.
Change in condition
Melting point/Melting range: Not determined
Boiling point/Boiling range: Not determined

Sublimation temperature / start: Not determined
Flammability (solid, gaseous)
Not determined.
Ignition temperature: Not determined
Decomposition temperature: Not determined
Auto igniting: Product is not selfigniting.
Danger of explosion: May form explosive peroxides.
Do not distill to dryness.
Explosion limits:
Lower: Not determined
Upper: Not determined
Vapor pressure: Not determined
Density: Not determined
Relative density
Not determined.
Vapor density
Not determined.
Evaporation rate
Not determined.
Solubility in / Miscibility with Water: Reacts violently
Partition coefficient (n-octanol/water): Not determined.
Viscosity:
dynamic: Not determined.
kinematic: Not determined.
Other information
No further relevant information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity
Reacts violently with water.
May form explosive peroxides.
Chemical stability
Stable under recommended storage conditions.
Thermal decomposition / conditions to be avoided:
Decomposition will not occur if used and stored
according to specifications.
Possibility of hazardous reactions
Reacts with strong oxidizing agents
Reacts violently with water
May form explosive peroxides.
Conditions to avoid
No further relevant information available.
Incompatible materials:
Air
Bases
Oxidizing agents
Water/moisture
Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Hydrogen bromide
Metal oxide fume

SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute toxicity:

Swallowing will lead to a strong corrosive effect on mouth and throat and to the danger of perforation of esophagus and stomach.

LD/LC50 values that are relevant for classification:

96-47-9 2-Methyltetrahydrofuran

Dermal

LD50

4500 mg/kg (rabbit)

Inhalative LC50/4H 6000 ppm/4H (rat)

Skin irritation or corrosion:

Causes severe skin burns.

Eye irritation or corrosion:

Causes serious eye damage.

Sensitization:

No sensitizing effects known.

Germ cell mutagenicity:

No effects known.

Carcinogenicity:

No classification data on carcinogenic properties of this material is available from the EPA, IARC, NTP, OSHA or ACGIH.

Reproductive toxicity:

No effects known.

Specific target organ system toxicity - repeated exposure:

No effects known.

Specific target organ system toxicity - single exposure:

No effects known.

Aspiration hazard:

No effects known.

Subacute to chronic toxicity:

No effects known.

Additional toxicological information:

To the best of our knowledge the acute and chronic toxicity of this substance is not fully known.

The product shows the following dangers according to internally approved calculation methods for preparations:

Corrosive

SECTION 12. ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity:

No further relevant information available.

Persistence and degradability
No further relevant information available.
Bioaccumulative potential
No further relevant information available.
Mobility in soil
No further relevant information available.
Additional ecological information:
General notes:
Do not allow material to be released to the environment without proper governmental permits.
Do not allow undiluted product or large quantities to reach ground water, water course or sewage system.
Avoid transfer into the environment.
Results of PBT and vPvB assessment
PBT:
Not applicable.
vPvB:
Not applicable.
Other adverse effects
No further relevant information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation
Consult state, local or national regulations to ensure proper disposal.
Uncleaned packagings:
Recommendation:
Disposal must be made according to official regulations.

SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, IMDG, IATA
UN2924
UN proper shipping name
DOT
Flammable liquids, corrosive, n.o.s.
IMDG, IATA
FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Transport hazard class(es)
DOT
Class
3 Flammable liquids.
Label
3+8
Class
3 (FC) Flammable liquids

Label
3+8
IMDG, IATA
Class
3 Flammable liquids.
Label
3+8
Packing group
DOT, IMDG, IATA
II
Environmental hazards:
Marine pollutant (IMDG):
No
Special precautions for user
Warning: Flammable liquids
Transport in bulk according to Annex II of
MARPOL73/78 and the IBC Code
Not applicable.
Transport/Additional information:
DOT
Marine Pollutant (DOT):
No
UN "Model Regulation":
UN2924, Flammable liquids, corrosive, n.o.s., 3 (8), II

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental
regulations/legislation specific for the substance or
mixture
GHS label elements
The product is classified and labeled in accordance
with 29 CFR 1910 (OSHA HCS)
Hazard pictograms
GHS02
GHS05
Signal word
Danger
Hazard-determining components of labeling:
Phenylmagnesium bromide
Hazard statements
H225 Highly flammable liquid and vapor.
H314 Causes severe skin burns and eye damage.
Precautionary statements
P210
Keep away from heat/sparks/open flames/hot
surfaces. No smoking.
P260
Do not breathe dust/fume/gas/mist/vapours/spray.
P303+P361+P353 If on skin (or hair): Take off
immediately all contaminated clothing. Rinse skin with
water/shower.

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

National regulations

All components of this product are listed in the U.S. Environmental Protection Agency Toxic Substances Control Act Chemical substance Inventory.

Some or all of the components of this product are not listed on the Canadian Domestic Substances List (DSL) or the Canadian Non-Domestic Substances List (NDSL).

SARA Section 313 (specific toxic chemical listings)

None of the ingredients are listed.

California Proposition 65

Prop 65 - Chemicals known to cause cancer

None of the ingredients are listed.

Prop 65 - Developmental toxicity

None of the ingredients are listed.

Prop 65 - Developmental toxicity, female

None of the ingredients are listed.

Prop 65 - Developmental toxicity, male

None of the ingredients are listed.

Information about limitation of use:

For use only by technically qualified individuals.

Other regulations, limitations and prohibitive regulations

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.

None of the ingredients are listed.

The conditions of restrictions according to Article 67 and Annex XVII of the Regulation (EC) No 1907/2006 (REACH) for the manufacturing, placing on the market and use must be observed.

None of the ingredients is listed.

Annex XIV of the REACH Regulations (requiring Authorisation for use)

None of the ingredients is listed.

Chemical safety assessment:

A Chemical Safety Assessment has not been carried out.

16. OTHER INFORMATION

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH). 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. American Elements shall not be held liable for any damage 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. COPYRIGHT 1997-2022 AMERICAN ELEMENTS. LICENSED GRANTED TO MAKE UNLIMITED PAPER COPIES FOR INTERNAL USE ONLY.
