| Tetramethylsilane | Pricing > |
|---|---|

| | |
|---|---|
| **Linear Formula** | $Si(CH_3)_4$ |
| **Pubchem CID** | 6396 |
| **MDL Number** | MFCD00008274 |
| **EC No.** | 200-899-1 |
| **IUPAC Name** | tetramethylsilane |
| **Beilstein/Reaxys No.** | 1696908 |
| **SMILES** | C[Si](C)(C)C |
| **Inchl Identifier** | InChI=1S/C4H12Si/c1-5(2,3)4/h1-4H3 |
| **Inchl Key** | CZDYPVPMEAXLPK-UHFFFAOYSA-N |

| | |
|---|---|
| **Signal Word** | Danger |
| **Hazard Statements** | H224 |
| **Hazard Codes** | F+ |
| **Precautionary Statements** | P210 |
| **Flash Point** | -27 °C |
| **Risk Codes** | 12 |
| **Safety Statements** | 3/7-16-33-45 |
| **RTECS Number** | N/A |
| **Transport Information** | UN 2749 3/PG I |
| **WGK Germany** | 3 |
| **GHS Pictograms** | GHS02 Flame  |

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# SAFETY DATA SHEET

**Date Accessed:** 03/29/2024
**Date Revised:** 01/15/2022

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## SECTION 1. IDENTIFICATION

**Product Identifiers:** All applicable American Elements product codes for CAS #75-76-3

**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

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## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture in accordance with 29 CFR 1910 (OSHA HCS)
GHS02 Flame
Flam. Liq. 1 H224 Extremely flammable liquid and Vapor.
Hazards not otherwise classified
No data available
GHS label elements
GHS label elements, including precautionary statements
Hazard pictograms



GHS02
Signal word
Danger
Hazard statements
H224 Extremely flammable liquid and Vapor.
Precautionary statements
P210
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P280
Wear protective gloves/protective clothing/eye protection/face protection.
P240
Ground/bond container and receiving equipment.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235
Store in a well-ventilated place. Keep cool.

P501
Dispose of contents/container in accordance with local/regional/national/international regulations.
WHMIS classification
B2 - Flammable liquid
Classification system
HMIS ratings (scale 0-4)
(Hazardous Materials Identification System)
Health (acute effects) = 1
Flammability = 4
Physical Hazard = 1
Other hazards
Results of PBT and vPvB assessment
PBT:
N/A
vPvB:
N/A

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substances
CAS No. / Substance Name:
75-76-3 Tetramethylsilane
Identification number(s):
EC number: 200-899-1

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## SECTION 4. FIRST AID MEASURES

Description of first aid measures
If inhaled:
Supply patient with fresh air. If not breathing, provide artificial respiration. Keep patient warm.
Seek immediate medical advice.
In case of skin contact:
Immediately wash with soap and water; rinse thoroughly.
Seek immediate medical advice.
In case of eye contact:
Rinse opened eye for several minutes under running water. Consult a physician.
If swallowed:
Seek medical treatment.
Information for doctor
Most important symptoms and effects, both acute and delayed
No data available
Indication of any immediate medical attention and special treatment needed
No data available

## SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing agents
Carbon dioxide, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
Special hazards arising from the substance or mixture
If this product is involved in a fire, the following can be released:
Carbon monoxide and carbon dioxide
Silicon oxide
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
Use personal 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 official permits.
Methods and materials for containment and cleanup:
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
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
Keep container tightly sealed.
Keep away from heat and direct sunlight.
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.
Keep ignition sources away.
Conditions for safe storage, including any incompatibilities
Requirements to be met by storerooms and receptacles:
Refrigerate
Information about storage in one common storage facility:
Protect from heat.
Do not store together with acids.
Store away from strong bases.
Store away from oxidizing agents.
Further information about storage conditions:
Keep container tightly sealed.
Protect from heat and direct sunlight.
Refrigerate
Specific end use(s)
No data available

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## 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:
None.
Additional information:
No data
Exposure controls
Personal protective equipment
Follow typical protective and hygienic practices for handling chemicals.
Keep away from foodstuffs, beverages and feed.
Remove all soiled and contaminated clothing immediately.
Wash hands before breaks and at the end of work.
Maintain an ergonomically appropriate working environment.
Breathing equipment:
Use suitable respirator when high concentrations are present.
Use suitable respiratory protective device in case of insufficient ventilation.
Recommended filter device for short term use:
Use a respirator with organic vapor cartidges as a

backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropiate. Only use equipment tested and approved under appropriate government standards such as NIOSH (USA) or CEN (EU).
Protection of hands:
Impervious gloves
Inspect gloves prior to use.
Suitability of gloves should be determined both by material and quality, the latter of which may vary by manufacturer.
Material of gloves
Nitrile rubber, NBR
Penetration time of glove material (in minutes)
No data available
Eye protection:
Safety glasses
Body protection:
Protective work clothing.

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## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties
Appearance:
Form: Liquid
Color: Colorless
Odor: Mild
Odor threshold: No data available.
pH: No data available.
Melting point/Melting range: -100 °C (-148 °F)
Boiling point/Boiling range: 26-27 °C (79-81 °F)
Sublimation temperature / start: No data available
Flash point: -27 °C (-17 °F)
Flammability (solid, gas)
No data available.
Ignition temperature: 450 °C (842 °F)
Decomposition temperature: No data available
Autoignition: No data available.
Danger of explosion: Product is not explosive. However, formation of explosive air/vapor mixtures is possible.
Explosion limits:
Lower: 1 Vol %
Upper: 37.9 Vol %
Vapor pressure at 20 °C (68 °F): 750 hPa (563 mm Hg)

Density at 20 °C (68 °F): 0.646 g/cm$^3$ (5.391 lbs/gal)
Relative density
No data available.
Vapor density
No data available.
Evaporation rate

No data available.
Solubility in / Miscibility with Water at 25 °C (77 °F): 0.2 g/l
Partition coefficient (n-octanol/water): No data available.
Viscosity:
Dynamic: No data available.
Kinematic: No data available.
Other information
No data available

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## SECTION 10. STABILITY AND REACTIVITY

Reactivity
No data available
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
Conditions to avoid
No data available
Incompatible materials:
Acids
Bases
Oxidizing agents
Heat
Hazardous decomposition products:
Carbon monoxide and carbon dioxide
Silicon oxide

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## SECTION 11. TOXICOLOGICAL INFORMATION

Information on toxicological effects
Acute toxicity:
No effects known.
LD/LC50 values that are relevant for classification:
No data
Skin irritation or corrosion:
May cause irritation
Eye irritation or corrosion:
May cause irritation
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.

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## SECTION 12. ECOLOGICAL INFORMATION

Toxicity
Aquatic toxicity:
No data available
Persistence and degradability
No data available
Bioaccumulative potential
No data available
Mobility in soil
No data available
Additional ecological information:
Do not allow material to be released to the environment without official permits.
Do not allow undiluted product or large quantities to reach groundwater, water courses, or sewage systems.
Avoid transfer into the environment.
Results of PBT and vPvB assessment
PBT:
N/A
vPvB:
N/A
Other adverse effects
No data available

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## SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods
Recommendation
Consult official regulations to ensure proper disposal.
Uncleaned packagings:

Recommendation:
Disposal must be made according to official regulations.

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## SECTION 14. TRANSPORT INFORMATION

UN-Number
DOT, IMDG, IATA
UN2749
UN proper shipping name
DOT
Tetramethylsilane
IMDG, IATA
TETRAMETHYLSILANE
Transport hazard class(es)
DOT
Class
3 Flammable liquids.
Label
3
Class
3 (F1) Flammable liquids
Label
3
IMDG, IATA
Class
3 Flammable liquids.
Label
3
Packing group
DOT, IMDG, IATA
I
Environmental hazards:
N/A
Special precautions for user
Warning: Flammable liquids
EMS Number: F-E,S-D
Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code
N/A
Transport/Additional information:
DOT
Marine Pollutant (DOT):
No
UN "Model Regulation":
UN2749, Tetramethylsilane, 3, I

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## SECTION 15. REGULATORY INFORMATION

Safety, health and environmental

regulations/legislation specific for the substance or mixture
GHS GHS label elements, including precautionary statements
Hazard pictograms
GHS02
Signal word
Danger
Hazard statements
H224 Extremely flammable liquid and Vapor.
Precautionary statements
P210
Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P280
Wear protective gloves/protective clothing/eye protection/face protection.
P240
Ground/bond container and receiving equipment.
P303+P361+P353 If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P403+P235
Store in a well-ventilated place. Keep cool.
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.
All components of this product are listed on the Canadian Domestic Substances List (DSL).
SARA Section 313 (specific toxic chemical listings)
75-76-3 Tetramethylsilane
California Proposition 65
Prop 65 - Chemicals known to cause cancer
Substance is not listed.
Prop 65 - Developmental toxicity
Substance is not listed.
Prop 65 - Developmental toxicity, female
Substance is not listed.
Prop 65 - Developmental toxicity, male
Substance is not listed.
Information about limitation of use:
For use only by technically qualified individuals.
This product is subject to the reporting requirements of section 313 of the Emergency Planning and Community Right to Know Act of 1986 and 40CFR372.
Other regulations, limitations and prohibitive regulations
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006.
Substance is not 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.
Substance is not listed.
Annex XIV of the REACH Regulations (requiring Authorisation for use)
Substance is not 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.