


Copper(I)/(II) Hexafluoro-2,4-Pentanedionate-Vinyltrimethylsilane Complex		Pricing >
Linear Formula	$C_6H_{10}Si_2C_2HCuF_6O_2$	
Pubchem CID	131637521	
MDL Number	MFCD00270929	
EC No.	N/A	
IUPAC Name	copper; ethyl(trimethyl)silane; (Z)-1,1,1,5,5,5-hexafluoro-4-hydroxypent-3-en-2-one	
SMILES	<chem>C[Si](C)(C)[CH](CH2).C(=C(C(F)(F)F)O)C(=O)C(F)(F)F.[Cu]</chem>	
Inchi Identifier	InChI=1S/C5H2F6O2.C5H12Si.Cu/c6-4(7,8)2(12)1-3(13)5(9,10)11;1-5-6(2,3)4;/h1,12H;5H,1H2,2-4H3;/b2-1-;	
Inchi Key	RGEDGAVTKUVOQZ-UAIGNFCESA-N	
Signal Word	Warning	
Hazard Statements	H227-H302-H315-H319	
Hazard Codes	Xi	
Precautionary Statements	P210-P264-P270-P280-P301+P312-P302+P352-P305+P351+P338-P321-P330-P332+P313-P337+P313-P362+P364-P370+P378-P403+P235-P501	
Flash Point	72 °C	
Risk Codes	N/A	
Safety Statements	N/A	
Transport Information	UN1993 3/PG III	
GHS Pictograms	GHS07 Exclamation Point 	

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SAFETY DATA SHEET

Date Accessed: 04/30/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #139566-53-3

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

GHS-US classification

Flammable liquids Category 4 H227 Combustible liquid
Acute toxicity (oral) Category 4 H302 Harmful if swallowed
Skin corrosion/irritation Category 2 H315 Causes skin irritation
Serious eye damage/eye irritation Category 2A H319 Causes serious eye irritation



Signal word (GHS US) : Warning
Hazard statements (GHS US) :
H227 - Combustible liquid
H302 - Harmful if swallowed
H315 - Causes skin irritation
H319 - Causes serious eye irritation
Precautionary statements (GHS US) :
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P210 - Keep away from heat, open flames, sparks. - No smoking.
P264 - Wash hands thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P330 - Rinse mouth.
P301+P312 - If swallowed: Call a doctor if you feel unwell
P302+P352 - If on skin: Wash with plenty of water
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P337+P313 - If eye irritation persists: Get medical advice/attention.
P321 - Specific treatment (see first aid instructions on this label)
P362+P364 - Take off contaminated clothing and wash it before reuse.
P370+P378 - In case of fire: Use water spray, foam, carbon dioxide, dry chemical to extinguish.
P403+P235 - Keep in a cool place
P501 - Dispose of contents/container to licensed waste disposal facility.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Copper(I)/(II) hexafluoro-2,4-pentanedionatevinyltrimethylsilane complex
CAS #: 139566-53-3

GHS-US classification:
Flam. Liq. 4, H227
Acute Tox. 4 (Oral), H302
Skin Irrit. 2, H315
Eye Irrit. 2A, H319

SECTION 4. FIRST AID MEASURES

Description of First Aid Measures

General Advice:

Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). If possible show this sheet; if not available show packaging or label. IF exposed or concerned: Get medical advice/attention.

Inhalation:

Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

Skin Contact:

Wash with plenty of soap and water. Get medical advice/attention.

Eye Contact:

Immediately flush eyes thoroughly with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

Ingestion:

Never give anything by mouth to an unconscious person. Get medical advice/attention.

Most important symptoms and effects (acute and delayed)

Inhalation:

May cause irritation to the respiratory tract.

Skin Contact:

Causes skin irritation. Decomposition products are potentially sensitizing.

Eye Contact:

Causes serious eye irritation.

Ingestion:

Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:

Water spray. Foam. Carbon dioxide. Dry chemical.

Unsuitable extinguishing media:

Water.

Fire hazard:

Combustible liquid. Irritating fumes and organic acid vapors may develop when material is exposed to elevated temperatures or open flame.

Firefighting instructions:

Use water spray to cool exposed surfaces. Exercise caution when fighting any chemical fire.

Protection during firefighting:

Do not enter fire area without proper protective equipment, including respiratory protection. Wear pressure demand self-contained breathing apparatus with full facepiece and full protective clothing. Avoid all eye and skin contact and do not breathe vapor and mist.

SECTION 6. ACCIDENTAL RELEASE MEASURES

General measures:

Remove ignition sources. Use special care to avoid static electric charges.

Protective equipment :

Wear protective equipment as described in Section 8.

Emergency procedures :

Evacuate unnecessary personnel.

Protective equipment:

Equip cleanup crew with proper protection. Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

Environmental Precautions:

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters.

For containment:

Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

Methods for cleaning up:

Clean up any spills as soon as possible, using an absorbent material to collect it. Sweep or shovel spills into appropriate container for disposal. Use only non-sparking tools.

SECTION 7. HANDLING AND STORAGE

Additional hazards when processed:

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

Precautions for safe handling:

Avoid all eye and skin contact and do not breathe vapor and mist. Use only non-sparking tools.

Ground/bond container and receiving equipment.

Hygiene measures:

Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

Storage conditions:

Keep container tightly closed. Keep in a cool place.

Incompatible materials:

Water.

Storage area:

Store in a well-ventilated place. Store away from heat.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Appropriate engineering controls:

Provide local exhaust or general room ventilation.

Personal protective equipment:

Avoid all unnecessary exposure. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Hand protection:

Neoprene or nitrile rubber gloves

Eye protection:

Chemical goggles. Contact lenses should not be worn

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified dust and mist (orange cartridge) respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state : Liquid

Appearance : Liquid.

Molecular mass : 370.84 g/mol

Color : Green.

Odor : No data available

Odor threshold : No data available

Refractive index : No data available

pH : No data available

Relative evaporation rate (butyl acetate=1) : No data available

Melting point : -5 °C

Freezing point : No data available

Boiling point : 50 °C @ 50 mm Hg

Flash point : 72 °C

Auto-ignition temperature : 340 °C
Decomposition temperature : No data available
Flammability (solid, gas) : Combustible liquid
Vapor pressure : No data available
Relative vapor density at 20 °C : > 1
Relative density : 1.49
Solubility : Insoluble in water. Reacts with water.
Log Pow : No data available
Log Kow : No data available
Viscosity, kinematic : No data available
Viscosity, dynamic : No data available
Explosive properties : No data available
Oxidizing properties : No data available
Explosion limits : ≥ 0.3 vol % (lower)

SECTION 10. STABILITY AND REACTIVITY

Chemical stability:
Stable below 25°C. Slowly decomposes at elevated temperature.
Possibility of hazardous reactions:
Material decomposes slowly in contact with air by reaction with water.
Conditions to avoid:
Heat. Open flame. Sparks.
Incompatible materials:
Water
Hazardous decomposition products
Copper oxide fumes. Fluorinated organic vapors.
Organic acids.

SECTION 11. TOXICOLOGICAL INFORMATION

ATE US (oral) 622.222 mg/kg body weight
LD50 oral rat 560 mg/kg
ATE US (oral) 560 mg/kg body weight
Skin corrosion/irritation : Causes skin irritation.
Serious eye damage/irritation : Causes serious eye irritation.
Respiratory or skin sensitization : Not classified
Germ cell mutagenicity : Not classified
Carcinogenicity : Not classified
Reproductive toxicity : Not classified
Specific target organ toxicity – single exposure : Not classified
Specific target organ toxicity – repeated exposure:
Not classified
Aspiration hazard : Not classified
Symptoms/effects after inhalation : May cause irritation to the respiratory tract.

Symptoms/effects after skin contact : Causes skin irritation. Decomposition products are potentially sensitizing.
Symptoms/effects after eye contact : Causes serious eye irritation.
Symptoms/effects after ingestion : Harmful if swallowed. Swallowing a small quantity of this material will result in serious health hazard.
Reason for classification : Expert judgment

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:
No additional information available
Persistence and degradability:
No additional information available
Bioaccumulative potential:
No additional information available
Mobility in soil:
No additional information available
Other adverse effects
Other adverse effects : This substance may be hazardous to the environment.
Effect on the ozone layer : No additional information available

SECTION 13. DISPOSAL CONSIDERATIONS

Sewage disposal recommendations:
Do not dispose of waste into sewer.
Product/Packaging disposal recommendations:
Dispose in a safe manner in accordance with local/national regulations. Dispose of contents/container to licensed waste disposal facility.
Ecology - waste materials:
Avoid release to the environment.

SECTION 14. TRANSPORT INFORMATION

DOT NA no.:
NA1993
Transport document description : NA1993
Combustible liquid, n.o.s. (COPPER(I)/(II) HEXAFLUORO-2,4-PENTANEDIONATEVINYLTRIMETHYLSILANE COMPLEX), 3, III
Proper Shipping Name (DOT) : Combustible liquid, n.o.s.
(COPPER(I)/(II) HEXAFLUORO-2,4-

PENTANEDIONATE-VINYLTRIMETHYLSILANE
COMPLEX)

Class (DOT) : 3 - Class 3 - Flammable and
combustible liquid 49 CFR 173.120

Packing group (DOT) : III - Minor Danger

DOT Packaging Non Bulk (49 CFR 173.xxx) : 203

DOT Packaging Bulk (49 CFR 173.xxx) : 241

DOT Packaging Exceptions (49 CFR 173.xxx) : 150

DOT Symbols : D - Proper shipping name for
domestic use only, or to and from Canada, G -

Identifies PSN

requiring a technical name

DOT Quantity Limitations Passenger aircraft/rail (49
CFR 173.27) : 60 L

DOT Quantity Limitations Cargo aircraft only (49 CFR
175.75)

SECTION 15. REGULATORY INFORMATION

TSCA Exemption/Exclusion CAUTION:

This material is supplied for research and
development purposes subject to the R&D exemption
under TSCA, 40 CFR 720.36, and must meet the
requirements of the exemption, including supervision
by a "technically qualified individual" as defined by 40
CFR 720.3(ee). The use
of this material for "commercial purposes" as defined
by 40 CFR 720.3(r) is not permitted in the United
States.

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
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