





[Trimethylantimony](#)

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| | |
|------------------------------|------------------------------------|
| Linear Formula | (CH ₃) ₃ Sb |
| Pubchem CID | 11656 |
| MDL Number | MFCD00014847 |
| EC No. | 209-824-7 |
| IUPAC Name | trimethylstibane |
| Beilstein/Reaxys No. | N/A |
| SMILES | [Sb](C)(C)C |
| Inchl Identifier | InChI=1S/3CH3.Sb/h3*1H3; |
| Inchl Key | PORFVJURJXKREL-UHFFFAOYSA-N |
| Signal Word | Danger |
| Hazard Statements | N/A |
| Hazard Codes | F, Xi, Xn, C |
| Risk Codes | N/A |
| Safety Statements | N/A |
| RTECS Number | WJ1225000 |
| Transport Information | UN 3394 4.2/PG 1 |
| WGK Germany | 3 |

| | |
|----------------|---|
| GHS Pictograms | <u>GHS02 Flame</u> |
| |  |
| | <u>GHS05 Corrosive</u> |
| |  |
| | <u>GHS07 Exclamation Point</u> |
| |  |
| | <u>GHS09 Environment</u> |
| |  |

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SAFETY DATA SHEET

Date Accessed: 05/04/2024

Date Revised: 01/15/2022

SECTION 1. IDENTIFICATION

Product Identifiers: All applicable American Elements product codes for CAS #594-10-5

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

Hazard classification
This material is hazardous under the criteria of the

Federal OSHA Hazard Communication Standard
29CFR 1910.1200.
Flammable liquids-Category 2
Pyrophoric liquids-Category 1
Acute toxicity-Category 4-Oral
Acute toxicity-Category 4-Inhalation
Skin corrosion-Category 1A
Serious eye damage-Category 1
Chronic aquatic toxicity-Category 2
Label elements
Hazard pictograms



Signal word: DANGER!

Hazards

Highly flammable liquid and Vapor.

Catches fire spontaneously if exposed to air.

Harmful if swallowed or if inhaled

Causes severe skin burns and eye damage.

Causes serious eye damage.

Toxic to aquatic life with long lasting effects.

Precautionary statements

Prevention

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

Do not allow contact with air.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ ventilating/ lighting/ equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Avoid breathing dust/ fume/ gas/ mist/ Vapors/ spray.

Wash skin thoroughly after handling.

Do not eat, drink or smoke when using this product.

Use only outdoors or in a well-ventilated area.

Avoid release to the environment.

Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response

IF SWALLOWED: Call a POI

SON CENTER or doctor/ physician if you feel unwell.

Rinse mouth.

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

IF ON SKIN: Immerse in cool water/ wrap in wet bandages.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER or doctor/ physician.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Wash contaminated clothing before reuse.

In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

Collect spillage.

Storage

Store in a well-ventilated place. Keep cool.

Store locked up.

Store contents under inert gas.

Disposal

Dispose of contents/ container to an approved waste disposal plant.

Other hazards

Water Reactive

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Synonyms: antimony compounds

This product is a substance.

Stibine, trimethyl-

Cas number:

594-10-5

Concentration:

90.0-100.0%

SECTION 4. FIRST AID MEASURES

Description of first aid measures

Inhalation:

Remove from exposure.

If there is difficulty in breathing, give oxygen.

Immediate medical attention is required.

Skin contact:

Immediately flush the skin with large quantities of water, preferably under a shower.

If skin contact occurs, remove contaminated clothing and wash skin thoroughly.

Continue washing for at least 20 minutes.

Contaminated clothing should be washed or dry-cleaned before re-use.

Immediate medical attention is required.

Eye contact:

Immediately flush the eye with plenty of water for at least 20 minutes, holding the eye open.

Immediate medical attention is required.

Ingestion:

Do NOT induce vomiting.
Wash out mouth with water.
Have victim drink 1-3 glasses of water to dilute stomach contents.
Immediate medical attention is required.
Never administer anything by mouth if a victim is losing consciousness, is unconscious or is convulsing.
Most important symptoms and effects, both acute and delayed:
Aside from the information found under Description of first aid measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.
Indication of any immediate medical attention and special treatment needed
Notes to physician:
Treat symptomatically.
Treat skin burns conventionally.

SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media:
Pyrophoric! Do not use wet chemical, water or foam.
Use dry chemical powder followed by sand or dolomite (powdered limestone).
Unsuitable extinguishing media:
no data available
Special hazards arising from the substance or mixture
Hazardous combustion products:
no data available
Unusual Fire and Explosion Hazards:
Pyrophoric! Can ignite spontaneously when exposed to air at normal or slightly elevated temperatures.
Smoke may contain various hydrocarbons and hazardous metallic oxides.
Advice for firefighters
Fire Fighting Procedures:
Keep people away. Isolate fire and deny unnecessary entry.
Reacts violently with water resulting in flammable vapor and metal oxide(s). Be aware of reignition.
Special protective equipment for fire fighters:
Wear full protective clothing and self-contained breathing apparatus.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and

emergency procedures:

Wear suitable protective clothing.

Environmental precautions:

Prevent the material from entering drains or water courses.

Advise Authorities if spillage has entered watercourse or sewer or has contaminated soil or vegetation.

Methods and materials for containment and cleaning up:

Cover with dry sand or dolomite and allow to decompose or burn out completely.

Transfer into suitable containers for recovery or disposal.

Use non-sparking tools and/or explosion-proof equipment.

Eliminate all ignition sources.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Use local exhaust ventilation.

Avoid contact with eyes, skin and clothing.

Keep container tightly closed.

Eliminate all possible sources of ignition. Wear flame-proof clothing. Handle in glovebox/bag under inert atmosphere only.

Conditions for safe storage:

Store in original container.

Keep away from heat and sources of ignition.

Storage area should be: cool dry well ventilated out of direct sunlight

Practice good personal hygiene to prevent accidental exposure.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure controls

Engineering controls:

Engineering methods to prevent or control exposure are preferred. Methods

include process or personnel enclosure, mechanical ventilation (local exhaust), and control of process conditions.

Use glove box or bag in a closed system under inert atmosphere, in conjunction with adequate ventilation.

Individual protection measures

Eye/face protection:

Chemical goggles and face shield.

Skin protection

Hand protection:
Leather-palmed, heat-resistant gloves
Other protection:
N/A
Respiratory protection:
The specific respirator selected must be based on the airborne concentration found in the workplace and must not exceed the working limits of the respirator.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance
Physical state: liquid
Color: colourless
Odor: Odorless
Odor Threshold: no data available
pH: N/A
Melting point/range: no data available
Freezing point: no data available
Boiling point: (760 mmHg)80 °C(176 °F)
Flash point: Pyrophoric
Evaporation Rate (Butyl Acetate = 1): no data available
Flammability (solid, gas): Not Applicable
Lower explosion limit: no data available
Upper explosion limit: no data available
Vapor Pressure: 104 mmHg at 25 °C(77 °F)
Relative Vapor Density (air = 1): no data available
Relative Density (water = 1): 1.528
Water solubility: Reacts with water.
Partition coefficient: n-octanol/water: no data available
Auto-ignition temperature: no data available
Decomposition temperature: no data available
Kinematic Viscosity: no data available
Explosive properties: no data available
Oxidizing properties: no data available
Molecular weight: no data available
NOTE: The physical data presented above are typical values and should not be construed as a specification.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:
no data available
Chemical stability:
Stable under normal conditions.
Possibility of hazardous reactions:
No dangerous reaction known under conditions of normal use.

Product will not undergo hazardous polymerization.
Conditions to avoid:
Exposure to air.
Exposure to sunlight.
Exposure to moisture
Heat, flames and sparks.
Incompatible materials:
Water
Oxidizers
Acids
Acid chlorides
Halogenated hydrocarbons
Hazardous decomposition products:
Metal oxides
Carbon monoxide
carbon dioxide
acid smoke and irritating fumes
flammable gases

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicological information on this product or its components appear in this section when such data is available.

Acute toxicity

Acute oral toxicity

Product test data not available.

Acute dermal toxicity

Product test data not available.

Acute inhalation toxicity

Product test data not available.

Skin corrosion/irritation

Product test data not available.

Serious eye damage/eye irritation

Product test data not available.

Sensitization

Product test data not available.

Specific Target Organ Systemic Toxicity (Single Exposure)

Product test data not available.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

Product test data not available.

Carcinogenicity

Not considered carcinogenic by NTP, IARC, and OSHA

Teratogenicity

Product test data not available.

Reproductive toxicity

Product test data not available.

Mutagenicity

Product test data not available.

Aspiration Hazard

Product test data not available.

COMPONENTS INFLUENCING TOXICOLOGY:

Stibine, trimethyl-Acute oral toxicity

Single dose oral LD50 has not been determined.

Acute dermal toxicity

The dermal LD50 has not been determined.

Acute inhalation toxicity

The LC50 has not been determined.

Skin corrosion/irritation

Brief contact may cause skin burns. Symptoms may include pain, severe local redness and tissue damage.

Serious eye damage/eye irritation

May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness.

Chemical burns may occur.

Sensitization

For skin sensitization:

No relevant data found.

For respiratory sensitization:

No relevant data found.

Specific Target Organ Systemic Toxicity (Single Exposure)

Available data are inadequate to determine single exposure specific target organ toxicity.

Specific Target Organ Systemic Toxicity (Repeated Exposure)

No relevant data found.

Teratogenicity

No relevant data found.

Reproductive toxicity

No relevant data found.

Mutagenicity

No relevant data found.

Aspiration Hazard

Based on available information, aspiration hazard could not be determined.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicological information on this product or its components appear in this section when such data is available.

Toxicity

Stibine, trimethyl-Acute toxicity to fish

No relevant data found.

Persistence and degradability

Stibine, trimethyl-Biodegradability:

No relevant data found.

Bioaccumulative potential

Stibine, trimethyl-Bioaccumulation:

No relevant data found.
Mobility in soil
Stibine, trimethyl-
No relevant data found.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods:
Dispose in accordance with all local, state (provincial),
and federal regulations.
Under RCRA, it is the responsibility of the product's
user to determine at the time of disposal, whether the
product meets RCRA criteria for hazardous waste.
This is because the product uses, transformations,
mixtures, processes, etc. may render the resulting
materials hazardous.
Treatment and disposal methods of used packaging:
Empty containers retain product residues.
Follow label warnings even after container is emptied.
Improper disposal or reuse of this container
may be dangerous and illegal. Refer to applicable
federal, state and local regulations.

SECTION 14. TRANSPORT INFORMATION

DOT
Proper shipping name
Organometallic substance, liquid, pyrophoric, water-
reactive(Trimethylantimony)
UN number
UN 3394
Class
4.2(4.3)
Packing group
I
Marine pollutant
Trimethylantimony
Classification for SEA transport (IMO-IMDG):
Proper shipping name
ORGANOMETALLIC SUBSTANCE, LIQUID,
PYROPHORIC, WATER-
REACTIVE(Trimethylantimony)
UN number
UN 3394
Class
4.2(4.3)
Packing group
I
Marine pollutant
Trimethylantimony

Transport in bulk according to Annex I or II of MARPOL 73/78 and the IBC or IGC Code
Consult IMO regulations before transporting ocean bulk
Classification for AIR transport (IATA/ICAO):
Transport forbidden by regulation
This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

SECTION 15. REGULATORY INFORMATION

OSHA Hazard Communication Standard
This product is considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200).
Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312
Immediate, delayed, flammability, reactive hazard
Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313
This product contains a chemical which is listed in Section 313 at or above de minimis concentrations.
Components
CASRN
Antimony Compound
California (Proposition 65)
This product does not contain materials which the State of California has found to cause cancer, birth defects or other reproductive harm.
United States TSCA Inventory(TSCA)
All components of this product are in compliance with the inventory listing requirements of the U.S. Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

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.
