

Printing date 07/17/2021

Reviewed on 07/17/2021

## 1 Identification

- **Product name**
- **Trade name:** Tris(dimethylamino)arsine, 99%
- **Item number:** 33-5000
- **CAS Number:**  
6596-96-9
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Strem Chemicals, Inc.  
7 Mulliken Way  
NEWBURYPORT, MA 01950  
USA  
info@strem.com
- **Information department:** Technical Department
- **Emergency telephone number:**  
EMERGENCY: CHEMTREC: + 1 (800) 424-9300  
During normal opening times: +1 (978) 499-1600

## 2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H310 Fatal in contact with skin.

Acute Tox. 2 H330 Fatal if inhaled.



GHS08 Health hazard

Muta. 1A H340 May cause genetic defects.

Carc. 1A H350 May cause cancer.

- **Label elements**
- **GHS label elements**  
The substance is classified and labeled according to the Globally Harmonized System (GHS).
- **Hazard pictograms**



GHS06 GHS08

- **Signal word** *Danger*
- **Hazard-determining components of labeling:**  
*Tris(dimethylamino)arsine, 99%*
- **Hazard statements**  
H300+H310+H330 *Fatal if swallowed, in contact with skin or if inhaled.*  
H340 *May cause genetic defects.*  
H350 *May cause cancer.*

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**Precautionary statements**

- P231 Handle under inert gas.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- 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.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P422 Store contents under inert gas.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**Classification system:**

**NFPA ratings (scale 0 - 4)**



Health = 4  
Fire = 0  
Reactivity = 0

The substance demonstrates unusual reactivity with water.

**HMIS-ratings (scale 0 - 4)**



Health = 4  
Fire = 0  
Reactivity = 0

**Other hazards**

**Results of PBT and vPvB assessment**

- PBT:** Not applicable.
- vPvB:** Not applicable.

**3 Composition/information on ingredients**

**Chemical characterization: Substances**

**CAS No. Description**

6596-96-9 Tris(dimethylamino)arsine, 99%

**4 First-aid measures**

**Description of first aid measures**

**General information:**

Immediately remove any clothing soiled by the product.  
Remove breathing apparatus only after contaminated clothing have been completely removed.  
In case of irregular breathing or respiratory arrest provide artificial respiration.

**After inhalation:**

Supply fresh air or oxygen; call for doctor.  
In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

**After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

**After swallowing:** Do not induce vomiting; immediately call for medical help.

**Information for doctor:**

**Most important symptoms and effects, both acute and delayed** No further relevant information available.

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

**5 Fire-fighting measures**

- **Extinguishing media**
- **Suitable extinguishing agents:**  
Sand. Do not use water.  
CO2, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water
- **Special hazards arising from the substance or mixture**  
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

**6 Accidental release measures**

- **Personal precautions, protective equipment and emergency procedures** Mount respiratory protective device.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.
- **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose contaminated material as waste according to item 13.  
Ensure adequate ventilation.  
Do not flush with water or aqueous cleansing agents
- **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.
- **Protective Action Criteria for Chemicals**

· **PAC-1:**

Substance is not listed.

· **PAC-2:**

Substance is not listed.

· **PAC-3:**

Substance is not listed.

**7 Handling and storage**

- **Handling:** Handle under inert gas.
- **Precautions for safe handling**  
Ensure good ventilation/exhaustion at the workplace.  
Open and handle receptacle with care.  
Only handle and refill product in closed systems.  
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:** Store contents under inert gas.

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- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:**  
Keep receptacle tightly sealed.  
Store in cool, dry conditions in well sealed receptacles.
- **Specific end use(s)** No further relevant information available.

**8 Exposure controls/personal protection**

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:** Not required.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**  
Keep away from foodstuffs, beverages and feed.  
Immediately remove all soiled and contaminated clothing.  
Wash hands before breaks and at the end of work.  
Store protective clothing separately.
- **Breathing equipment:** A NIOSH approved respirator in accordance with 29 CFR 1910.134.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer.
- **Penetration time of glove material**  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

**9 Physical and chemical properties**

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**  

<b>Form:</b>	Liquid
<b>Color:</b>	Colorless

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· <b>Odor:</b>	Amine-like
· <b>Odor threshold:</b>	Not determined.
· <b>pH-value:</b>	Not determined.
· <b>Change in condition</b>	
<b>Melting point/Melting range:</b>	Undetermined.
<b>Boiling point/Boiling range:</b>	55 °C (131 °F)
· <b>Flash point:</b>	56 °C (133 °F)
· <b>Flammability (solid, gaseous):</b>	Not determined.
· <b>Ignition temperature:</b>	
<b>Decomposition temperature:</b>	Not determined.
· <b>Auto igniting:</b>	Not determined.
· <b>Danger of explosion:</b>	Product does not present an explosion hazard.
· <b>Explosion limits:</b>	
<b>Lower:</b>	Not determined.
<b>Upper:</b>	Not determined.
· <b>Vapor pressure:</b>	Not determined.
· <b>Density at 20 °C (68 °F):</b>	1.1248 g/cm <sup>3</sup> (9.38646 lbs/gal)
· <b>Relative density</b>	Not determined.
· <b>Vapor density</b>	Not determined.
· <b>Evaporation rate</b>	Not determined.
· <b>Solubility in / Miscibility with</b>	
<b>Water:</b>	Not miscible or difficult to mix.
· <b>Partition coefficient (n-octanol/water):</b>	Not determined.
· <b>Viscosity:</b>	
<b>Dynamic:</b>	Not determined.
<b>Kinematic:</b>	Not determined.
· <b>Solvent content:</b>	
<b>Organic solvents:</b>	0.0 %
<b>VOC content:</b>	0.0 g/l / 0.00 lb/gl
· <b>Other information</b>	No further relevant information available.

**10 Stability and reactivity**

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

US

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**11 Toxicological information**

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

Dermal	LD50	15 mg/kg (mouse)
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· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

Substance is not listed.

· **NTP (National Toxicology Program)**

Substance is not listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

Substance is not listed.

**12 Ecological information**

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

· **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

· **Bioaccumulative potential:** No further relevant information available.

· **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:** Not known to be hazardous to water.

· **Results of PBT and vPvB assessment**

· **PBT:** Not applicable.

· **vPvB:** Not applicable.

· **Other adverse effects:** No further relevant information available.

**13 Disposal considerations**

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

· **Recommendation:** Disposal must be made according to official regulations.

**14 Transport information**

· **UN-Number**

· **DOT, IMDG, IATA**

UN1556

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· **UN proper shipping name**  
· **DOT** *Arsenic compounds, liquid, n.o.s.*  
· **IMDG, IATA** *ARSENIC COMPOUND, LIQUID, N.O.S.*

· **Transport hazard class(es)**

· **DOT**



· **Class** *6.1 Toxic substances*  
· **Label** *6.1*

· **IMDG**



· **Class** *6*  
· **Label** *6.1*

· **IATA**



· **Class** *6.1 Toxic substances*  
· **Label** *6.1*

· **Packing group**  
· **DOT, IMDG, IATA** *II*

· **Environmental hazards:**  
· **Marine pollutant:** *No*

· **Special precautions for user** *Not applicable.*  
· **EMS Number:** *F-A,S-A*  
· **Stowage Category** *B*  
· **Stowage Code** *SW2 Clear of living quarters.*  
· **Segregation Code** *SG70 For arsenic sulphides, "separated from" acids*

· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** *Not applicable.*

· **Transport/Additional information:**

· **DOT**  
· **Quantity limitations** *On passenger aircraft/rail: 5 L*  
*On cargo aircraft only: 60 L*

· **IMDG**

· **Limited quantities (LQ)** *.1L*  
· **Excepted quantities (EQ)** *Code: E4*  
*Maximum net quantity per inner packaging: 1 ml*  
*Maximum net quantity per outer packaging: 500 ml*

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· **UN "Model Regulation":** *UN 1556 ARSENIC COMPOUNDS, LIQUID, N.O.S., 6.1, II*

**15 Regulatory information**

- *Safety, health and environmental regulations/legislation specific for the substance or mixture*
- *Sara*

- **Section 355 (extremely hazardous substances):**

*Substance is not listed.*

- **Section 313 (Specific toxic chemical listings):**

*Substance is not listed.*

- **TSCA (Toxic Substances Control Act):**

*Substance is not listed.*

- **Proposition 65**

- **Chemicals known to cause cancer:**

*Substance is not listed.*

- **Chemicals known to cause reproductive toxicity for females:**

*Substance is not listed.*

- **Chemicals known to cause reproductive toxicity for males:**

*Substance is not listed.*

- **Chemicals known to cause developmental toxicity:**

*Substance is not listed.*

- **Carcinogenic categories**

- **EPA (Environmental Protection Agency)**

*Substance is not listed.*

- **TLV (Threshold Limit Value established by ACGIH)**

*Substance is not listed.*

- **NIOSH-Ca (National Institute for Occupational Safety and Health)**

*Substance is not listed.*

- **GHS label elements**

*The substance is classified and labeled according to the Globally Harmonized System (GHS).*

- **Hazard pictograms**



GHS06 GHS08

- **Signal word** *Danger*

- **Hazard-determining components of labeling:**

*Tris(dimethylamino)arsine, 99%*

- **Hazard statements**

*H300+H310+H330 Fatal if swallowed, in contact with skin or if inhaled.*

*H340 May cause genetic defects.*

*H350 May cause cancer.*

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**· Precautionary statements**

- P231 Handle under inert gas.
- P284 [In case of inadequate ventilation] wear respiratory protection.
- P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- 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.
- P403+P233 Store in a well-ventilated place. Keep container tightly closed.
- P422 Store contents under inert gas.
- P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

**· National regulations:**

**· Additional classification according to Decree on Hazardous Materials:**

- Carcinogenic hazardous material group I (extremely dangerous).
- Carcinogenic hazardous material group II (very dangerous).
- Carcinogenic hazardous material group III (dangerous).

**· Information about limitation of use:**

Workers are not allowed to be exposed to this hazardous material. Exceptions can be made by the authorities in certain cases.

**· Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

**16 Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Department issuing SDS:** Technical Department.

**· Contact:** Technical Director

**· Date of preparation / last revision** 07/17/2021 / -

**· Abbreviations and acronyms:**

- ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
- IMDG: International Maritime Code for Dangerous Goods
- DOT: US Department of Transportation
- IATA: International Air Transport Association
- ACGIH: American Conference of Governmental Industrial Hygienists
- CAS: Chemical Abstracts Service (division of the American Chemical Society)
- NFPA: National Fire Protection Association (USA)
- HMIS: Hazardous Materials Identification System (USA)
- VOC: Volatile Organic Compounds (USA, EU)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- NIOSH: National Institute for Occupational Safety
- OSHA: Occupational Safety & Health
- TLV: Threshold Limit Value
- PEL: Permissible Exposure Limit
- REL: Recommended Exposure Limit
- Acute Tox. 2: Acute toxicity – Category 2
- Muta. 1A: Germ cell mutagenicity – Category 1A
- Carc. 1A: Carcinogenicity – Category 1A