

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (5N) 99.999% Trimethylarsine

**Product Code:** TME-ARSIN-05

**CAS Number:** 593-88-4

**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:  
+1 800-424-9300

## SECTION 2. HAZARDS IDENTIFICATION

Classification of the substance or mixture

GHS02 Flame

Flam. Liq. 3 H226 Flammable liquid and vapor.

GHS06 Skull and crossbones

Acute Tox. 3 H301 Toxic if swallowed.

Acute Tox. 3 H311 Toxic in contact with skin.

Acute Tox. 3 H331 Toxic 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



GHS02 GHS06 GHS08

Signal word: Danger

Hazard-determining components of labeling: Trimethylarsine, 99%



#### Hazard statements

H226 Flammable liquid and vapor.

H301+H311+H331 Toxic if swallowed, in contact with skin or if inhaled.

H340 May cause genetic defects.

H350 May cause cancer.

#### Precautionary statements

P101 If medical advice is needed, have product container or label at hand.

P102 Keep out of reach of children.

P103 Read label before use.

P231 Handle under inert gas.

P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.

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 = 2

Fire = 2

Reactivity = 0

HMIS-ratings (scale 0 - 4)

Health = \*2

Fire = 2

Reactivity = 0

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 # / Substance Name: 593-88-4 Trimethylarsine, 99%

Identification number(s)

EC number: 209-815-8

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## SECTION 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.

If inhaled:

Supply fresh air or oxygen; call for doctor.

In case of unconsciousness place patient stably in side position for transportation.

In case of skin contact:

Immediately wash with soap and water; rinse thoroughly.

In case of eye contact:

Rinse opened eye for several minutes under running water. Consult a physician.



If swallowed:

Do not induce vomiting; immediately call for medical help.

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

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing agents:

CO<sub>2</sub>, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

For safety reasons unsuitable extinguishing agents: Water with full jet

Special hazards arising from the substance or mixture

No data available

Advice for firefighters

Protective equipment:

Mouth respiratory protective device.

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## **SECTION 6. ACCIDENTAL RELEASE MEASURES**

Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Keep unprotected persons away.

Environmental precautions:

Inform respective authorities in case of seepage into water courses, or sewage systems.

Methods and materials for containment and cleanup:

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

Dispose contaminated material as waste according to item 13.

Ensure adequate ventilation.

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.

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## **SECTION 7. HANDLING AND STORAGE**

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Handling:

Handle under inert gas.

Information about protection against explosions and fires:

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Storage: Keep cool.

Store contents under inert gas.

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.  
Recommended storage temperature: Store at temperatures not exceeding 4 °C.  
Specific end use(s)  
No data available

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## **SECTION 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.

Avoid contact with the eyes and skin.

Breathing equipment:

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure userespiratory protective device that is independent of circulating air.

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 by 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

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## **SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES**

Information on basic physical and chemical properties

Appearance:

Form: Liquid

Color: Colorless

Odor: Pungent

Odor threshold: Not determined.

pH: Not determined.

Melting point/Melting range: -87.3 °C (-125 °F)

Boiling point/Boiling range: 51 °C (124 °F)



Flash point: 38 °C (100 °F)  
Flammability (solid, gas): N/A  
Ignition temperature:  
Decomposition temperature: Not determined.  
Autoignition: Not determined.  
Danger of explosion:  
Product is not explosive. However, formation of explosive air/vapor mixtures are possible.  
Explosion limits:  
Lower: Not determined.  
Upper: Not determined.  
Vapor pressure: 320mm (25 hPa (240mm (19 mm Hg)  
Density at 20 °C (68 °F): 1.124 g/cm<sup>3</sup> (9.38 lbs/gal)  
Relative density: Not determined.  
Vapor density: Not determined.  
Evaporation rate: Not determined.  
Solubility in Water (H<sub>2</sub>O): Not miscible or difficult to mix.  
Partition coefficient (n-octanol/water): Not determined.  
Viscosity:  
Dynamic: Not determined.  
Kinematic: Not determined.  
Organic solvents: 0.0 %  
Other information  
No data available

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## **SECTION 10. STABILITY AND REACTIVITY**

Reactivity  
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 data available  
Incompatible materials:  
No data available  
Hazardous decomposition products:  
No dangerous decomposition products known.

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
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.

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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  
Ecotoxicological effects:  
Remark: Very toxic for fish  
Additional ecological information:  
General notes:  
Also poisonous for fish and plankton in water bodies.  
Very toxic for aquatic organisms  
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:  
Must not be disposed of together with household garbage. Do not allow product to enter drains, sewage systems, or other water courses.  
Uncleaned packagings:  
Recommendation:  
Disposal must be made according to official regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

UN-Number  
DOT, IMDG, IATA  
UN1992  
UN proper shipping name  
DOT  
Flammable liquids, toxic, n.o.s.  
IMDG, IATA  
FLAMMABLE LIQUID, TOXIC, N.O.S.  
Transport hazard class(es)  
DOT



Class  
3 Flammable liquids  
Label  
3+6.1  
IMDG, IATA  
Class  
3 Flammable liquids  
Label  
3+6.1  
Packing group  
DOT, IMDG, IATA  
III  
Environmental hazards:  
Marine pollutant: No  
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  
Quantity limitations  
On passenger aircraft/rail: 60 L  
On cargo aircraft only: 220 L  
IMDG  
Limited quantities (LQ)  
5L  
Excepted quantities (EQ)  
Code: E1  
Maximum net quantity per inner packaging: 30 ml  
Maximum net quantity per outer packaging: 1000 ml  
UN "Model Regulation":  
UN1992, Flammable liquids, toxic, n.o.s., 3 (6.1), III

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## SECTION 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 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).

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## 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.