

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Identifier:** (4N) 99.99% Thallium Acetate Solution

**Product Code:** TL-AC-04-SOL

**CAS Number:** 563-68-8

**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 in accordance with 29 CFR 1910 (OSHA HCS)

GHS06 Skull and crossbones

Acute Tox. 2 H300 Fatal if swallowed.

Acute Tox. 2 H330 Fatal if inhaled.

GHS08 Health hazard

STOT RE 2 H373 May cause damage to organs through prolonged or repeated exposure.

Hazards not otherwise classified

No data available.

GHS label elements

The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms



GHS06

GHS08

Signal word

Danger

Hazard statements

H300+H330 Fatal if swallowed or if inhaled.

H373

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

P284

[In case of inadequate ventilation] wear respiratory protection.

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

P320

Specific treatment is urgent (see on this label).

P405

Store locked up.

P501

Dispose of contents/container in accordance with local/regional/national/international regulations.

WHMIS classification

D1A - Very toxic material causing immediate and serious toxic effects

Classification system

HMIS ratings (scale 0-4)

(Hazardous Materials Identification System)

Health (acute effects) = 3

Flammability = 1

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:

563-68-8 Thallium(I) acetate

Identification number(s):

EC number:

209-257-5

Index number:

081-002-00-9

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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 has been completely removed.

In case of irregular breathing or respiratory arrest provide artificial respiration.

If inhaled:

Supply 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:

Do not induce vomiting; immediately call for medical help.

Information for doctor

Most important symptoms and effects, both acute and delayed

No information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available

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## **SECTION 5. FIREFIGHTING MEASURES**

Extinguishing media

Suitable extinguishing media

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

Toxic metal oxide fume

Advice for firefighters

Protective equipment:

Wear self-contained respirator.

Wear fully protective impervious suit.

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

Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep

unprotected persons away.

Ensure adequate ventilation

Environmental precautions:

Do not allow material to be released to the environment without official permits.

Methods and material for containment and cleanup:

Dispose of contaminated material

as waste according to section 13.

Ensure adequate ventilation.

Prevention of secondary hazards:

No special measures required.

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**

Handling

Precautions for safe handling

Handle under dry protective gas.

Keep container tightly sealed.

Store in cool, dry place in tightly closed containers.  
Ensure adequate ventilation.  
Open and handle container with care.  
Information about protection against explosions and fires:  
No data available.  
Conditions for safe storage, including any incompatibilities  
Storage  
Requirements to be met by storerooms and receptacles:  
No special requirements.  
Information about storage in one common storage facility:  
Store away from water/moisture.  
Store away from oxidizing agents.  
Further information about storage conditions:  
Store under dry inert gas.  
This product is hygroscopic.  
Keep container tightly sealed.  
Store in cool, dry conditions in well-sealed containers.  
Protect from humidity and water.  
Specific end use(s)  
No information 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:  
563-68-8 Thallium(I) acetate (100.0%)  
PEL (USA)  
Long-term value: 0.1 mg/m<sup>3</sup>  
as TI; Skin  
REL (USA)  
Long-term value: 0.1 mg/m<sup>3</sup>  
as TI; Skin  
TLV (USA)  
Long-term value: 0.02\* mg/m<sup>3</sup>  
as TI; \*inhalable fraction; Skin  
EL (Canada) Long-term value: 0.1 mg/m<sup>3</sup>  
as TI; Skin  
Additional information:  
No data  
Exposure controls  
Personal protective equipment  
Follow typical general protective and industrial hygiene measures 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.  
Store protective clothing separately.  
Breathing equipment:  
Use self-contained respiratory protective device in emergency situations.  
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.

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:

Solution

Color:

Off-white

Odor:

Odorless

Odor threshold:

No data available.

pH:

N/A.

Melting point/range:

131 °C (268 °F)

Boiling point/range:

No data available.

Sublimation temperature / start:

No data available.

Flammability (solid, gas):

No data available.

Ignition temperature:

No data available.

Decomposition temperature:

No data available.

Auto igniting:

No data available.

Danger of explosion:

No data available.

Explosion limits:

Lower:

No data available.

Upper:

No data available.

Vapor pressure:

N/A.

Density:

No data available.

Relative density

No data available.

Vapor density

N/A.

Evaporation rate  
N/A.  
Solubility in / Miscibility with  
Water:  
No data available.  
Partition coefficient (n-octanol/water):  
No data available.  
Viscosity:  
Dynamic:  
N/A.  
Kinematic:  
N/A.  
Other information  
No further relevant information 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 information available.  
Incompatible materials:  
Water/moisture  
Oxidizing agents  
Hazardous decomposition products:  
Carbon monoxide and carbon dioxide  
Toxic metal oxide fume

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

Information on toxicological effects  
Acute toxicity:  
Fatal if inhaled.  
Fatal if swallowed.  
The Registry of Toxic Effects of Chemical Substances (RTECS) contains acute toxicity data for this substance.  
LD/LC50 values that are relevant for classification:  
Oral LD50 41.3 mg/kg (rat)  
Skin irritation or corrosion:  
May cause irritation  
Eye irritation or corrosion:  
May cause irritation  
Sensitization:  
No sensitizing effects known.  
Germ cell mutagenicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains mutation data for this substance.

Carcinogenicity:

EPA-II: Inadequate information to assess carcinogenic potential.

Reproductive toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains reproductive data for this substance.

Specific target organ system toxicity - repeated exposure:

May cause damage to organs through prolonged or repeated exposure.

Specific target organ system toxicity - single exposure:

N/A

Aspiration hazard:

N/A

Subacute to chronic toxicity:

The Registry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data for this substance.

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 information available.

Persistence and degradability:

No information available.

Bioaccumulative potential:

No information available.

Mobility in soil:

No further relevant information available

Additional ecological information:

General notes:

Do not allow material to be released to the environment without official permits.

Do not allow product to reach ground water, water course or sewage system, even in small quantities.

Danger to drinking water if even extremely small quantities leak into the ground.

Also poisonous for fish and plankton in water bodies.

Toxic to aquatic life.

May cause long lasting harmful effects to aquatic life.

Avoid transfer into the environment.

Results of PBT and vPvB assessment:

PBT:

N/A.

vPvB:

N/A.

Other adverse effects

No information available.

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## SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Recommendation:

Consult state, local or national 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

UN1707

UN proper shipping name

DOT

Thallium compounds, n.o.s. (Thallium(I) acetate)

IMDG

THALLIUM COMPOUND, N.O.S. (Thallium(I) acetate), MARINE POLLUTANT

IATA

THALLIUM COMPOUND, N.O.S. (Thallium(I) acetate)

Transport hazard class(es)

DOT

Class

6.1 Toxic substances.

Label

6.1

Class

6.1 (T5) Toxic substances

Label

6.1

IMDG

Class

6.1 Toxic substances.

Label

6.1

IATA

Class

6.1 Toxic substances.

Label

6.1

Packing group

DOT, IMDG, IATA

II

Environmental hazards:

Environmentally hazardous substance, solid; Marine Pollutant

Marine pollutant (IMDG):

Symbol (fish and tree)

Special precautions for user

Warning: Toxic substances

EMS Number:

F-A,S-A

Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

N/A.

Transport/Additional information:

DOT

Marine Pollutant (DOT):



No

Remarks:

Special marking with the symbol (fish and tree).

UN "Model Regulation":

UN1707, Thallium compounds, n.o.s. (Thallium(I) acetate), 6.1, II

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## SECTION 15. REGULATORY INFORMATION

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

GHS label elements

The product is classified and labeled in accordance with 29 CFR 1910 (OSHA HCS)

Hazard pictograms

GHS06

GHS08

Signal word

Danger

Hazard statements

H300+H330 Fatal if swallowed or if inhaled.

H373

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

P260

Do not breathe dust/fume/gas/mist/vapors/spray.

P284

[In case of inadequate ventilation] wear respiratory protection.

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

P320

Specific treatment is urgent (see on this label).

P405

Store locked up.

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)

563-68-8 Thallium(I) acetate

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.

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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.