

# SAFETY DATA SHEET

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## SECTION 1. IDENTIFICATION

**Product Name:** Tris(ethylmethyamido)aluminum, dimer

**Product Number:** All applicable American Elements product codes, e.g. AL-OMX-018

**CAS #:** 480438-29-7

**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

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## SECTION 2. HAZARDS IDENTIFICATION

CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

GHS CLASSIFICATION:

Flammable liquids (Category 1)

In contact with water, releases flammable gas (Category 2)

Skin corrosion/irritation (Category 1)

Serious eye damage (Category 1)



Pictogram

Signal Word Danger

Hazard Statements

H224

Extremely flammable liquid and vapor

H261

In contact with water releases flammable gas

H314

Causes severe skin burns and eye damage

H318

Causes serious eye damage

## Precautionary Phrases

P210

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

P223

Keep away from any possible contact with water, because of violent reaction and possible flash fire.

P233

Keep container tightly closed.

P235

Keep cool..

P240

Ground/bond container and receiving equipment.

P241

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

P242

Use only non-sparking tools

P243

Take precautionary measures against static discharge.

P260

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

P264

Wash hands thoroughly after handling.

P280

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

P231 + P232

Handle under inert gas. Protect from moisture.

P310

Immediately call a POISON CENTER or doctor/physician.

P363

Wash contaminated clothing before reuse.

P301 + P330 + P331

IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

P303 + P361 + P353

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

P304 + P340

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P335 + P334

Brush off loose particles from skin. Immerse in cool/water/wrap in wet bandages.

P370 + P378

In case of fire: Use carbon dioxide or dry powder for extinction.

P402 + P404

Store in a dry place. Store in a closed container.

P403 + P235

Store in a well-ventilated place. Keep cool.

P405

Store locked up.

NFPA Rating: Health: 3 Flammability: 3 Reactivity: 3

Special: Water reactive!

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## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Formula: C<sub>18</sub>H<sub>48</sub>N<sub>6</sub>Al<sub>2</sub>

Molecular Weight: 402.60 g/mol

Synonyms: Tris(ethylmethylamino)alane, dimer

CHEMICAL NAME CAS#

Tris(ethylmethyramido)aluminum, dimer 480438-29-7

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## SECTION 4. FIRST AID MEASURES

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.

**SKIN EXPOSURE:** Wash off immediately with plenty of water for at least 15 minutes. Immediately remove contaminated clothing, and any extraneous chemical, if possible to do so without delay.

**INHALATION:** Remove victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in

breathing, coughing, wheezing, or pain. If not breathing, give artificial respiration. Seek medical attention.

**INGESTION:** Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Seek immediate medical attention.

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## SECTION 5. FIREFIGHTING MEASURES

**EXTINGUISHING MEDIA:**

Suitable Carbon dioxide, or dry powder.

Unsuitable DO NOT USE WATER!

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:**

Carbon monoxide, carbon dioxide, nitrogen oxides, and aluminum oxide.

**ADVICE FOR FIRE FIGHTERS**

Wear self contained breathing apparatus for fire fighting if necessary. Wear protective clothing to prevent contact with eyes and skin. Specific hazards- Flammable liquid. Water reactive material. Emits toxic fumes under fire conditions.

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## SECTION 6. ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS**

Wear suitable protective clothing, rubber boots and heavy rubber gloves, eye and face protection. Use self-contained breathing apparatus and chemically protective clothing. Remove all sources of ignition. Evacuate personnel to safe areas.

**ENVIRONMENTAL PRECAUTIONS**

Do not allow material to enter drains or streams.

**METHODS AND MATERIALS**

Approach suspected leak areas with caution. Absorb with inert absorbent materials such as: Dry sand, vermiculite, activated charcoal. Use appropriate chemical waste container. Ventilate area and wash spill site after material pick up is complete.

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

### **PERSONAL PRECAUTIONS**

Avoid contact with skin and eyes. Keep away from sources of ignition. Prevent build up of electrostatic charge. Avoid inhalation of vapor or mist. Avoid prolonged or repeated exposure.

### **CONDITIONS FOR SAFE STORAGE**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage. Protect from humidity and water. Keep container tightly sealed.

### **INCOMPATIBILITIES:**

Water, strong oxidizing agents

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## **SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

### **COMPONENTS WITH WORKPLACE CONTROL PARAMETERS**

Contains no substances with occupational exposure limit values.

### **APPROPRIATE ENGINEERING CONTROLS**

Maintain process conditions to ensure temperature is below flashpoint. Use non-sparking tools. Be sure there is adequate ventilation. Be sure to provide readily accessible eye wash stations and safety showers.

### **PERSONAL PROTECTIVE EQUIPMENT**

**RESPIRATORY PROTECTION:** Use respirators and components tested and approved under appropriate government shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination or type ABEK respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator.

**EYE/FACE PROTECTION:** Chemical safety goggles.

**SKIN PROTECTION:** Compatible chemical-resistant gloves.

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

**COLOR AND FORM:** Colorless liquid

**FORMULA MASS:** 402.61 g/mol

**ODOR:** No data available

**ODOR THRESHOLD:** No data available

**pH:** No data available

**MELTING POINT/ FREEZING POINT:** No data available

**BOILING POINT:** No data available

**FLASH POINT:** -30o C

**EVAPORATION RATE:** No data available

**UPPER/LOWER FLAMMABILITY/EXPLOSION LIMITS:** No data available

**VAPOR PRESSURE:** 1 torr @ 118 oC

**VAPOR DENSITY:** No data available

**RELATIVE DENSITY:** 0.9430 g/cm<sup>3</sup>

**SOLUBILITY IN WATER:** Reacts violently

**PARTITION COEFFICIENT: N-OCTANOL/WATER:** no data available

**AUTO-IGNITION TEMPERATURE:** No data available

**DECOMPOSITION:** No data available

**VISCOSITY:** No data available

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

CONDITIONS TO AVOID: Heat, flames, and sparks. Exposure to moisture.

POSSIBILITY OF HAZARDOUS REACTION: Will not polymerize.

CONDITIONS TO AVOID: Avoid contact with air. Store in a dry place. Store in a location away from water supplies and sewers. Avoid heat, sparks, flame and other ignition sources.

INCOMPATIBILITY: Strong oxidizing agents.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, aluminum oxide, nitrogen oxides

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## **SECTION 11. TOXICOLOGICAL INFORMATION**

ACUTE TOXICITY: No data available

SKIN CORROSIVE/IRRITANT: Can cause severe burns to the skin.

SKIN ABSORPTION: May be harmful if absorbed through the skin.

SERIOUS EYE DAMAGE/IRRITATION: Can cause serious damage to eyes.

RESPIRATORY OR SKIN SENSITIZATION: May be harmful if inhaled. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

INGESTION: May be harmful if swallowed.

GERM CELL MUTAGENICITY: No data available

CARCINOGENICITY: No data available.

REPRODUCTIVE TOXICITY: No data available

STOT-Single Exposure: No data available

STOT-Repeated Exposure: No data available

ASPIRATION HAZARD: No data available

SIGNS AND SYMPTOMS OF EXPOSURE:

Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes, and skin.

Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis, and pulmonary edema.

Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, and nausea.

Physical and toxicological properties have not been thoroughly investigated.

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## **SECTION 12. ECOLOGICAL INFORMATION**

TOXICITY: No data available

PERSISTENCE AND DEGRADABILITY: No data available

BIOACCUMULATIVE POTENTIAL: No data available

MOBILITY IN SOIL: No data available

OTHER ADVERSE EFFECTS: No data available

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## **SECTION 13. DISPOSAL CONSIDERATIONS**

Dispose of all product and materials according to the state, local, or national regulations.

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## **SECTION 14. TRANSPORT INFORMATION**

Organometallic substance, liquid, water-reactive, flammable (tris(ethylmethyamido)aluminum, dimer)  
Class 4.3  
UN3398  
PG I  
Marine Pollutant: No data available

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## **SECTION 15. REGULATORY INFORMATION**

INDUSTRIAL SAFETY AND HEALTH ACT: Title compound not listed.  
OTHER REQUIREMENTS IN DOMESTIC AND OTHER COUNTRIES: Title compound not listed.  
OSHA Hazards:  
Flammable liquid, Corrosive.

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## **SECTION 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.