SECTION 1  PRODUCT AND COMPANY INFORMATION

PRODUCT NAME:  Aluminum t-Butoxide
PART NUMBER:  1011
CAS NUMBER:  556-91-2
SYNONYM:  Aluminum Tri-tert-butoxide, Aluminum tert-butoxide, tri-tert-butoxyaluminum.

MANUFACTURER:
Prochem, Inc.
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Rockford, IL  61109
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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC:  1-800-424-9300

SECTION 2  HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram

Signal Word  Danger

Hazard Statements

H314  Causes severe skin burns and eye damage
H228  Flammable solid
H335  May cause respiratory irritation

Precautionary Phrases

P210  Keep away from heat/sparks/open flames/ hot surfaces.  -  No smoking.
P260  Do not breathe dust/fume/gas/mist/vapours/spray.
P280  Wear protective gloves/protective clothing/eye protection/face protection.
P310  Immediately call a POISON CENTER or doctor/physician.
P303 + P361 + P353  IF ON SKIN (or hair): Remove/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.
P405  Store locked up.
SECTION 2  HAZARDS IDENTIFICATION (Cont.)

POTENTIAL HEALTH EFFECTS: Inhalation, Ingestion, Skin, and Eye contact
EYE CONTACT: Strong corrosive and irritating effect. Causes burns.
SKIN CONTACT: Corrosive effect on skin, Causes burns.
INHALATION: Corrosive and destructive to mucous membranes and respiratory tract.
INGESTION: Corrosive effect, burns, perforation.
SIGNS AND SYMPTOMS OF EXPOSURE: Symptoms of exposure may include burning sensation, coughing, wheezing, laryngitis, shortness of breath, headache, nausea, and vomiting. Inhalation may result in spasm, inflammation and edema of the larynx and bronchi, chemical pneumonitis and pulmonary edema. Material is extremely destructive to tissue of the mucous membranes and upper respiratory tract, eyes and system.

SECTION 3  COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  \( \text{Al} (\text{C}_4\text{H}_9\text{O})_3 \)
Molecular Weight: 246.33

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<thead>
<tr>
<th>CHEMICAL NAME</th>
<th>CAS#</th>
<th>%</th>
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<td>Aluminum t-Butoxide</td>
<td>556-91-2</td>
<td>100</td>
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SECTION 4  FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for several minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate medical attention.
SKIN EXPOSURE: Wash affected area with soap and copious amounts of water; rinse thoroughly. Remove contaminated clothes if necessary. Seek medical assistance if burns, redness, irritation persists/develop.
INHALATION: Remove victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases give oxygen if available. Seek immediate medical assistance. If not breathing, administer CPR.
INGESTION: Do not induce vomiting. Rinse out mouth if conscious. Seek medical assistance immediately.

SECTION 5  FIREFIGHTING MEASURES

FLASH POINT: No data
AUTO IGNITION TEMPERATURE: Not applicable
EXPLOSION LIMITS: Powder form is capable of creating a dust explosion.
EXTINQUISHING MEDIUM: Carbon dioxide, dry chemical powder or appropriate foam.
SPECIAL FIRE FIGHTING PROCEDURES: If this product is involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.
HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Aluminum oxide, carbon monoxide, carbon dioxide.
UNUSUAL FIRE OR EXPLOSION HAZARDS: None known

SECTION 6  ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Keep unprotected persons away. Wear appropriate respiratory and protective equipment to avoid exposure with material. Use non-sparking tools. Ventilate area.
ENVIRONMENTAL PRECAUTIONS: Do not allow material to be released to the environment without proper governmental permits.
METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Isolate spill, keeping away from ignition sources. Sweep up and place in a well-marked container for disposal.

SECTION 7  HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Air and Moisture Sensitive. Store under Nitrogen. Keep ignition sources away. Protect against electrostatic charges. CORROSIVE FLAMMABLE SOLID. Causes burns. Do not breathe dust. Do not get in eyes, on skin, or on clothing. Avoid prolonged or repeated exposure.
SECTION 7      HANDLING AND STORAGE (Cont.)

CONDITIONS FOR SAFE STORAGE: Keep in tightly sealed container. Store in a cool, dry, well-ventilated area away from incompatible materials.

SECTION 8      EXPOSURE CONTROLS AND PERSONAL PROTECTION

EYE PROTECTION: Always wear approved safety glasses with side shields, safety goggles, and face shield when handling a chemical substance in the laboratory.
SKIN PROTECTION: Wear appropriate chemical resistant gloves, rubber, neoprene.
VENTILATION: Chemical fume hood
RESPIRATOR: If ventilation if not available, a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29CFR 1910.34.
ADDITIONAL PROTECTION: Eyewash station/safety shower in area. Use in a controlled environment. Do not eat, drink, or smoke in area. Avoid contact with skin, eyes, and clothing. Use with adequate ventilation. CORROSIVE. Causes burns. FLAMMABLE. Keep away from all sources of ignition.

SECTION 9      PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Light-gray to gray powder
MOLECULAR WEIGHT: 246.33
MELTING POINT: 200-202° C
SPECIFIC GRAVITY: 1.0251 g/cm³
BOILING POINT: No data
VAPOR PRESSURE: No data
SOLUBILITY IN WATER: Decomposes

SECTION 10      STABILITY AND REACTIVITY

STABILITY: May decompose on exposure to moist air or water.
HAZARDOUS POLYMERIZATION: Will not occur
CONDITIONS TO AVOID: Moist air, water, all sources of ignition (sparks, flame)
INCOMPATIBILITY: Acids
DECOMPOSITION PRODUCTS: Carbon monoxide, carbon dioxide, metal oxide fume

SECTION 11      TOXICOLOGICAL DATA

CARCINOGENIC EFFECTS: No data
MUTAGENIC EFFECTS: No data
TETRATOGENIC EFFECTS: No data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated. For research and development purposes only.

SECTION 12      ECOLOGICAL DATA

DO not allow product to reach ground water, water course or sewage system. Do not allow material to be released to the environment without proper governmental permits.

SECTION 13      DISPOSAL CONSIDERATIONS

Dispose of in according to local state and federal regulations.
SECTION 14 TRANSPORTATION DATA

Flammable solid, corrosive, organic, n.o.s. (Aluminum t-Butoxide)
Class 4.1 (8)
UN2925
PG II

IATA and DOT regulated.

SECTION 15 REGULATORY INFORMATION

TSCA: No data
SARA (TITLE 313): No data
RCRA: No data

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

DATE PREPARED: 10/13