

# MATERIAL SAFETY DATA SHEET

Manufacturer: ProChem, Inc.  
826 Roosevelt Road  
Rockford, IL 61109

Phone: (815) 398-1788  
Fax: (815) 398-1810  
E-Mail: Prochem1@aol.com

24 HR. EMERGENCY PHONE CHEM-TREC 1-800-424-9300

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## SECTION 1 Product Identification

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**CHEMICAL NAME:** ALUMINUM T-BUTOXIDE  
**PRODUCT NUMBER:** 1011  
**CAS REGISTRY NUMBER:** 556-91-2  
**FORMULA:** Al(C<sub>4</sub>H<sub>9</sub>O)  
**SYNONYMS:** Aluminum Tri-tert-butoxide

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## SECTION 2 Composition and Information on Ingredients

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INGREDIENT:	CAS#	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	556-91-2	100	No data	No Data

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## SECTION 3 Hazards Identification

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**EMERGENCY OVERVIEW:** CORROSIVE Causes Burns FLAMMABLE  
**PRIMARY ROUTES OF EXPOSURE:** 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.

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## SECTION 4 First Aid Measures

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**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.

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## SECTION 5 Firefighting Measures

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**FLASH POINT:** No Data

**AUTOIGNITION TEMPERATURE:** Not applicable

**EXPLOSION LIMITS:** Powder form is capable of creating a dust explosion.

**EXTINGUISHING MEDIUM:** Carbon dioxide, dry chemical powder or appropriate foam.

**SPECIAL FIREFIGHTING 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 EXPLOSTION HAZARDS:** None known

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## SECTION 6 Accidental Release Measures

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**SPILL AND LEAK PROCEDURES:** Keep unprotected persons away. Wear adequate protective equipment. Isolate spill, keeping away from ignition sources. Use non-sparking tools. Sweep up and place in a well-marked container for disposal. Ventilate area.

**DISPOSAL:** Dispose of in accordance with all waste disposal regulations.

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## SECTION 7 Handling and Storage

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**HANDLING AND STORAGE:** Air and Moisture Sensitive. Store under Nitrogen. Keep in a tightly sealed container. Store in a cool, dry, well-ventilated area away from incompatible materials. Keep ignition sources away. Protect against electrostatic charges. **CORROSIVE FLAMMABLE SOLID.** Causes burns. Wear adequate protection when handling. Do not breathe dust. Do not get in eyes; on skin, on clothing. Avoid prolonged or repeated exposure.

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## SECTION 8 Exposure Controls and Personal Protection

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**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles when handling a chemicals 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.

**ADDITION INFORMATION:** Eyewash station/safety shower in area. Use in a controlled environment. Do not eat, drink or smoke in area. Avoid contact with skin, eyes, clothing. Use with adequate ventilation. **CORROSIVE.** Causes burns. **FIAMMABLE.** Keep away from all sources of ignition.

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## **SECTION 9                      Physical and Chemical Properties**

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**COLOR AND FORM:** Light-gray to gray powder  
**MOLECULAR WEIGHT:** 246.33  
**MELTING POINT (DEG. C.):** No Data  
**SPECIFIC GRAVITY (WATER = 1):** No Data  
**BOILING POINT:** No Data.  
**VAPOR PRESSURE:** No Data  
**VAPOR DENSITY (AIR = 1):** No Data  
**% VOLATILE BY VOLUME:** No Data  
**SOLUBILITY:** Decomposes

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## **SECTION 10                  Stability and Reactivity**

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**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

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## **SECTION 11                Toxicological Information**

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**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.

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## **SECTION 12                Ecological Information**

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**ECOLOGICAL INFORMATION:** 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.

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## **SECTION 13                Disposal Considerations**

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**DISPOSAL:** Dispose of in according to local state and federal regulations.

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## **SECTION 14                Transportation Information**

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Flammable solid, corrosive, organic, n.o.s. (Aluminum t-Butoxide) Class 4.1 (8) , UN 2925, PG II  
IATA AND DOT REGULATED  
Labels required: Flammable solid and Corrosive

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**SECTION 15      Regulatory Information**

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**TSCA:** No Data

**SARA (TITLE 313):** No Data

**RCRA:** No Data

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**SECTION 16      Other Information**

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**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:** 09/09