

# SAFETY DATA SHEET

## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Dimethylaluminum isopropoxide**

FORMULA:  $C_5H_{13}AlO$

CAS NO: 6063-89-4

SYNONYMS: Dimethylisopropoxyaluminum, Dimethylaluminum i-propoxide, Dimethylisopropoxy alane

Intended Use: For R&D use only.

### MANUFACTURER:

Wonik Materials North America  
N115 W19392 EDISON DRIVE  
GERMANTOWN, WI 53022

PHONE: 1-262-293-0251  
FAX: 1-262-253-1258

IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC 1-703-741-5500

FOR TECHNICAL INFORMATION CONTACT: 1-262-293-0251

## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

#### GHS CLASSIFICATION

Flammable liquids (Category 2)

Substances and mixtures which in contact with water emit flammable gases (Category 2)

Skin corrosion/irritation (Category 1B)

Serious eye damage/eye irritation (Category 1)

Specific target organ toxicity (single exposure) (Category 3)

Pictogram



Signal Word

**Danger**

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

### Hazard Statements

H225	Highly Flammable liquid and vapour
H261	In contact with water releases flammable gases
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation

### Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking
P223	Do not allow contact with water
P280	Wear protective gloves/protective clothing/eye protection/face protection
P231 + P232	Handle under inert gas. Protect from moisture
P240	Ground/Bond container and receiving equipment
P241	Use explosion-proof electrical equipment
P242	Use only non-sparking tools
P243	Take precautionary measures against static discharge
P260	Do not breathe vapors
P264	Wash hands thoroughly after handling
P271	Use only outdoors or in a well-ventilated area
P284	Wear respiratory protection
P301 + P330 + P331	If swallowed: rinse mouth. Do NOT induce vomiting
P305 + P351 + P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Call a POISON CENTER or doctor/physician.
P303 + P361 + P353 + P335 + P334	If on SKIN (or hair): take off immediately all contaminated clothing. rinse skin with water/shower. Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages
P304 + P310 + P340	If INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse
P370 + P378	In case of fire: Use dry chemical powder followed by sand or dolomite to extinguish
P402 + P404	Store in a dry place. Store in a closed container
P403 + P233 + P235	Store in a well-ventilated place. Keep container tightly closed. Keep in a cool place
P501	Dispose of contents/container to licensed waste disposal facility

### HMIS Classification:

Health: 4

Flammability: 4

Physical Hazards: 2

Special: Water Reactive

### NFPA Rating:

Health: 4

Flammability: 4

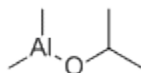
Reactivity: 2

Special: Water Reactive

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: C<sub>5</sub>H<sub>13</sub>AlO

Molecular Weight: 116.13 g/mol



CHEMICAL NAME	CAS#
Dimethylisopropoxyaluminum	6063-89-4

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Remove contacts if easily possible. Get immediate, professional care from qualified physician or emergency care facility.

**SKIN EXPOSURE:** Wash affected area with copious amounts of water for at least 15 minutes. Remove contaminated clothes and shoes if necessary. Seek medical assistance immediately.

**INHALATION:** Remove victim to fresh air and keep at rest in a position comfortable for breathing. If you feel unwell, seek medical advice.

**INGESTION:** Rinse out mouth with water provided person is conscious. Seek immediate medical assistance.

**NOTE:** Remove contaminated clothing and shoes. In case of accident or if you feel unwell, seek medical advice immediately. If possible show this sheet; if not available show packaging or label.

## SECTION 5 FIREFIGHTING MEASURES

### EXTINGUISHING MEDIA:

Suitable Dry chemical powder followed by sand or dolomite.

Unsuitable WATER

### CONDITIONS OF FLAMMABILITY

Highly flammable liquid and vapor. In contact with water releases flammable gases. Container explosion may occur during fire conditions. May form flammable/explosive vapor-air mixture.

### HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:

Aluminum oxides. Carbon monoxide. Formaldehyde. Hydrogen. Organic acid vapors.

### ADVICE FOR FIRE FIGHTERS

Do not enter fire area without proper protective equipment, including respiratory protection.

Avoid all eye and skin contact and do not breathe vapor and mist.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Ensure adequate ventilation.

Use personal protective equipment.

Avoid breathing vapors, mist, or gas.

Evacuate all personnel to safe areas.

Be sure to remove all sources of ignition.

### ENVIRONMENTAL PRECAUTIONS

Do not let product enter any drains.

If safe to do so, prevent all further leakage.

### METHODS AND MATERIALS

Cover with dry chemical extinguishing powder, lime, sand or soda ash. Do not use water.

Remove combustible materials in the vicinity of the spill. Allow time for decomposition or fire to burn out, then sweep material and transfer to a suitable container for disposal. Use only nonsparking tools.

## SECTION 7 HANDLING AND STORAGE

### PRECAUTIONS FOR SAFE HANDLING

Avoid all eye and skin contact and do not breathe vapor and mist. Ground/bond container and receiving equipment. Provide good ventilation in process area to prevent accumulation of vapors. Protect from moisture. Handle under inert gas. Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area.

### CONDITIONS FOR SAFE STORAGE

Moisture Sensitive.

Store under inert gas.

Keep in a cool place.

## SECTION 7 HANDLING AND STORAGE (Cont.)

Keep containers tightly closed.  
Store in a dry and well-ventilated location.  
To prevent leakage, store in an upright position.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

### CONTROL PARAMETERS

Dimethylisopropoxyaluminum (6063-89-4)

ACGIH	ACGIH TWA (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> aluminum alkyls as Al
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	2 mg/m <sup>3</sup> aluminum alkyls as Al

**RESPIRATORY PROTECTION:** Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. NIOSH-certified organic vapor (black cartridge) respirator.

**EYE/FACE PROTECTION:** Full face shield with chemical workers goggles. Contact lenses should not be worn.

**SKIN PROTECTION:** Flame retardant antistatic protective clothing. Always wear a complete suit that is rated to protecting against chemicals.

**HAND PROTECTION:** Neoprene or nitrile rubber gloves. Always wear gloves. Be sure to inspect gloves prior to use. Avoid all skin contact with product by using the proper glove removal technique. All contaminated gloves are to be disposed. Wash and dry hands thoroughly.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Clear Colorless Liquid

**MOLECULAR MASS:** 116.13 g/mol

**MELTING POINT/ FREEZING POINT:** < 10 °C/ No data available

**BOILING POINT:** 186 °C

**FLASH POINT:** 5 °C

**VAPOR PRESSURE:** 10 mm Hg @ 70°C

**DENSITY:** 0.828

**SOLUBILITY IN WATER:** Reacts violently with water

**ODOR:** Not available

**ODOR THRESHOLD:** Not available

**EVAPORATION RATE:** Not available

**VAPOR DENSITY AT 20 °C:** > 1

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable in sealed containers stored under a dry inert atmosphere.

**CONDITIONS TO AVOID:** Heat, flames and sparks. Avoid direct sunlight and extremes of temperature.

**INCOMPATIBILITY:** Alkalis. Bromine. Chlorine. Metal salts. Oxidizing agent. Precious metals. Water.

**DECOMPOSITION PRODUCTS:** Aluminum oxides. Carbon monoxide. Formaldehyde. Hydrogen. Organic acid vapors.

## SECTION 11 TOXICOLOGICAL DATA

### ACUTE TOXICITY

No data available

### CARCINOGENICITY

No data available

### POTENTIAL HEALTH EFFECTS

**INHALATION:** No data available

**SKIN:** Causes severe skin burns and eye damage.

**EYES:** Causes serious eye damage.

**INGESTION:** Harmful if swallowed.

Dimethylaluminum isopropoxide

## **SECTION 12 ECOLOGICAL DATA**

No data available

## **SECTION 13 DISPOSAL CONSIDERATIONS**

Burn the product in a chemical incinerator with an afterburner and scrubber but exert extra care in igniting, as this material is extremely flammable. Contact professional waste disposal service for disposal of material. Dispose of any contaminated product as you would unused product.

## **SECTION 14 TRANSPORTATION DATA**

Organometallic substance, liquid, water-reactive, flammable, n.o.s. (Dimethylaluminum isopropoxide)

Class 4.3 (3)

UN3399

PG II

IATA, IMDG, and DOT Regulated

Marine Pollutant: No

## **SECTION 15 REGULATORY INFORMATION**

### **TSCA EXEMPTION/EXCLUSION**

This material is supplied for research and development purposes subject to the R&D exemption under TSCA, 40 CFR 720.36, and must meet the requirements of the exemption, including supervision by a "technically qualified individual" as defined by 40 CFR 720.3(ee). The use of this material for "commercial purposes" as defined by 40 CFR 720.3(r) is not permitted in the United States

## **SECTION 16 OTHER INFORMATION**

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Wonik Materials North America 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.

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SDS DEPT