



# SAFETY DATA SHEET

ProChemOnline.com



## SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Titanium (IV) Diethylamide**

PRODUCT NUMBER: 3695

CAS NUMBER: 4419-47-0

SYNONYMS: Tetra(diethylamino)titanium 99%, Titanium(IV) tetrakis(diethylamide), N-ethylethanamine titanium (IV) salt.

### MANUFACTURER:

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IN CASE OF TRANSPORTATION EMERGENCY CONTACT CHEM-TREC: 1-800-424-9300

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## SECTION 2 HAZARDS IDENTIFICATION

### CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

**Danger**

### Hazard Statements

H225	Highly flammable liquid and vapor.
H260	In contact with water releases flammable gases which may ignite.
H314	Causes severe skin burns and eye damage.

### Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces.
P223	Keep away from any possible contact with water, because of violent reaction and possible flash fire.
P231+P232	Handle under inert gas. Protect from moisture.
P233	Keep container tightly closed.
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.
P264	Wash skin thoroughly after handling.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P301+P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

## SECTION 2 HAZARDS IDENTIFICATION (Cont.)

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.
P310	Immediately call a POISON CENTER or doctor/physician.
P335+P334	Brush off loose particles from skin. Immerse in cool water/wrap in wet bandages.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.
P402+P404	Store in a dry place. Store in a closed container.
P403+P233	Store in a well-ventilated place.
P501	Dispose of contents/container to an approved waste disposal plant.

### HMIS CLASSIFICATION:

Health: 3 Fire: 3 Reactivity Hazard: 2

### NFPA RATING:

Health: 3 Flammability: 3 Reactivity Hazard: 2 Specific Hazard: W

**EYE CONTACT:** Causes burning of the eyes.

**SKIN CONTACT:** Causes burns to the skin. Prolonged contact may dry the skin and lead to redness.

**INHALATION:** Corrosive to the nose, mucous membranes, and respiratory tract.

**INGESTION:** Causes burns to the mouth, throat, and stomach.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula:  $Ti(N(C_2H_5)_2)_4$

Molecular Weight: 336.40

CHEMICAL NAME	CAS#	%
Titanium (IV) Diethylamide	4419-47-0	100

## SECTION 4 FIRST AID MEASURES

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

**SKIN EXPOSURE:** Wash the affected area immediately with water. Remove contaminated clothing if necessary. Seek medical assistance if irritation persists.

**INHALATION:** Remove to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

**INGESTION:** Seek medical attention immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting directed by medical personnel.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** -28.8°C – closed cup

**AUTO IGNITION TEMPERATURE:** Not available

**EXPLOSION LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Extinguishing powder. Do not use water. In case of fire, use sand, carbon dioxide, or powdered extinguishing agent. Never use water.

**SPECIAL FIRE FIGHTING PROCEDURES:** Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Carbon oxides, nitrogen oxides, and titanium oxides.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

**PERSONAL PRECAUTIONS:** Wear all appropriate equipment when using this material. Ensure adequate ventilation. Avoid breathing dusts. Vapors can accumulate in low areas. Remove all sources of ignition.

## SECTION 6 ACCIDENTAL RELEASE MEASURES (Cont.)

**ENVIRONMENTAL PRECAUTIONS:** Prevent spillage from entering drains or allowing to be released to the environment.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Small spills can be absorbed into vermiculite or other suitable absorbent. For larger spills, eliminate all potential ignition sources. Material may begin to hydrolyze forming irritating and noxious fumes. Absorb the material into sawdust or vermiculite.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Use with adequate ventilation. Avoid inhalation of vapors or mist. Keep away from sources of ignition.-No smoking. Take measures to prevent the buildup of electrostatic charge.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated area. Store under inert gas. Never allow product to get in contact with water during storage. Store away from oxidizing agents, water, moisture, and alcohols. Store in the dark. Protect from humidity, moisture, and light.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

**EXPOSURE CONTROLS:** This product contains no substances with occupational exposure limit values.

**EYE PROTECTION:** Wear chemical safety glasses or goggles.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, apron, or lab coat.

**VENTILATION:** Provide local exhaust, preferably mechanical.

**RESPIRATOR:** Use an approved respirator.

**ADDITIONAL PROTECTION:** Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Yellow to orange liquid

**ODOR:** Not available

**MOLECULAR WEIGHT:** 336.40

**BOILING POINT:** 85-90°C

**MELTING POINT:** Not available

**SPECIFIC GRAVITY:** 0.931 gm/ml

**SOLUBILITY:** Reacts with water

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Contact with water releases flammable gases

**CONDITIONS TO AVOID:** Heat, flames, sparks. Extremes of temperature and direct sunlight. Exposure to moisture.

**INCOMPATIBILITY:** Strong oxidizing agents, water, moisture, Halogens, acids, air, and light.

**DECOMPOSITION PRODUCTS:** Carbon oxides, nitrogen oxides, and titanium oxides

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** Not available

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified a carcinogen.

**MUTAGENIC EFFECTS:** Not available

**TETRATOGENIC EFFECTS:** Not available

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

## SECTION 12 ECOLOGICAL DATA

No data available.

## SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

## SECTION 14 TRANSPORTATION DATA

UN3399

Organometallic substance, liquid, water-reactive, flammable  
(Titanium (IV) Diethylamide)

CLASS 4.3 (8)

PG I

Marine Pollutant: No

## SECTION 15 REGULATORY INFORMATION

**TSCA:** Listed in the TSCA inventory

**SARA 302/304:** Not Listed

**SARA 311/312:** Fire Hazard, Reactivity Hazard, Acute Health Hazard

**SARA (TITLE 313):** Not Listed

**PENNSYLVANIA RIGHT TO KNOW:** Titanium (IV) Diethylamide

**NEW JERSEY RIGHT TO KNOW:** Titanium (IV) Diethylamide

**CALIFORNIA PROP. 65:** Not Listed

## 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.

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