

# MATERIAL SAFETY DATA SHEET

This form may be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.  
IDENTITY (As Used on Label and List): **Titanium phosphide, powder**  
Product Code: **T-MSDS0016** Reference #: **12037-65-9**

## SECTION I - PRODUCT IDENTIFICATION Titanium phosphide, powder

### MANUFACTURER NAME AND ADDRESS:

ProChem, Inc.  
826 Roosevelt Rd.  
Rockford IL 61109

### TELEPHONE NUMBERS:

CHEMTREC (800)424-9300  
ProChem, Inc. (800) 795-8788  
Local ( ) - 911  
Poison/Emrgncy

### DATES:

Date Created: 08/13/1986  
Revision: 03/23/2004  
Printed: 12/02/2005

### SYNONYMS

Titanium phosphide

CHEMICAL FAMILY: Metal phosphide

DOT HAZARD LABEL: FLAMMABLE SOLID

FORMULA: TiP

MOLECULAR WEIGHT: 78.85

## SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION Titanium phosphide, powder

### HAZARDOUS COMPONENTS (CHEMICAL NAME)

<u>NAME:</u>	Titanium phosphide	<u>PERCENTAGE:</u>	0.0 -100.0 %
<u>CAS #:</u>	12037-65-9	<u>ACGIH TLV:</u>	NE
<u>OSHA PEL:</u>	NE	<u>SEC.304 RQ:</u>	No
<u>OTHER LIMITS:</u>	NE		
<u>SEC.302 (EHS):</u>	No		
<u>SEC.313:</u>	No		

## SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS Titanium phosphide, powder

<u>PHYSICAL STATES:</u>	<input type="checkbox"/> Gas , <input type="checkbox"/> Liquid , <input checked="" type="checkbox"/> Solid
<u>BOILING POINT:</u>	N.A.
<u>MELTING POINT:</u>	1900.00 C (3452.0 F)
<u>SPECIFIC GRAVITY (WATER = 1):</u>	3.95 at 25.0 C (77.0 F)
<u>DENSITY:</u>	No data.
<u>VAPOR PRESSURE (VS. AIR OR MM HG):</u>	No data.
<u>VAPOR DENSITY (VS. AIR = 1):</u>	No data.
<u>EVAPORATION RATE (VS BUTYL ACETATE=1):</u>	No data.
<u>SOLUBILITY IN WATER:</u>	insoluble

**OTHER SOLUBILITY NOTES:**

insoluble in acid

**PERCENT VOLATILE:**

N.A.

**PH:**

No data.

**APPEARANCE AND ODOR**

Grey metallic powder; no odor

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**SECTION IV - FIRE AND EXPLOSION HAZARD DATA**  
**Titanium phosphide, powder**

**FLASH PT:** N.A. **METHOD USED:** FLAMMABLE SOLID

**EXPLOSIVE LIMITS:** LEL: NE UEL: NE

**EXTINGUISHING MEDIA**

USE: Class D or other metal extinguishing agent.

DO NOT USE: Water.

**SPECIAL FIRE FIGHTING PROCEDURES**

Firefighters must wear full face, self-contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. Fumes from fire are hazardous. Isolate runoff to prevent environmental pollution.

**UNUSUAL FIRE AND EXPLOSION HAZARDS**

When heated to decomposition, titanium phosphide may emit oxides of phosphorous.

Dangerous fire hazard, may react with water, moisture, steam, acid or acid fumes to produce phosphine, which often ignites.

Flammable when exposed to heat or flame.

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**SECTION V - REACTIVITY DATA**  
**Titanium phosphide, powder**

**STABILITY:** Unstable [ ] Stable [ X ]

**CONDITIONS TO AVOID - INSTABILITY**

None

**INCOMPATIBILITY - MATERIALS TO AVOID**

Water, steam, moisture, acids, acid fumes and oxidizing agents.

**HAZARDOUS DECOMPOSITION OR BYPRODUCTS**

Hydrogen phosphide (phosphine) and phosphorus oxides

**HAZARDOUS POLYMERIZATION:** Will occur [ ] Will not occur [ X ]

**CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION**

None

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**SECTION VI - HEALTH HAZARD DATA**  
**Titanium phosphide, powder**