

SUPPLIER



MATERIAL SAFETY DATA SHEET

GENERATED 03/15/2011, **REVISION** 05/08/1995, **DATE CREATED** 07/19/1991

SECTION I - PRODUCT IDENTIFICATION

Tantalum phosphide, powder and pieces

PRODUCT NAME: Tantalum phosphide, powder and pieces

PRODUCT CODE: T-MSDS0084

REFERENCE #: 12037-63-7

MANUFACTURER INFORMATION

COMPANY NAME: Materion Advanced Chemicals Inc.

1316 W. St. Paul Avenue

Milwaukee, WI 53233

EMERGENCY CONTACT: CHEMTREC (800)424-9300

ALTERNATE EMERGENCY CONTACT: Materion Advanced Chemicals Inc. (414)289-9800

CHEMICAL FAMILY: Metal phosphide

CAS NUMBER: 12037-63-7

FORMULA: TaP

MOLECULAR WEIGHT: 211.92

SYNONYMS

Tantalum phosphide

SECTION II - HAZARDOUS INGREDIENTS/IDENTITY INFORMATION

Tantalum phosphide, powder and pieces

Hazardous Components (Chemical Name)	CAS #	Concentration	OSHA PEL	ACGIH TLV	Other Limits
Tantalum phosphide	12037-63-7	0.0 -100.0 %	NE	NE	NE

SECTION III - PHYSICAL/CHEMICAL CHARACTERISTICS**Tantalum phosphide, powder and pieces**

<u>PHYSICAL STATES:</u>	<input type="checkbox"/> Gas	<input type="checkbox"/> Liquid	<input checked="" type="checkbox"/> Solid
<u>MELTING POINT:</u>	N.A.		
<u>BOILING POINT:</u>	N.A.		
<u>SPECIFIC GRAVITY (WATER = 1):</u>	NE		
<u>VAPOR PRESSURE (VS. AIR OR MM HG):</u>	NA		
<u>VAPOR DENSITY (VS. AIR = 1):</u>	NA		
<u>EVAPORATION RATE (VS BUTYL ACETATE=1):</u>	NA		
<u>SOLUBILITY IN WATER:</u>	NE		
<u>SOLUBILITY NOTES</u>			
<u>PERCENT VOLATILE:</u>	N.A.		
<u>APPEARANCE AND ODOR</u>			

Powder and pieces, no odor

SECTION IV - FIRE AND EXPLOSION HAZARD DATA**Tantalum phosphide, powder and pieces**

<u>FLASH PT:</u>	N.A.	Method Used:	Unknown
<u>EXPLOSIVE LIMITS:</u>	LEL: NA	UEL:	NA
<u>EXTINGUISHING MEDIA</u>			

USE: Not applicable. Use suitable extinguishing media for surrounding materials and type of fire.

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, tantalum phosphide may emit toxic oxides of phosphorus. Reacts with water to slowly evolve phosphine gas.

HAZARDOUS COMBUSTION PRODUCTS

SECTION V - REACTIVITY DATA

Tantalum phosphide, powder and pieces

STABILITY: Unstable [☐] Stable [☒]

CONDITIONS TO AVOID - INSTABILITY

None

INCOMPATIBILITY - MATERIALS TO AVOID

Water and moisture

HAZARDOUS DECOMPOSITION OR BYPRODUCTS

Oxides of phosphorus and phosphine

HAZARDOUS POLYMERIZATION: Will occur [☐] Will not occur [☒]

CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION

None

SECTION VI - HEALTH HAZARD DATA

Tantalum phosphide, powder and pieces

HEALTH HAZARDS (ACUTE AND CHRONIC)

To the best of our knowledge the chemical, physical and toxicological properties of tantalum phosphide have not been thoroughly investigated and recorded.

Phosphides are particularly dangerous because they tend to decompose to the very toxic phosphine upon contact with moisture or acids. (Sax, Dangerous Properties of Industrial Materials, eighth edition)

INHALATION:

Acute: May cause irritation to the respiratory system.

Chronic: No chronic health effects recorded.

INGESTION:

Acute: May cause nausea, vomiting, abdominal pain and diarrhea.

Chronic: No chronic health effects recorded.

SKIN:

Acute: May cause severe irritation to moist living tissue.

Chronic: No chronic health effects recorded.

EYE:

Acute: May cause severe irritation.

Chronic: No chronic health effects recorded.

TARGET ORGANS: May affect the respiratory system.

CARCINOGENICITY: NTP? No IARC Monographs? No OSHA Regulated? No

RECOMMENDED EXPOSURE LIMITS

See "Section II"

LD 50 / LC 50

No chronic health effects recorded

SIGNS AND SYMPTOMS OF EXPOSURE

INHALATION: May cause a red, dry, throat and coughing.

INGESTION: May cause nausea, vomiting, abdominal pain and diarrhea.

SKIN: May cause redness, inflammation and itching.

EYE: May cause redness, itching, inflammation and watering.

MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE

Pre-existing respiratory disorders.

EMERGENCY AND FIRST AID PROCEDURES

INHALATION: Remove victim to fresh air; keep warm and quiet; give oxygen if breathing is difficult and seek medical attention if symptoms persist.

INGESTION: Give 1-2 glasses of milk or water and induce vomiting; seek medical attention if symptoms persist. Never induce vomiting or give anything by mouth to an unconscious person.

SKIN: Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if symptoms persist.

EYE: Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if symptoms persist.

SECTION VII - PRECAUTIONS FOR SAFE HANDLING AND USE
Tantalum phosphide, powder and pieces

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED

Wear appropriate respiratory and protective equipment specified in section VIII-control measures. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for proper disposal. Take care not to raise dust.

WASTE DISPOSAL METHOD

Dispose of in accordance with local, state and federal regulations.

HAZARD LABEL INFORMATION:

Store in cool, dry area Store in tightly sealed container Wash thoroughly after handling

PRECAUTIONS TO BE TAKEN IN HANDLING

None

PRECAUTIONS TO BE TAKEN IN STORING

OTHER PRECAUTIONS

None

SECTION VIII - CONTROL MEASURES

Tantalum phosphide, powder and pieces

PROTECTIVE EQUIPMENT SUMMARY - HAZARD LABEL INFORMATION:

NIOSH approved respirator Impervious gloves Safety glasses Clothes to prevent skin contact

RESPIRATORY EQUIPMENT (SPECIFY TYPE)

NIOSH - approved dust-mist-vapor cartridge respirator

EYE PROTECTION

Safety glasses

PROTECTIVE GLOVES

Rubber gloves

OTHER PROTECTIVE CLOTHING

Protective gear suitable to prevent contamination

VENTILATION

Local Exhaust: To maintain concentration at low exposure levels

Special: Handle in a controlled environment

Mechanical (Gen): Recommended

Other: None

WORK/HYGIENIC/MAINTENANCE PRACTICES

Implement engineering and work practice controls to reduce and maintain concentration of exposure at low levels. Use good housekeeping and sanitation practices. Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

SECTION IX - ADDITIONAL COMMENTS
Tantalum phosphide, powder and pieces

No data available.

GENERATED 03/15/2011, **REVISION** 05/08/1995, **DATE CREATED** 07/19/1991