# Materials Group 1515 Worthington Ave. Clairton, PA 15025 Clairton, PA 15025 Materials Group 412.387.9200 Fax: 412.384.2573

Tantalum Pellets , Ta, 99.95% Pure 1/8" Diameter X 1/8" Long , 50 grams Part# EVMTA35EXEB Lot# TA39837131 / VPU000669

# **Material Certification**

Material Type: Ta	intalum, Ta	Analysis	Analysis Type: Actual,PPM by Wt.			
Description: Pellets, 1/8" Diameter X 1/8" Long, 50 grams Purity: 99.95%						
KJLC Part Numb	er: EVMTA35EXEB	Lot Numb	Lot Number: TA39837131 / VPU000669			
Ac:	Cu: 1	N: 6	Sc:			
Ag:	F:	Na:	Se:			
Al:	Fe: 18	Nb: 170	Si: 8			
Ar:	Ga:	Ne:	Sm:			
As:	Ge:	Ni: 28	Sn:			
At:	н: 1	0: 12	Sr:			
Au:	Не:	Os:	Ta: Rem.			
B:	Hf:	P:	Tb:			
Ba:	Hg:	Pb:	Te:			
Be:	I:	Pd:	Ti: 1			
Bi:	In:	Pt:	V:			
Br:	Ir:	Ra:	W: 112			
C: 6	K:	Rb:	Υ:			
Ca:	Kr:	Re:	Zn:			
Cd:	La:	Rh:	Zr:			
Cl:	Li:	Rn:				
Co:	Mg:	Ru:	:			
Cr: 22	Mn:	S:	¥ ,			
Cs:	Mo: 4	Sb:	3			

Materials Technician: John McElhattan Date: 8-01-07

KJLC Product Code: EVMTA35EXEB

# Kurt J. Lesker Company

Tantalum metal, pieces

Manufacturer MSDS Number: Ta

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# **SECTION 1: Chemical Product and Company Identification**

MSDS Name: Tantalum metal, pieces

Manufacturer Name: Kurt J. Lesker Company

Address:

1925 Worthington Ave Clairton, PA 15205

For emergencies in the US, call CHEMTREC: 800-424-9300

Other Phone: US National Poison Hotline: (800)222-1222

Manufacturer MSDS Creation Date:

06/26/2006

Manufacturer MSDS Revision Date:

06/26/2006

Synonyms:

Tantalum metal, tantalum, tantalum-181

Chemical Family: Metal Chemical Formula: Ta Molecular Weight: 180.95 DOT HAZARD LABEL

No data.

Product Codes:

Та

(1)

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SECTION 2: Hazardous Ingredients/Identity Information						
Chemical Name Tantalum metal	<b>CAS#</b> 7440-25-7	<b>% Weight</b> 0.0 -100.0 %				
Chemical Name See SECTION IX-ADDITIONAL COMMENTS FOR COSHH Regulations	CAS# NA	<b>% Weight</b> 0.0 –100.0 %				

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**SECTION 3: Physical And Chemical Characteristics** 

Physical State/Appearance:

Black, steel-blue, platinum metal pieces, no odor.

Physical State:

LLGas Illiquid [XLSolid

Vapor Pressure:

0 at 20.0 C (68.0 F) (VS. AIR OR MM HG)

Vapor Density:

No data. (VS. AIR = 1)

**Boiling Point:** 

5325.00 deg C (9617.0 deg F) to 5525.00

Melting Point:

2996.00 deg C (5424.8 deg F)

Solubility In Water:

insoluble

Specific Gravity:

16.6 at 20.0 C (68.0 F) (WATER = 1)

Density:

No data.

**Evaporation Point:** 

No data. (VS BUTYL ACETATE=1)

Percent Volatile:

N.A.

FlashPoint:

N.A.

Upper Flammable Explosive Limit:

NA

Lower Flammable Explosive Limit:

NA

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TOF

#### **SECTION 4: Fire And Explosion Hazards**

Flash Point:

N.A.

Flash Point Method:

NON-FLAMMABLE

Upper Flammable or Explosive Limit: NA

Lower Flammable or Explosive Limit: NA

**Extinguishing Media:** 

Use powdered graphite, dolomite, or sodium chloride. Do not use water.

Fire Fighting Instructions:

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.

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# **SECTION 5: Health Hazards**

# Applies to All Ingredients:

Route of Exposure:

Inhalation? Yes , Skin? Yes , Eyes? Yes , Ingestion? Yes , Other: N

Potential Health Effects:

Eye Contact:

Powders or dust may cause abbrasive irritation.

Skin Contact:

Powders or dust may cause abbrasive irritation.

Inhalation:

Powders or dust may cause irritation to the respiratory tract and mucous membrane.

Tantalum

Ingestion:

No acute health effects recorded.

Chronic Eye Contact:a

No chronic health effects recorded.

Chronic Skin Contact:

No chronic health effects recorded.

Chronic Inhalation:

No chronic health effects recorded.

Chronic Ingestion:

No chronic health effects recorded.

Carcinogenicity:

NTP? No, IARC Monographs? No, OSHA Regulated? No

Target Organs:

May affect the respiratory system.

Signs/Symptoms:

INHALATION: May cause a red, dry throat, sneezing, coughing and difficulty breathing. INGESTION: No acute or chronic health effects recorded. SKIN: May cause redness and itching. EYE: May cause redness, itching and watering.

Other Potential Health Effects:

CARCINOGENICITY/OTHER INFORMATION: No data available.

Aggravation of Pre-Existing Conditions:

Pre-existing respiratory disorders.

See "Section II" LD 50/LC 50: imp-rat TDLO: 3760 mg/kg:ETA



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# **SECTION 6: Emergency And First Aid Procedures**

Eye Contact:

Flush eyes with lukewarm water, lifting upper and lower eyelids, for at least 15 minutes. Seek medical attention if irritation persists.

Skin Contact:

Remove contaminated clothing; brush material off skin; wash affected area with mild soap and water; seek medical attention if irritation persists.

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; Never induce vomiting or give anything by mouth to an unconscious person.

Note to Physicians:

No data available.



#### **SECTION 7: Reactivity Data**

Chemical Stability:

Unstable [] Stable [X]

Conditions to Avoid:

CONDITIONS TO AVOID - INSTABILITY: None; CONDITIONS TO AVOID - HAZARDOUS POLYMERIZATION: None

Incompatibilities with Other Materials:

Strong oxidizing agents, bromine trifluoride, fluorine, lead chromate, fused alkalis, dilute hydrofluoric acid.

Hazardous Polymerization:

Will occur [] Will not occur [X]

Hazardous Decomposition Products:

Tantalulm oxide



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Tantalum

# Spill Cleanup Measures:

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.

Other Precautions:

None

#### HAZARD LABEL INFORMATION:

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

Handling:

None

Storage:

None

Hygiene Practices:

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.

Waste Disposal:

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

DOT:

DOT HAZARD LABEL: No data.

**DOT UN Number:** 

3089

DOT Hazard Class: 4.1



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# **SECTION 9: Control Measures**

# Ventilation System:

Local Exhaust: Local exhaust ventilation may be necessary to control any air contaminants to within their PELs or TLVs during the use of this product. Special: None Mechanical (Gen): Good general ventilation is recommended. Other: None

Hand Protection Description:

Rubber gloves

Eye/Face Protection:

Safety glasses

Protective Clothing/Body Protection:

Protective gear suitable to prevent contamination

Respiratory Protection:

NIOSH - approved respirator

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

# **Ingredient Guidelines**

Ingredient: See SECTION IX-ADDITIONAL COMMENTS FOR COSHH Regulations

Guideline Information:

ACGIH TLV: No data.; OSHA PEL: No data.; OTHER LIMITS: No data.

Ingredient: Tantalum metal

Guideline Information:

ACGIH TLV: 5 mg/m3; OSHA PEL: 5 mg/m3; OTHER LIMITS: NE

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**SECTION 10: Other Information** 

# Tantalum metal:

Section 302:

No

Tantalum

Section 304:

No

Section 313 Toxic Release Form:

No

HMIS:

Health Hazard: 1

Fire Hazard: 0

Reactivity: 0

Personal Protection: B

#### Disclaimer:

Kurt J. Lesker Company (?KJLC?) believes the information contained in this Material Safety Data Sheet is accurate as of the ?Date of Last Revision? specified. The information relates only to typical properties of the product. Do not use the information for product performance or specification purposes. The information is for use by technically skilled persons at their own risk. KJLC MAKES NO EXPRESS OR IMPLIED WARRANTY OF ANY KIND, INCLUDING WITHOUT LIMITATION WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, WITH RESPECT TO THE PRODUCT OR THE INFORMATION. The information may not be valid for product use in combination with any other product or material or in any process. KJLC expressly disclaims any liability arising from any use of the product or any reliance on the information. Do not treat the information (a) as assurance that use of the product will not infringe patent or other rights or (b) as a license or grant of patent or other property rights. ?KJLC? means KJLC and each of its subsidiaries.

#### Comment:

Control of Substances Hazardous to Health Regulations EH40 Occupational Exposure Limits Maximum Exposure Limit: NE Occupational Exposure Standard: 5 mg/m3 10 mg/m3 Short-term Exposure Limit OTHER HAZARD RATINGS: Health: 1 Flammability: 0 Reactivity: 0 Special Hazard: B Minimal:0 Slight: 1 Moderate:2 Serious: 3 Extreme: 4

Abbreviations used

NA=Not Applicable NE: Not Established

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