

TELEDYNE INDUSTRIES INC -- TITANIUM METAL,4 P 02111-8 L -- 4730-01-240-6531

===== Product Identification =====

Product ID:TITANIUM METAL,4 P 02111-8 L

MSDS Date:04/10/1992

FSC:4730

NIIN:01-240-6531

MSDS Number: CFMSN

=== Responsible Party ===

Company Name:TELEDYNE INDUSTRIES INC

Address:1600 NE OLD SALEM RD

Box:460

City:ALBANY

State:OR

ZIP:97321-0460

Country:US

Info Phone Num:503-926-4211

Emergen

cy Phone Num:503-926-4211/800-424-9300(CHEMTREC)

CAGE:78022

=== Contractor Identification ===

Company Name:ADVANCED METAL COMPONENTS, INC.

Address:1374 WILLOW ROAD

Box:City:MENLO PARK

State:CA

ZIP:94025

Country:US

Phone:415-617-8915

CAGE:0S664

Company Name:TELEDYNE INDUSTRIES INC

Address:1600 NE OLD SALEM RD

Box:460

City:ALBANY

Phone:503-926-4211

CAGE:78022

Company Name:TELEDYNE WAH CHANG ALBANY

Box:460

City:ALBANY

State:OR

ZIP:97321

Country:US

Phone:503-926-4211

CAGE:1B843

Company Name:TUBE SAL

ES  
Box:UNKNOW  
CAGE:0D102

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Composition/Information on Ingredients  
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Ingred Name:TITANIUM  
CAS:7440-32-6  
RTECS #:XR1700000  
Fraction by Wt: >99%  
Other REC Limits:10 MG/M3 AS TDUST

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Hazards Identification  
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LD50 LC50 Mixture:LD50 (ORAL, RAT) IS NOT RELEVANT.  
Routes of Entry: Inhalation:NO Skin:NO Ingestion:NO  
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO  
Health Hazards Acute and Chronic:TARGET ORGANS: NONE. ACUTE AND

CHRONIC- NONE. TITANIUM METAL IS NON-TOXIC.  
Explanation of Carcinogenicity:NONE  
Effects of Overexposure:NONE  
Medical Cond Aggravated by Exposure:NONE

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First Aid Measures  
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First Aid:GET MEDICAL HELP IF SYMPTOMS DEVELOP. INHALED:NO FIRST AID SHOULD BE NEEDED. EYES:FLUSH WITH PLENTY OF WATER, HOLDING EYELIDS OPEN. SKIN:NO FIRST AID SHOULD BE NEEDED. ORAL:NO FIRST AID SHOULD BE NEEDED.

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Fire Fighting Measures  
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Flash Point:NONE  
Lower Limits:NOT RELEVANT  
Upper Limits:NOT RELEVANT  
Extinguishing Media:SMALL FIRE: USE TYPE D EXTINGUISHER OR TABLE SALT.  
LARGE FIRE: ALLOW TO BURN OUT. DO NOT USE WATER. CO2 NOT EFFECTIVE.  
Fire Fighting Procedures:WEAR FULL PROTECTIVE CLOTHING AND NIOSH-APPROVED SELF-CONTAINED BREATHING APPARATUS.  
Unusual Fire/Explosion Hazard:10 MICRON POWDER MAY IGNITE.

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Accidental Release Measures  
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Spill Release Procedures

:PICK UP AND PLACE IN APPROPRIATE CONTAINER FOR REUSE OR DISPOSAL.

Neutralizing Agent:NOT RELEVANT

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Handling and Storage  
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Handling and Storage Precautions:KEEP IN DRY AREA. AVOID DUST ACCUMULATION.

Other Precautions:DO NOT GENERATE DUST. AVOID BREATHING DUST. DO NOT GET DUST IN EYES. KEEP OUT OF REACH OF CHILDREN. TITANIUM METAL IS USED FOR CARDIAC PACEMAKERS BECAUSE IT IS LIGHT WEIGHT, DUCTIBLE, NON-REACTIVE IN BODY FLUID AND COMPLETELY NON-TOXIC.

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Exposure Controls/Personal Protection  
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Respiratory Protection:NONE NORMALLY REQUIRED. IF DUSTY CONDITION, A NIOSH APPROVED AIR SUPPLIED RESPIRATOR OR DUST RESPIRATOR IS ADVISED.

Ventilation:ADEQUATE

Protective Gloves:NONE SHOULD BE NEEDED.

Eye Protection:SAFETY GLASSES RECOMMENDED

Other Protective Equipment:EYE BATH, WASHING FACILITIES

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health

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Physical/Chemical Properties  
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HCC:N1

NRC/State Lic Num:NOT RELEVANT

Boiling Pt:B.P. Text:5949F,3287C

Melt/Freeze Pt:M.P/F.P Text:3020F,1660C

Spec Gravity:4.5

Viscosity:NOT RELEVANT

Evaporation Rate & Reference:NOT RELEVANT

Solubility in Water:INSOLUBLE

Appearance and Odor:SILVER GREY METAL - ODORLESS

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Stability and Reactivity Data  
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Stability Indicator/Materials to Avoid:YES  
HYDROFLUORIC AC

ID, CHLORINE GAS ABOVE 200C/392F  
Stability Condition to Avoid:DUST ACCUMULATION  
Hazardous Decomposition Products:NONE

===== Disposal Considerations =====

Waste Disposal Methods:FINE, NON-RECYCLABLE SCRAP SHOULD BE BURNED IN SMALL QUANTITIES UNDER CONTROLLED CONDITIONS. THE RESULTING TITANIUM OXIDE IS INERT AND MAY BE SENT TO A LANDFILL. ENSURE COMPLIANCE WITH LOCAL, STATE AND FEDERAL REGULATIONS.

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