

# G&S Titanium, Inc.      Material Safety Data Sheet

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## SECTION 1 - PRODUCT IDENTIFICATION

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MANUFACTURER'S NAME: VARIOUS

PRODUCT NAME: ZIRCONIUM METAL

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## SECTION 2 - HAZARDOUS INGREDIENTS

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CHEMICAL COMPONENTS	%*	C.A.S. NUMBER	OSHA EXPOSURE LIMITS	
			TWA(mg/m3)	STEL (mg/m3)
ZIRCONIUM (Zr)	99	7440-67-7	5	10

\*COMPOSITION VARIES WITH TYPE OF MATERIAL.

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## SECTION 3 - PHYSICAL DATA

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ZIRCONIUM METAL IS SHIPPED AS SOLID METAL FORMS.  
APPEARANCE AND ODOR IS SIMILAR TO STAINLESS STEEL.  
NOT SOLUBLE IN WATER.

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## SECTION 4 - FIRE AND EXPLOSION DATA

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SOLID METAL WILL NOT IGNITE.

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## SECTION 5 - REACTIVITY DATA

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STABILITY: STABLE

HAZARDOUS POLYMERIZATION: WILL NOT OCCUR

INCOMPATIBILITY: ZIRCONIUM METAL IS RAPIDLY DISSOLVED BY HYDROFLUORIC ACID OR HYDROFLUORIC-NITRIC ACID MIXTURES.

ABOVE 200C, ZIRCONIUM REACTS EXOTHERMICALLY WITH FLUORINE, CHLORINE, BROMINE, IODINE, AND HALOCARBONS INCLUDING CARBON TETRACHLORIDE AND CARBON TETRAFLUORIDE.

NITRYL FLUORIDE WILL INITIATE A REACTION WITH ZIRCONIUM METAL AT ROOM TEMPERATURE TO PRODUCE A GLOWING OR WHITE ICANDESCENCE.

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## SECTION 6 - HEALTH HAZARD DATA

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ROUTES OF ENTRY: (INHALATION, INGESTION, SKIN ABSORPTION) = NONE  
TARGET ORGANS: NONE  
TOXICITY DATA: ZIRCONIUM METAL IS NONTOXIC  
CORROSIVE: NO  
CARCINOGEN: NO  
ACUTE AFFECTS: NONE  
CHRONIC AFFECTS: NONE

### EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: NOT APPLICABLE  
INGESTION: NOT APPLICABLE  
SKIN CONTACT: NOT APPLICABLE  
EYE CONTACT: NORMAL PROCEDURE FOR FOREIGN OBJECT

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## SECTION 7 - SPILL OR LEAK PROCEDURES

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SPILL OR LEAK PROCEDURE: NO SPECIAL PROCEDURE

WASTE DISPOSAL: DISPOSE OF IN ACCORDANCE WITH FEDERAL, STATE, AND LOCAL REGULATIONS

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## SECTION 8 - SPECIAL PROTECTION

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SOLID FORM: USE OF GLOVES ADVISABLE TO AVOID CUTS

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## SECTION 9 - SPECIAL PRECAUTIONS

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MACHINING OF ZIRCONIUM MAY RESULT IN FINE TURNINGS OR CHIPS. ANY MATERIAL WITH A DIMENSION LESS THAN 0.0625 INCH (1/16") OR A CROSS SECTION LESS THAN 0.0078 INCH SQUARE (1/16" X 1/8"), IF PRESENT IN ANY QUANTITY, CAN BE IGNITED AND CAN SUSTAIN COMBUSTION. KEEP AWAY FROM ANY SOURCE OF IGNITION.

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