



## SAFETY DATA SHEET

<b>SECTION 1</b>	<b>IDENTIFICATION</b>
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PRODUCT NAME: **Technon<sup>®</sup> Tungsten Powder**  
 PRODUCT NUMBER: -100 Mesh, -325 Mesh  
 CAS NUMBER: 7440-33-7

**MANUFACTURER:**  
 Tungsten Heavy Powder & Parts  
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 REVISION DATE: 11/2015

**IN CASE OF EMERGENCY, CONTACT CHEM-TREC: 1-800-424-9300**

<b>SECTION 2</b>	<b>HAZARDS IDENTIFICATION</b>
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**CLASSIFICATION OF SUBSTANCE OR MIXTURE**

Pictogram



Signal Word

**Warning**

**Hazard Statements**

H313	May be harmful in contact with skin
H320	Causes eye irritation
H333	May be harmful if inhaled
H335	May cause respiratory irritation

**Precautionary Phrases**

P261	Avoid breathing dust.
P264	Wash skin thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P280	Wear protective gloves/eye protection/face protection
P303+P352	IF ON SKIN: Wash with plenty of soap and water.
P304+P340+P312	IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a poison center / doctor if you feel unwell.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.
P332+P313	If skin irritation occurs: Get medical advice/attention.
P337+P313	If eye irritation persists: Get medical advice/attention.
P363	Wash contaminated clothing before reuse.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction

## SECTION 2 HAZARDS IDENTIFICATION (continued)

**EYE CONTACT:** The dust causes slight to mild irritation of the eyes.

**SKIN CONTACT:** The dust causes slight to mild irritation of the skin.

**INHALATION:** Irritating to the respiratory tract.

**INGESTION (Acute):** None

**INGESTION (Chronic):** Large overdoses may cause nervous system disturbances, and diarrhea.

## SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

**ELEMENT SYMBOL:** W

**SYNONYMS:** Wolfram, high-density tungsten powder

CHEMICAL	CAS #	PERCENT
Tungsten	7440-33-7	100

## SECTION 4 FIRST AID MEASURES

**EYE EXPOSURE:** In case of eye contact, rinse with plenty of water and seek medical attention if symptoms persist.

**SKIN EXPOSURE:** Immediately flush with plenty of water for at least 15 minutes. Remove contaminated clothing. Wash skin using soap. Get medical attention if symptoms persist.

**INHALATION:** Remove to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get 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 by giving anything by mouth to an unconscious person.

## SECTION 5 FIREFIGHTING MEASURES

**FLASH POINT:** Not available

**AUTO IGNITION TEMPERATURE:** Not available

**FLAMMABLE LIMITS:** Not available

**EXTINGUISHING MEDIUM:** Cover burning material with an inert powder, such as dry sand or limestone, to exclude oxygen. Fine dust generated during grinding operations may ignite if allowed to accumulate and subjected to an ignition source. Tungsten rod, wire and fabricated products are not a fire hazard.

**SPECIAL FIRE FIGHTING PROCEDURES:** For a fire confined to a small area, use a respirator approved for toxic dusts and fumes. For a large fire involving this material, firefighters must wear approved, self-contained breathing apparatus..

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** Dust may present a fire or explosion hazard under favoring conditions of particle size, dispersion and strong ignition source. However, this is not expected to be a problem under normal handling conditions. Technon<sup>®</sup> powder does not generate any hazardous decomposition products.

## SECTION 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS:

**Respiratory Protection:** Avoid breathing dust. Use an appropriate NIOSH-approved respirator when airborne dust concentrations exceed the Threshold Limit Value (TLV). See (29CFR 1910.134). Use local exhaust ventilation, which is adequate to limit personal exposure to levels, which do not exceed the TLV. If such equipment is not available, use respirators as specified above.

**Skin Protection:** Rubber gloves should be worn.

**Eye Protection:** Safety goggles or glasses are recommended.

**ENVIRONMENTAL PRECAUTIONS:** Tungsten is environment friendly, so no hazardous environmental precautions exist.

**METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP:** Ventilate area through non-mechanical means (e.g. opening a window). Take care not to raise dust. Use non-sparking tools. Clean up using methods, which avoid dust, generation such as vacuuming (with appropriate filter to prevent airborne dust levels which exceed the TLV), wet dust mop or wet clean up. If airborne dust is generated, use an appropriate NIOSH-approved respirator.

## SECTION 7 HANDLING AND STORAGE

**PRECAUTIONS FOR SAFE HANDLING:** Wear appropriate personal protective equipment. Use with adequate ventilation. Wash thoroughly after handling, before eating or smoking, and at the end of the work shift. Keep container closed when not in use. Avoid formation of dust. Do not shake clothing or other items to remove dust; use a vacuum instead.

**CONDITIONS FOR SAFE STORAGE:** Store in cool, dry, and well-ventilated, controlled area. Keep away from incompatible materials.

## SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

Component	CAS #	Typical Weight (%)	Exposure Limits	Basis	Entity
Tungsten	7440-33-7	100	5 mg/m <sup>3</sup>	TLV	ACGIH
			10 mg/m <sup>3</sup>	STEL	ACGIH
			5 mg/m <sup>3</sup>	PEL	OSHA
			5 mg/m <sup>3</sup>	REL	NIOSH
			10 mg/m <sup>3</sup>	STEL	NIOSH

**STEL:** Short Term Exposure Limit during x minutes.  
**REL:** Recommended Exposure Limit

**TLV:** Threshold Limit Value over 8 hours of work.  
**PEL:** Permissible Exposure Limit

**EYE PROTECTION:** Wear chemical safety glasses or goggles.

**SKIN PROTECTION:** Wear nitrile or rubber gloves, apron, or lab coat.

**RESPIRATOR:** Use an approved respirator

**VENTILATION:** Provide local exhaust, preferably mechanical.

**ADDITIONAL PROTECTION:** Provide eyewash station, and washing facilities accessible to areas of use and handling.

## SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

**COLOR AND FORM:** Dark gray powder

**MELTING POINT:** 3410°C (6170° F)

**BOILING POINT:** 5660°C (10220° F)

**UPPER/LOWER FLAMMABILITY LIMITS:** N/A

**ODOR:** None

**MOLECULAR WEIGHT:** 183.85

**RELATIVE DENSITY:** 11g/cc ± 0.5 g/cc (0.4 lb /inch<sup>3</sup> ± 0.02 lbs/inch<sup>3</sup>.)

**SOLUBILITY:** Insoluble

## SECTION 10 STABILITY AND REACTIVITY

**STABILITY:** Stable

**HAZARDOUS POLYMERIZATION:** Will not occur

**CONDITIONS TO AVOID:** Sparks

**INCOMPATIBILITY:** Strong oxidizing agents and halogens

**DECOMPOSITION PRODUCTS:** Tungsten Oxide

## SECTION 11 TOXICOLOGICAL DATA

**ACUTE TOXICITY:** Standard Draize test (skin) – rabbit – 500mg / 24h. Standard Draize test (eye) – rabbit 500mg / 24h.

LD<sub>50</sub> Intraperitoneal – rat – 5gm/kg, LD<sub>50</sub> – rabbit & dog – >20000mg tungsten metal/kg body weight

**CARCINOGENIC EFFECTS:** No components of this product present at levels greater than or equal to 0.1% is identified as a carcinogen.

**MUTAGENIC EFFECTS:** Not available

**TETRATOGENIC EFFECTS:** Not available

**REPRODUCTIVE EFFECTS:** Not available.

**RTECS:** YO7175000

To the best of our knowledge, the toxicological effects of tungsten have not been extensively studied.

## SECTION 12 ECOLOGICAL DATA

**MOBILITY/DEGRADABILITY:** Will convert to tungsten oxide during prolonged contact with water.

**ECOTOXICITY:** Tungsten is not ecotoxic. Generally not hazardous to water

## SECTION 13 DISPOSAL CONSIDERATIONS

This material must be disposed of in accordance with any and all applicable local, state and federal regulations. Material intended for disposal may be sold for scrap or reclamation.

## SECTION 14 TRANSPORTATION DATA

**D.O.T. TRANSPORTATION DATA:** (49 CFR 172.101)

**HAZARD CLASS:** None

**LABEL:** No class label assigned.

**SHIPPING NAME:** Tungsten Powder

**PACKING GROUP:** None

**MARINE POLLUTANT:** No

## SECTION 15 REGULATORY INFORMATION

**DOT:** Not regulated

**SARA (TITLE III):** Under applicable definitions, this material may meet the criteria for a delayed (chronic) health hazard.

**SARA (SECTION 313):** Tungsten is not subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

**CALIFORNIA PROP. 65:** Not Listed

**TSCA:** Listed in the TSCA inventory

**DSCL (EEC):** Listed on the DSCL inventory

**RCRA HAZARDOUS WASTE NUMBER:** Not Listed

## SECTION 16 OTHER INFORMATION

**REASON FOR ISSUE:** To comply with the new Globally Harmonized System of Classification & Labelling of Chemicals (GHS)

**PREPARED BY:** G. Sery

**APPROVED BY:** J. Sery

**APPROVED DATE:** November 18, 2015

**SUPERSEDES DATE:** April 10, 2014

**DISCLAIMER:** The information herein is believed to be accurate and reliable as of the date compiled. However, Tungsten Heavy Powder & Parts makes no representation, warranty, or guarantee of any kind with respect to the information in this document or any use of the product based on the information.

**DATE LAST REVISED:** November 18, 2015