

# MATERIAL SAFETY DATA SHEET

24 HR. EMERGENCY PHONE # CHEM-TREC 1-800-424-9300

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## SECTION 1 Product Identification

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**CHEMICAL NAME:** Ruthenium powder  
**CAS #:** 7440-18-8  
**FORMULA:** Ru  
**SYNONYM:** none

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## SECTION 2 Composition and Information on Ingredients

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INGREDIENT:	CAS #	%	ACGIH (TWA)	OSHA (PEL)
Title Compound	7440-18-8	100	no data	no data

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## SECTION 3 Hazards Identification

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**EMERGENCY OVERVIEW:** Inhalation hazard as a fine dust or fume.  
**PRIMARY ROUTES OF EXPOSURE:** Inhalation (of dust or fume), ingestion  
**EYE CONTACT:** The dust may cause slight to mild irritation of the eyes.  
**SKIN CONTACT:** The dust may cause slight to mild irritation of the skin.  
**INHALATION:** Hazard associated with inhalation of fine dust or fume. May be irritating to nasal cavity and respiratory tract.  
**INGESTION:** No specific information is available on the physiological effects of ingestion.  
**CHRONIC HEALTH EFFECTS:** No information available on health effects of prolonged or repeated exposure.  
**ACUTE HEALTH EFFECTS:** Dust may be irritating to skin, eyes and respiratory tract.

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## SECTION 4 First Aid Measures

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**EYE EXPOSURE:** Immediately flush the eyes with copious amounts of water for at least 15 minutes. Assure flushing under eyelids. A victim may need assistance in keeping their eyelids open. Get immediate competent medical attention.  
**SKIN EXPOSURE:** Wash affected area with water. Remove contaminated clothes if necessary. Seek medical assistance if irritation persists.  
**INHALATION:** Remove the victim to fresh air. Closely monitor the victim for signs of respiratory problems, such as difficulty in breathing, coughing, wheezing, or pain. In such cases seek immediate medical assistance.  
**INGESTION:** Seek medical assistance immediately. Keep the victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

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## **SECTION 5                      Firefighting Measures**

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**FLASH POINT:** not applicable

**AUTO IGNITION TEMPERATURE:** not applicable

**EXPLOSION LIMITS:** not applicable

**EXTINGUISHING MEDIUM:** Dry chemical or Class D metal fire agent

**SPECIAL FIREFIGHTING PROCEDURES:** If involved in a fire, fire fighters should be equipped with a NIOSH approved positive pressure self-contained breathing apparatus and full protective clothing.

**HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS:** None

**UNUSUAL FIRE OR EXPLOSION HAZARDS:** Flammable solid. Dust may form explosive mixtures with air. May self-ignite if wetted with alcohols or related organics.

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## **SECTION 6                      Accidental Release Measures**

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**SPILL AND LEAK PROCEDURES:** Small spills can be mixed with vermiculite or sodium carbonate and swept up.

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## **SECTION 7                      Handling and Storage**

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**HANDLING AND STORAGE:** Store material in a tightly sealed container. Handle fine powders in a well ventilated area.

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## **SECTION 8                      Exposure Controls and Personal Protection**

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**EYE PROTECTION:** Always wear approved safety glasses w/side shields, or safety goggles, face shield when handling a chemicals substance in the laboratory.

**SKIN PROTECTION:** Chemical-resistant.

**VENTILATION:** If possible, handle the material in an efficient fume hood.

**RESPIRATOR:** If in form of fine dust and ventilation is not available a respirator should be worn. The use of respirators requires a Respirator Protection Program to be in compliance with 29 CFR 19-10.134.

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## **SECTION 9                      Physical and Chemical Properties**

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**COLOR AND FORM:** -200 mesh bluish-gray powder

**MOLECULAR WEIGHT:** 101.07

**MELTING POINT (DEG. C.):** not applicable

**BOILING POINT:** 3900<sup>o</sup>

**VAPOR PRESSURE:** not applicable

**SPECIFIC GRAVITY:** 12.3

**SOLUBILITY IN WATER:** insoluble

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## **SECTION 10                    Stability and Reactivity**

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**STABILITY:** air and moisture stable solid

**HAZARDOUS POLYMERIZATION:** no hazardous polymerization

**CONDITIONS TO AVOID:** none

**INCOMPATIBILITY:** Halogens, hydrogen peroxide, chlorates and hypochlorites, alcohols

**DECOMPOSITION PRODUCTS:** none

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## **SECTION 11 Toxicological Information**

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**RTECS DATA:** No information available in the RTECS files.

**MUTAGENIC EFFECTS:** no data

**TETRATOGENIC EFFECTS:** no data

**CARCINOGENIC EFFECTS:** no data

To the best of our knowledge the toxicological effects of this compound have not been fully investigated.

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## **SECTION 12 Ecological Information**

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**ECOLOGICAL INFORMATION:** No information available

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## **SECTION 13 Disposal Considerations**

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**DISPOSAL:** Dispose of in according to local state and federal regulations.

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## **SECTION 14 Transportation Information**

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Metal powder, Flammable, n.o.s., Class 4.1, UN 3089, PG III

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## **SECTION 15 Regulatory Information**

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**TSCA:** Listed in the TSCA inventory

**SARA (TITLE 313):** Title compound not listed

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## **SECTION 16 Other Information**

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