



SECTION 1: Product Identification

Chemical Name: Ruthenium, 5% on alumina

Product Number: 402

CAS Registry Number: 7440-18-8

Formula: Ru on alumina

EINECS Number: 231-127-1

Chemical Family: supported metal catalyst

Synonym: none

SECTION 2: Composition and Information on Ingredients

Ingredient	CAS Number	Percent	ACGIH (TWA)	OSHA (PEL)
Title Compound	7440-18-8	5	no data	no data
alumina	1344-28-1	95	10mg/m3 (as Al ₂ O ₃)	15mg/m3 (as total Al dust)

SECTION 3: Hazards Identification

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.

Acute Health Effects: Dust may be irritating to skin, eyes and respiratory tract.

Chronic Health Effects: No information available on health effects of prolonged or repeated exposure.

NTF: No

IARC: No



OSHA: No

SECTION 4: First Aid Measures

Eye Exposure: Immediately flush the eyes with copious amounts of water for at least 10-15 minutes. A victim may need assistance in keeping their eye lids open. Get immediate medical attention.

Skin Exposure: Wash the 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 attention immediately. Keep victim calm. Give the victim water (only if conscious). Induce vomiting only if directed by medical personnel.

SECTION 5: Fire Fighting Measures

Flash Point: not applicable

Autoignition Temperature: not applicable

Explosion Limits: not applicable

Extinguishing Medium: None. Material is non-flammable.

Special Fire Fighting Procedures: No special fire fighting procedures required for this material.

Hazardous Combustion and Decomposition Products: None

Unusual Fire or Explosion Hazards: No unusual fire or explosion hazards.

SECTION 6: Accidental Release Measures

Spill and Leak Procedures: Small spills can be mixed with vermiculite or sodium carbonate and swept up.

SECTION 7: Handling and Storage

Handling and Storage: Store in a tightly sealed container. Handle fine powders in a well-ventilated area.



Storage:

SECTION 8: Exposure Controls and Personal Protection

Eye Protection: Always wear approved safety glasses when handling a chemical substance in the laboratory.

Skin Protection: Wear protective clothing and gloves.

Ventilation: Material may form or contain a fine dust that may become airborne during handling. If possible, handle the material in an efficient fume hood.

Respirator: If handling material in the form of a 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 1910.134.

Additional Protection: No additional protection required

SECTION 9: Physical and Chemical Properties

Color and Form: powdr.

Molecular Weight: not applicable

Melting Point: no data

Boiling Point: no data

Vapor Pressure: not applicable

Specific Gravity: no data

Odor: none

Solubility in Water: insoluble

SECTION 10: Stability and Reactivity

Stability: Air and moisture stable solid.

Hazardous Polymerization: no hazardous polymerization

Conditions to Avoid: If used as a catalyst, keep spent catalyst away from combustibles. They could ignite.

Incompatibility: none

Decomposition Products: none



SECTION 11: Toxicological Information

RTECS Data:	No information available in the RTECS files. Alumina: Intrapleural (rat) TDLo: 90 mg/kg; Implant (rat) TDLo: 200mg/Kg
Carcinogenic Effects:	Alumina: no definitive data
Mutagenic Effects:	No data available
Tetratogenic Effects:	No data available

SECTION 12: Ecological Information

Ecological Information:	No data available
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SECTION 13: Disposal Considerations

Disposal:	Dispose of according to local, state and federal regulations.
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SECTION 14: Transportation

Shipping Name (CFR):	Non-hazardous
Hazard Class (CFR):	NA
Additional Hazard Class (CFR):	NA
Packaging Group (CFR):	NA
UN ID Number (CFR):	NA
Shipping Name (IATA):	Non-hazardous
Hazard Class (IATA):	NA
Additional Hazard Class (IATA):	NA
Packaging Group (IATA):	NA
UN ID Number (IATA):	NA

SECTION 15: Regulatory Information

TSCA:	Listed in the TSCA inventory
SARA (Title 313):	Title compound not listed
Second Ingredient:	none



Third Ingredient: none