



SECTION 1: Product Identification

Chemical Name:	Ruthenium, 0.5% on alumina
Product Number:	408
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	0.5	no data	no data
alumina	1344-28-1	99.5	10mg/m3 (as Al2O3)	15mg/m3 (as total Al dust)

SECTION 3: Hazards Identification

Emergency Overview:	No particular hazard associated with this material. May be irritating to skin, eyes and respiratory tract.
Primary Routes of Exposure:	Ingestion, inhalation
Eye Contact:	May cause slight to mild irritation of the eyes.
Skin Contact:	May cause slight to mild irritation of the skin.
Inhalation:	May be irritating to the nose, mucous membranes and respiratory tract.
Ingestion:	No specific information is available on the physiological effects of ingestion.
Acute Health Effects:	May be irritating to skin, eyes and respiratory tract.
Chronic Health Effects:	No information available on health effects of prolonged or repeated exposure.
NTP:	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.

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: 1/8" x 1/8" pellets

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	none
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
Teratogenic Effects:	No data available
SECTION 12: Ecological Information	
Ecological Information:	No data available
SECTION 13: Disposal Considerations	
Disposal:	Dispose of according to local, state and federal regulations.
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	NA



(IATA):

SECTION 15: Regulatory Information

TSCA: Listed in the TSCA inventory

SARA (Title 313): Title compound not listed

Second Ingredient: none

Third Ingredient: none