



SAFETY DATA SHEET

ProChemOnline.com



SECTION 1 PRODUCT AND COMPANY INFORMATION

PRODUCT NAME: **Ruthenium, powder**

PRODUCT NUMBER: 3055

CAS NUMBER: 7440-18-8

MANUFACTURER:

Prochem, Inc.
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Rockford, IL 61109

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

SECTION 2 HAZARDS IDENTIFICATION

CLASSIFICATION OF SUBSTANCE OR MIXTURE

Pictogram



Signal Word

Danger

Hazard Statements

H228	Flammable solid.
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Precautionary Phrases

P210	Keep away from heat/sparks/open flames/hot surfaces.
P240	Ground/bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P370+P378	In case of fire: Use dry sand, dry chemical or alcohol-resistant foam for extinction.

HMIS CLASSIFICATION:

Health: 1 Fire: 2 Reactivity Hazard: 1

NFPA RATING:

Health: 1 Flammability: 2 Reactivity Hazard: 1

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 nasal cavity and respiratory tract.

INGESTION: May be harmful if swallowed.

SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS

Formula: Ru

Molecular Weight: 101.07

CHEMICAL NAME	CAS#	%
Ruthenium	7440-18-8	100

SECTION 4 FIRST AID MEASURES

EYE EXPOSURE: Immediately flush the eyes with copious amounts of water for at least 15 minutes. A victim may need assistance in keeping their eyelids 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 to fresh air and keep at rest. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention if necessary.

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 FIREFIGHTING MEASURES

FLASH POINT: Not available

AUTO IGNITION TEMPERATURE: Not available

EXPLOSION LIMITS: Not available

EXTINGUISHING MEDIUM: Special powder for metal fires. Do not use water.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained, approved breathing apparatus and full protective clothing, including eye protection and boots.

HAZARDOUS COMBUSTION AND DECOMPOSITION PRODUCTS: Ruthenium oxides

SECTION 6 ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS: Wear all appropriate equipment when using this material. Ensure adequate ventilation. Keep away from sources of ignition.

ENVIRONMENTAL PRECAUTIONS: Prevent spillage from entering drains or allowing to be released into the environment.

METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP: Small spills can be mixed with vermiculite or sodium carbonate and swept up. Do not flush with water or aqueous agents.

SECTION 7 HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: Wear appropriate personal protective equipment. Avoid formation of dust. Keep away from sources of ignition-No smoking. Ensure adequate ventilation. Take measures to prevent the build up of electrostatic charge.

CONDITIONS FOR SAFE STORAGE: Store in cool, dry, and well-ventilated area. Do not store together with acids. Store away from oxidizing agents.

SECTION 8 EXPOSURE CONTROLS AND PERSONAL PROTECTION

EXPOSURE CONTROLS: Contains no substances with occupational exposure limit values.

EYE PROTECTION: Wear chemical safety glasses or goggles and face shield.

SKIN PROTECTION: Wear nitrile or rubber gloves, and a complete suit protecting against chemicals.

VENTILATION: Provide local exhaust, preferably mechanical.

RESPIRATOR: Use an approved respirator.

ADDITIONAL PROTECTION: Provide eyewash stations, quick-drench showers and washing facilities accessible to areas of use and handling.

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES

COLOR AND FORM: Light gray powder

ODOR: None

MOLECULAR WEIGHT: 101.07

SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES (Cont.)

BOILING POINT: 3900°C

MELTING POINT: 2310°C

SPECIFIC GRAVITY: 12.45 gm/ml

VAPOR DENSITY: No data available

SOLUBILITY: Insoluble

SECTION 10 STABILITY AND REACTIVITY

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur

CONDITIONS TO AVOID: Heat, flames, and sparks. Extremes of temperature and direct sunlight.

INCOMPATIBILITY: Oxidizing agents, acids, halogens, hydrogen peroxide, chlorates, hypochlorites, and alcohols.

DECOMPOSITION PRODUCTS: Ruthenium oxide

SECTION 11 TOXICOLOGICAL DATA

ACUTE TOXICITY: Not available

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

MUTAGENIC EFFECTS: Not available

TETRATOGENIC EFFECTS: Not available

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

SECTION 12 ECOLOGICAL DATA

No data available.

SECTION 13 DISPOSAL CONSIDERATIONS

Dispose of in according to local, state, and federal regulations.

SECTION 14 TRANSPORTATION DATA

DOT: UN3089

Metal powders, flammable, n.o.s.

(Ruthenium)

CLASS 4.1

PG III

IATA: UN3089

Metal powder, flammable, n.o.s.

(Ruthenium)

CLASS 4.1

PG III

Marine Pollutant: No

SECTION 15 REGULATORY INFORMATION

TSCA: Listed in the TSCA inventory

SARA 302/304: Not Listed

SARA 311/312: Fire Hazard

SARA (TITLE 313): Not Listed

CALIFORNIA PROP. 65: Not Listed

WHMIS CANADA: Class B-4: Flammable solid

NEW JERSEY RIGHT TO KNOW COMPONENTS: Ruthenium

PENNSYLVANIA RIGHT TO KNOW COMPONENTS: Ruthenium

SECTION 16 OTHER INFORMATION

DISCLAIMER: The information herein is believed to be accurate and reliable as of the date compiled. However, Prochem, Inc. 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 PREPARED: 10/14