



(EXPORT) RAPIDFIRE™ CUTTING ROD IGNITERS  
SMALL QUANTITY SHIPPING – 5 BOXES OR LESS PER STEEL PAIL OVERPACK

### Section 1: Identification

Product Name:	(Export) RAPIDFIRE™ Cutting Rod Ignition Cartridge	*Small quantity shipping – 5 boxes or less per steel pail overpack*
MSDS Issue Date:	September 1, 2018	
Product Code:	PC/RFCX-10	
CAS Number(s):	See section 3	
Product Usage:	Non-Electric Ignition of Exothermic Cutting Torch	
Manufacturer:	<b>Broco, Inc.</b> <b>400 S. Rockefeller Ave.</b> <b>Ontario, CA 91761 USA</b>	<b>Phone:</b> 909-483-3222 <b>Fax:</b> 909-483-3233 <b>E-Mail:</b> <a href="mailto:sales@brocoinc.com">sales@brocoinc.com</a> <b>Web Site:</b> <a href="http://www.broco-rankin.com">www.broco-rankin.com</a>
Emergency Response & Training Solutions		
1-800-924-6804	1-440-349-2700	
CIN #: 3730	ECCN #: IC992	RFC Only Export

### Section 2: Hazard(s) Identification

This section covers the materials from which this product is manufactured.

The term “hazardous” in “Hazardous Materials” should be interpreted as a term required and defined in OSHA Hazard Communication Standard (29 CFR Part 1910.1200).

(Export) RapidFire cutting rod igniters consist of a small quantity of oxygen reactive metal powder contained within a glass vial, which in turn is fixed within a steel cylinder. A removable safety clip and two plastic bushings protect the material from unintentional exposure/activation.

Classification of the Substance or Mixture:

PROPER SHIPPING NAME:	DANGEROUS GOODS IN APPARATUS (METAL CATALYST, DRY)
HAZARD CLASS:	9
ID#:	UN3363
DOT LABEL:	CARGO AIRCRAFT (AS PG II)
PACKAGE MARKS:	DANGEROUS GOODS IN APPARATUS, UN3363

Hazard Statements:

- Oxygen reactive; catches fire spontaneously if exposed to air
- May cause skin reaction through contact
- May cause eye irritation
- Causes damage to organs through prolonged or repeated exposure: Inhalation
- Suspected of causing cancer

Precautionary Statements:

- Avoid breathing dust/fume/gas/mist/vapors/spray
- Wear protective gloves/protective clothing/eye protection/face protection
- If on skin, wash with plenty of soap and water
- In case of contact with eyes, rinse immediately with plenty of water and seek medical attention
- In case of insufficient ventilation, wear suitable respiratory equipment

### Section 3: Composition / Information on Ingredients

ACTIVE MATERIAL:	METAL CATALYST, DRY		
CONTAINS ONE OR MORE OF THE FOLLOWING:	CAS	EC	WEIGHT %
STEEL STRIP	N/A	N/A	>70%
NICKEL POWDER, NON-STABILIZED	7440-02-0	231-111-4	<20%
IRON POWDER, NON-STABILIZED	7439-89-6	231-096-4	<15%
ALUMINUM, COMPOUNDED	12003-78-0	234-439-6	<10%
<b>WARNING:</b> This product may contain or may produce a chemical known to the State of California to cause cancer. (California Health & Safety Code 25249.5 et seq.)			

#### Section 4: First Aid Measures

General information:	Immediately remove any clothing contaminated by this product.
Signs and symptoms:	Skin – May cause skin irritation.
Medical conditions generally aggravated by exposure:	N/A

Emergency and first aid procedures:

After inhalation: Supply fresh air and be sure to call a doctor. Remove patient from exposure, keep warm and at rest. In case of unconsciousness, place patient stably in the recovery position for transportation.

After skin contact: Remove contaminated clothing immediately. Immediately drench affected skin with plenty of water, then wash with soap and water and rinse thoroughly. If skin irritation continues, consult a doctor.

After eye contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Obtain medical attention.

After swallowing: Do not induce vomiting. Immediately call for medical help. Provided patient is conscious, rinse out mouth with water then give patient 200-300 ml of water to drink.

Contact may cause allergic reactions.

Most important symptoms and effects, both acute and delayed:

- May cause eye irritation
- Skin contact may cause irritation
- May cause irritation to the respiratory system

#### Section 5: Firefighting measures

Metal Catalyst is self-heating in air. When exposed to air, it may attain heat quickly and provide a combustion source for exposed combustible materials. It is highly reactive with organic compounds when heated or exposed to oxidizing agents. Some hydrogen may be evolved during shipping or storage. Open flames and smoking are prohibited.

Extinguishing Media: CO<sub>2</sub>, foam to deactivate and quench, extinguishing powder, dry sand.

Special Hazards Arising from the Substance or Mixture: May fire off toxic fumes in a fire, iron oxides. Traces of other toxic gases (toxic metal oxide smoke) cannot be excluded.

#### Section 6: Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures:

- Ensure adequate ventilation.
- Avoid inhalation of dusts.
- Avoid contact with skin and eyes.
- Wear suitable protective clothing and gloves. (See Section 8)
- Contaminated clothing should be thoroughly cleaned.

Environmental Precautions:

- Do not allow to enter drains, sewers or watercourses.

Methods and Material for Containment and Cleanup:

- Sweep up carefully.
- Transfer to a metal or heat resistant container for disposal.
- Wash spill area with soapy water.

Reference to Other Sections:

- Personal Protection: See Section 8.

## Section 7: Handling and Storage

Spontaneously Combustible in Presence of Oxygen

Stability: Unstable

Conditions to Avoid: Air-sensitive material. Some hydrogen may be evolved during storage.

Materials to Avoid: Reacts with strong acids to liberate hydrogen. Reacts vigorously with strong oxidizing agents.

Hazardous Decomposition Byproducts: Hydrogen may evolve.

Hazardous Polymerization: Will not occur.

Precautions to be taken in Handling and Storing:

- Keep away from heat, sparks, and open flames.
- Keep away from flammables and/or combustibles.
- Avoid inhalation of dusts.
- Avoid contact with skin and eyes.
- Wear suitable protective clothing, eye protection and gloves. (See Section 8)

Conditions for Safe Storage, Including any incompatibilities:

- Keep away from flammables and/or combustibles.
- Keep only in the original container.

Shipping/Storage:

- Inner Packaging: Bags, nitrogen filled heat-sealed plastic/foil laminate, each containing not more than five (5) devices.
- Outer Packaging: UN 1A2 steel pail or drum with sufficient dunnage to prevent movement during transport.
- Not to exceed 5 boxes (50 devices) per steel pail overpack.

Specified End Use: Non-electric ignition of exothermic cutting torch.

## Section 8: Exposure Controls / Personal Protection

Exposure Limits:

Components of mixture	CAS Number	EC	LTEL (8hr TWA mg/m <sup>3</sup> )
Nickel Powder, Non-Stabilized	7440-02-0	231-111-4	0.5
Aluminum, Compound	12003-78-0	234-439-6	10 (Inhalable Dust) 4 (Respirable Dust)

Personal Protection:

- Eye/Face Protection: Goggles giving complete protection to eyes.
- Skin Protection: Protective gloves.
- Respiratory Protection: In case of insufficient ventilation, wear suitable respiratory equipment.
- Protective Clothing: Light protective clothing, boots, and gloves.

## Section 9: Physical and Chemical Properties

Physical State	Grey to black powder, dull finish
Odor	No odor
Odor Threshold	Not applicable
Specific Gravity (H <sub>2</sub> O=1)	Approx. 4
Solubility	Insoluble in water

## Section 10: Stability and Reactivity

Reactivity:	Spontaneously flammable in air.
Chemical stability:	Stable under normal conditions.
Possibility of hazardous reactions:	May react vigorously with acids creating explosion hazard.
Conditions to avoid:	Keep away from heat and sources of ignition (flammables and combustibles).
Incompatible materials:	Strong oxidizing agents, acids.
Hazardous Decomposition Product(s):	Heat. May give off toxic fumes in a fire, metal oxides.

## Section 11: Toxicological Information

Acute toxicity:	
Ingestion:	LD50 (oral/rat): > 9000 mg/kg (Nickel)
Inhalation:	LC50 (inhalation/rat): 0.015 mg/m <sup>3</sup> /8h (Nickel)
Skin Contact:	May cause burns.
Eye Contact:	May cause burns.

Skin corrosion/irritation: Skin contact may burn and cause irritation.

Serious eye damage/irritation: May burn and cause eye irritation.

Respiratory or skin sensitization: May cause sensitization by skin contact.

Mutagenicity: No information available.

Carcinogenicity: Category 2: Suspected of causing cancer.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: Causes damage to organs through prolonged or repeated exposure: Inhalation.

Aspiration hazard: Negative.

Other information: No information available.

## Section 12: Ecological Information

Toxicity:	LC50 (Fish)>100 mg/l/96h (Nickel)
Persistence and degradability:	Not readily biodegradable.
Bio accumulative potential:	The substance has high potential for bioaccumulation.
Mobility in soil:	No information available.
Results of PBT and vPvB assessment:	No information available.
Other adverse effects:	No information available.

## Section 13: Disposal Consideration

Waste Disposal Method: Expose to air under controlled conditions. Material will burn or otherwise oxidize and become deactivated. Residue consists of iron and nickel metal oxides which are not hazardous and may be discarded in accordance with local, state and national legislation.

Do not empty into drains; dispose of this material and its container in a safe way.

Non-reacted material to be disposed of as hazardous waste. Disposal should be in accordance with local, state and national legislation.

## Section 14: Transport Information

UN Number:	UN3363
Proper Shipping Name:	Metal Catalyst, Dry
Transport hazard class(es):	9
Packing Group:	II
Environmental hazards:	Not classified as a Marine Pollutant
Special precautions for user:	Catches fire spontaneously if exposed to air

Transport in bulk according to Annex II of MARPOL73/78 and the IBD Code: Not applicable

## Section 15: Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture:

United States 29 CFR 1910.1200(g), 'Safety data sheets'; EC Regulation (EC) No. 1907/2006, Regulation (EC) No. 1272/2008 (CLP), Directive 67/548/EEC & Directive 1999/45/EC.

## Section 16: Other Information

CAS = Chemical Abstracts Service;  
CNS = Central Nervous System;  
EINECS = European Inventory of Existing Commercial Chemical Substances;  
EC50 = Effective Concentration 50%;  
IARC = International Agency for Research on Cancer;  
IC50 = Inhibitory Concentration 50%;  
LC50 = Lethal Concentration 50%;  
LD50 = Lethal Dose 50%;  
LTEL = Long Term Exposure Limit;  
STEL = Short Term Exposure Limit;  
TWA = Time Weighted Average;

### References:

IUCLID Dataset: Nickel (19/02/2000) (<http://ecb.jrc.ec.europa.eu> 24/01/2010)

### Disclaimer:

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