

MATERIAL SAFETY DATA SHEET in accordance with 1907/2006/CE

## 1 – IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY

**Product Name:** ICP 913

**Revision:** 12 November 2012

**N° de FDS** 1849-7

**Date of issue:** 05 October 2010

**Company:**

Calvo Sealing, S.L.  
Calle Galileo, nº 8 (P. I. Can Estella)  
08635 San Esteve de Sesrovires  
Barcelona - Spain  
Tel: +34 937715910  
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**Supplier:**

**Use:**

Braided packing manufactured from high quality carbon fiber yarn with inconel wire and running-in graphite lubricant. An exceptional packing combining carbon and Inconel to produce a product for sealing valve glands in high pressure and high temperature applications above 430°C (806°F) and pH 0-14. Suitable for a wide range of applications as petrochemical plants, power plants, refineries, boilers, chemical processes, steel industry, etc.

## 2 – HAZARDS IDENTIFICATION

Non expected in industrial use.

### 3 - COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous Ingredients	% wt	CAS nº	EC nº	Symbol	R-Phrases
Graphite / Carbon	90-95	7782-42-5	231-955-3	-	-
Silica (Quartz)	< 1	14808-60-7	238-878-4	-	-
Molybdenum Trioxide	1-5	1313-27-5	215-204-7	Xn	36/37-40

### 4 – FIRST AID MEASURES

**Inhalation:** If overcome by decomposition fumes, remove to fresh air. If not breathing, administer artificial respiration. Contact physician.

**Skin contact:** Wash skin with soap and water. Contact physician if irritation persists.

**Eye Contact:** Flush eyes for at least 15 minutes with large amounts of water. Contact with physician if irritation persists.

**Ingestion:** Not applicable

**Advice to physician:** Treat symptoms

## 5 – FIRE-FIGHTING MEASURES

**Extinguishing Methods:** Carbon Dioxide, dry chemical, foam or water spray.

**Unusual Fire and Explosion Hazards:** None known

**Special Fire Fighting Measures:** None

**HAZCHEM Emergency Action Code:** 2 Z

## 6 – ACCIDENTAL RELEASE MEASURES

**Personal Precautions:** Utilize exposure controls and personal protection as specified in Section 8.

**Environmental Precautions:** No special requirements.

**Methods of Clean Up:** No special required. Nontoxic.

## 7 – HANDLING AND STORAGE

**Handling:** Avoid breathing dust during removal, drilling, grinding, sawing or sanding. Utilize exposure controls and personal protection as specified in Section 8. Accumulations of graphite may cause shorting of electrical circuits.

**Storage:** Store in cool, dry area. Exposure to heat, humidity, ozone or light may shorten its unlimited shelf life.

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## 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous Ingredients	OSHA		ACGIH TLV		AUSTRALIA (LPP)	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Graphite / Carbon	tot resp	15 5	(resp)	2	(resp)	3
Silica (Quartz)	(resp) (total)	10 (%SiO <sub>2</sub> +2) 30 (%SiO <sub>2</sub> +2)	(resp)	0,025	-	0,1
Molybdenum Trioxide	-	15	-	10 (resp)3	-	10

**Respiratory Protection:** Not normally needed. If exposure limits is exceeded, use approved dust respirator.

**Ventilation:** If using under extreme heat, use local exhaust.

**Protective Gloves:** Use appropriate gloves.

**Eye Protection:** Recommended safety glasses.

**Other:** Long sleeves, long pants and good personal hygiene to minimize skin contact.

## 9 – PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid	Odour	Odorless
Colour	Black	Vapour pressure at 20°C	None
Initial bolting point	Not applicable	% aromatics by weight	None
Melting point	Not applicable	pH	Not applicable
% volatile (by volume)	Not applicable	Weight per volume	Not applicable
Flash point	Not applicable	Density	Not applicable
Method	None	Coefficient (water/oil)	Not applicable
Viscosity	Not applicable	Vapour density (air =1)	Not applicable
Autoignition temp.	Not applicable	Rate of evaporation (ether =1)	Not applicable
Explosion limits	Not applicable	Solubility in water	Insoluble

## 10 – STABILITY AND REACTIVITY

**Stability:** Stable

**Hazardous polymerization:** Will not occur.

**Hazardous Decomposition Products:** Carbon Monoxide, Carbon Dioxide, Sulfur Dioxide and other toxic fumes.

**Conditions to avoid:** Temperatures above to 650°C (1200°F).

**Materials to avoid:** Strong oxidizers like liquid Chlorine and concentrated Oxygen.

## 11 – TOXICOLOGICAL INFORMATION

**Primary Route of Exposure Under:** Inhalation, skin and eye contact. Personnel with pre-existing chronic respiratory impairments may be aggravated by exposure.

**Acute Effects:** Graphite, carbon and molybdenum Trioxide may cause mechanical irritation of the skin, eyes and nasal passages.

**Chronic effects:** Limited evidence of a carcinogenic effect (Molybdenum Trioxide). Repeated inhalation of nuisance dust in excess of exposure limits over an extended period of time may result in injury to the lungs. Symptoms can include cough, shortness of breath and decrease in pulmonary function.

**Other information:** The International Agency for Research on Cancer (IARC) and the National Toxicology Program (NTP) have classified inhaled silica as a human carcinogen.

## 12 – ECOLOGICAL INFORMATION

Ecotoxicological data have not been determined specifically for this product. The information given below is based on a knowledge of the components and the ecotoxicology of similar substances.

**Mobility:** Solid. Insoluble in water. In determining environmental mobility, consider the product's physical and chemical properties (see Section 9).

**Degradability:** Graphite, Carbon, Silica, Molybdenum Trioxide: inorganic substances, exist in nature.

**Accumulation:** Not determined

**Ecotoxicity:** Not determined

## 13 – DISPOSAL CONSIDERATIONS

Check local, state and national/federal regulations and company with the most stringent requirement. This product is classified as a hazardous waste according to 91/689/EEC.

**EWC Code:** 06 13 99

## 14 – TRANSPORT INFORMATION

<b>TDG:</b>	Nonhazardous, not regulated
<b>IMDG:</b>	Nonhazardous, not regulated
<b>IATA/ICAO:</b>	Nonhazardous, not regulated
<b>ADR/RID:</b>	Nonhazardous, not regulated

## 15 – REGULATORY INFORMATION

<b>European Classification:</b>	Xn-Harmful
<b>R - Phrase(s):</b>	Limited evidence of a carcinogenic effect
<b>S-Phrase(s):</b>	Do not breathe dust. Wear suitable protective clothing and gloves.
<b>Name of the substances on the label:</b>	Molybdenum Trioxide
<b>Other information:</b>	None

## 16- OTHER INFORMATION

<div>US EPA SARA TITLE III</div>		<div>Hazardous Materials Identification System (HMIS)</div>									
<div>312 Hazards</div> <div>Immediate Delayed</div>	<div>313 Chemicals:</div> <div>Molybdenum Trioxide</div>	<div>4= Severe Hazard 3= Serious Hazard 2= Moderate Hazard 1= Slight Hazard 0= Minimal Hazard c = See Section 8</div>	<table><tr><td>HEALTH</td><td>1</td></tr><tr><td>FLAMMABILITY</td><td>1</td></tr><tr><td>REACTIVITY</td><td>1</td></tr><tr><td>Personal Protection</td><td>*</td></tr></table>	HEALTH	1	FLAMMABILITY	1	REACTIVITY	1	Personal Protection	*
HEALTH	1										
FLAMMABILITY	1										
REACTIVITY	1										
Personal Protection	*										
<div>Risk phrases in section 3: R36/37: Irritating to eyes and respiratory system. R40: Limited evidence of a carcinogenic effect.</div> <div>Changes to the MSDS in this revision: Section 1 and 12</div>											
<div>This information is based solely on data provided by suppliers of the materials used, not on the mixture itself. No warranty is expressed or implied regarding the suitability of the product for the user's particular purpose. The user must make their own determination as to suitability.</div>											