



# HARRIS PSN7

## Brazing Filler Metal

### TECHNICAL DATA SHEET

#### BRAZING PROPERTIES

Harris PSN7 is a high quality, low cost, lead-free filler metal produced through Harris technology which results in the added advantage of accurate control of density and melting characteristics. This medium range alloy is self-fluxing on copper and is ideally suited for brazing copper, brass and bronze. In this two last application operators should take care to avoid overheating the brass and use Harris fluxes. Harris PSN7 should not be used for brazing steel or other ferrous base metals. In these applications the phosphorus content promotes formation of a low ductility intermetallic phases with the base metal.

#### CHEMICAL COMPOSITION

Copper	Remainder
Phosphorus	6,4 - 7,2%
Tin	6,5 - 7,5%
Other	ISO Requirements

#### MELTING TEMPERATURE

Solidus	650°C (1202°F)
Liquidus	700°C (1292°F)
Specific weight	8,00 g/cm <sup>3</sup>

#### CORROSION RESISTANCE

Generally similar to the copper base metal, but phosphorus containing alloys, including PSN7, should not be used if the braze is exposed to sulfur or sulfur compounds in service.

#### AVAILABLE FORMS

Rods for manual brazing applications. Brazing rings or spools for automated feeding.

#### RECOMMENDED FLUX

Harris ECO SMART® boric acid free brazing fluxes (green or black) are an excellent choice to promote sound brazed assemblies, and comply with European REACH requirements. Stay Silv brazing fluxes (white or black) are also recommended. All fluxes above are available in paste or powder form.

#### SPECIFICATION COMPLIANCE

ISO 17672 CuP 386





## **SAFETY INSTRUCTIONS**

**WARNING: PROTECT** yourself and others. Read and understand this information.

**FUMES AND GASES** can be hazardous to your health.

**HEAT RAYS** (infrared radiation) from flame or hot metal can injure eyes.

- Before use, read and understand the manufacturer's instructions, Material Safety Data Sheets (MSDS) and your employer's safety practices.
- Keep your head out of fumes.
- Use enough ventilation, exhaust at the flame or heat source, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear and body protection.
- **EN WARNING** Use of this product may produce fumes containing hazardous compounds. Use local exhaust to keep fumes and gases from all breathing zones.

Use respirator unless exposure is below exposure limits. Infrared radiation from flame or hot metal can injure eyes. Overexposure to copper fumes may cause fever, chills, congestion and headaches. Consult SDS.

## **STATEMENT OF LIABILITY - DISCLAIMER**

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. The values of the chemical composition of the alloys are given as a range, as shown in the ISO standard. Actual values can only be found in the Inspection Certificate 3.1. or in the Material Test Report that can be obtained with a cost and upon request concerning one specific batch.

Without exception or limitation, there are no warranties of merchantability or of fitness for particular purpose or application. The user must fully evaluate every process and application in all aspects, including suitability, compliance with applicable law and noninfringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.