TECHNICAL INFORMATION SHEET

SAFETY SILV® 40Ni2 BRAZING FILLER METAL

NOMINAL CHEMICAL COMPOSITION%:

Silver	39-41
Copper	29- 31
Zinc	26-30
Nickel	1.5-2.5
Other (Total)	0.15

TYPICAL PHYSICAL PROPERTIES:

Solidus	1240ºF (671°C)
Liquidus	1435°F (779°C)
Brazing Range	1435°F- 1650°F (780°C -900°C)
Electrical Conductivity	16.80 (%IACS)
Density	4.76 (Troy ounces./cu.in.).

BRAZING PROPERTIES:

Safety Silv 40Ni2 brazing filler metal is engineered for brazing copper, brass, steel, nickel alloys, and stainless steel. This alloy typically exhibits improved corrosion resistance on stainless steel compared to braze alloys without the nickel addition..

Applications are similar to those of the higher silver Safety Silv 50N but 40Ni2 exhibits a wider melting range with a slightly elevated melting temperature. It is frequently used to braze tungsten carbide to steel and tool steel for cutting tips, drill bits, and saw blades. The 2% nickel addition improves wetting and strength.

AVAILABLE FORMS:

Standard wire diameters, preform rings, coils, strip. . It is also available as a silver-copper-silver, (1-2-1 ratio), clad strip, AgClad™ 40Ni2.

SPECIFICATION COMPLIANCE:

ANSI/AWS A5.8, ASME SFA 5.8, and QQ-B-654A Class BAg-4, ISO 17672 Ag 440.

RECOMMENDED FLUX:

Stay-Silv® white flux is suitable for some applications but Stay-Silv® black brazing flux is often used to braze tungsten carbide. It is especially helpful when heating cycles are prolonged or where heat is focused as in induction brazing. Harris ECO SMART™ Boric Acid Free High Heat flux, (powder and paste), is an excellent choice to promote sound brazed assemblies and comply with European REACH requirements.

SAFETY INFORMATION:

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.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes,* published by the American Welding Society, 8669 Doral Blvd., Doral, Florida 33166; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

STATEMENT OF LIABILITY- DISCLAIMER

Any suggestion of product applications or results is given without representation or warranty, either expressed or implied. 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 non-infringement of the rights of others. The Harris Products Group and its affiliates shall have no liability in respect thereof.

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