



T H E H A R R I S P R O D U C T S G R O U P
A L I N C O L N E L E C T R I C C O M P A N Y
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TECHNICAL SPECIFICATION SHEET

ISO 9002
 Cert. No. 31598

HARRIS NICK® LEAD FREE SOLDER

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.

NOMINAL SOLDER COMPOSITION:

Silver	.05-.15%	Copper	3.5 - 4.5%
Nickel	.15-.25%	Tin	Balance

PHYSICAL PROPERTIES: Mechanical properties of bulk solder

Solidus	438°F (225°C)	Tensile Strength	5,500-5,800 psi
Liquidus	729°F (387°C)		
Color	Bright Silver		

SOLDERING PROPERTIES:

Nick lead-free plumbing solder has been specifically formulated as a replacement for the tin/lead solders. It has a wide melting range (291°F-144°C) that allows operators to fill small tight fitting pipe connections and also to bridge gaps in large, loose fitting or non-concentric pipe in order to make strong, solid joints. Its ease of application in all types of copper joints, makes it the preferred solder of experienced operators and the most forgiving the hands of the less experienced. Nick is a patented alloy which meets all Federal Requirements for lead-free solders mandated by the Federal Safe Drinking Water Act Amendments of 1986. (Public Law 99-339)

AVAILABLE FORMS:

- Standard wire diameters
- Preformed Rings

SPECIFICATION / CERTIFICATIONS COMPLIANCE: NSF 61

ASTM B32-89, Classification HN

RECOMMENDED FLUX:

- Bridgit Water Soluble Paste Flux, Stay Clean Paste Flux
- Stay Clean Liquid Flux (used with 4" or larger copper tubing also stainless steels)

All statements, information and data given are believed to be accurate and reliable but are presented without guarantee, warranty or responsibility of any kind, expressed or implied.

Additional information available at our web site: www.harrisproductsgroup.com

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

FUMES AND GASES can be hazardous to your health.

ARC RAYS can injure eyes and burn skin.

ELECTRIC SHOCK can KILL.

- 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 arc, or both, to keep fumes and gases from your breathing zone and the general area.
- Wear correct eye, ear, and body protection.
- Do not touch live electrical parts.
- See American National Standard Z49.1, *Safety in Welding, Cutting, and Allied Processes*, published by the American Welding Society, 550 N.W. LeJeune Road, Miami, Florida 33126; OSHA Safety and Health Standards, available from the U.S. Government Office, Washington, DC 20402.

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