

# SAFETY DATA SHEET



**Date issued :** 03/30/2009  
**SDS number :** NC601-LF965-30  
**Date revised :** 08/03/2022  
**Revision number :** 6

## Delta® NC601 No Clean Solder Wire - LF965-30

### 1. Identification

**Product identifier:** Delta® NC601 No Clean Solder Wire - LF965-30

**Product description:** Lead Free Solder Wire

**Manufacturer / Supplier**

Qualitek International, Inc.  
 315 Fairbank Street  
 Addison, IL 60101

**Emergency Phone:** (800)535-5053

**Customer Service:** (630)-628-8083

**Emergency telephone number (24 hour)**

1-800-535-5053 Infotrac

1-352-323-3500 Outside the U.S.

### 2. Hazard identification

**Label elements**



Exclamation  
 mark

**Signal word:** WARNING

**Hazard statement(s)**

H333: May be harmful if inhaled.

H335: May cause respiratory irritation.

**Precautionary statement(s)**

**Response:**

P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P302+P352: IF ON SKIN: Wash with plenty of water/...

P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.

**Potential health effects**

**Eye:** Fumes from this and other soldering products may cause eye irritation.

**Skin:** Fumes from this and other soldering products may cause skin irritation.

**Ingestion:** Ingestion of this or other soldering products may cause headache, nausea, and muscular pain.

**Inhalation:** Inhalation of the fumes from this or other soldering products may cause headache, nausea and muscular pain.

**Carcinogenicity:** Not listed as a carcinogen by NTP, OSHA, or ACGIH.

# SAFETY DATA SHEET



Date issued : 03/30/2009  
 SDS number : NC601-LF965-30  
 Date revised : 08/03/2022  
 Revision number : 6

## Delta® NC601 No Clean Solder Wire - LF965-30

**Medical conditions aggravated:** Pre-existing conditions of the lungs, kidneys, nervous system and possibly reproductive systems; diseases of the blood forming organs

**Routes of entry:** Inhalation, ingestion, eye or skin contact.

### 3. Composition/information on ingredients

Chemical name	% w/w	CAS No.
Tin	92.3 - 96.2	7440-31-5
Silver	2.7 - 3.2	7440-22-4
Copper	0.3 - 0.7	7440-50-8
Organic Acids	< 3	4767-03-7

### 4. First-aid measures

**Eye:** MOLTEN PRODUCT: Cool burns with plenty of low-pressure water. Get immediate medical attention. SOLID PRODUCT: Remove any contact lenses. Immediately flush eyes with large quantities of water for at least 15 minutes. Get medical attention if irritation develops.

**Skin:** MOLTEN PRODUCT: Immediately cool skin burns with water and cold packs for at least 15 minutes. Do not put ice directly on the skin. Do not attempt to remove solidified product from the skin, as damage may result. Get immediate medical attention. SOLID PRODUCT: Immediately wash skin with soap and copious amounts of water. Use lotion to prevent dryness. Get medical attention if irritation develops.

**Ingestion:** If person is conscious, immediately give 2 glasses of water. Do not induce vomiting. Get immediate medical attention.

**Inhalation:** If symptoms of overexposure are experienced, evacuate to fresh air. If symptoms persist, seek medical attention.

#### Most important symptoms and effects, both acute and delayed

**Skin:** Discomfort or rash.

**Inhalation:** Irritation of the pulmonary system.

**Chronic effects:** Prolonged or repeated exposure due to ingestion may cause anemia, insomnia, weakness, constipation and abdominal pain. Prolonged or repeated exposure due to skin exposure and inhalation may cause skin rash and damage to the mucous membranes.

**Comments:** If victims of chemical over-exposure are taken for medical attention, give a copy of the label or this SDS to the physician/health care professional.

### 5. Fire-fighting measures

**Suitable extinguishing media:** Alcohol-resistant foam, carbon dioxide (CO<sub>2</sub>), or dry chemical.

**Explosion hazards:** Closed containers may explode when exposed to fire conditions.

# SAFETY DATA SHEET



**Date issued :** 03/30/2009  
**SDS number :** NC601-LF965-30  
**Date revised :** 08/03/2022  
**Revision number :** 6

## Delta® NC601 No Clean Solder Wire - LF965-30

**Fire fighting equipment:** Self contained breathing apparatus with full face piece operated in positive pressure demand mode, appropriate turn-out gear and chemical resistant personal protective equipment is recommended.

### 6. Accidental release measures

**General procedures:** If the material is in its solid state, pick up and reuse. When molten, allow to solidify, and then reuse if it is not contaminated. If contaminated, refer to Section 13 for proper disposal procedures.

**Release notes:** Avoid repeated or prolonged breathing or skin contact. Wash hands immediately, and remove material from under the fingernails.

### 7. Handling and storage

**General procedures:** Do not store or use near sparks or open flames. Keep containers tightly closed and upright when not in use in order to prevent leakage.

### 8. Exposure controls/personal protection

# SAFETY DATA SHEET



Date issued : 03/30/2009  
 SDS number : NC601-LF965-30  
 Date revised : 08/03/2022  
 Revision number : 6

## Delta® NC601 No Clean Solder Wire - LF965-30

### Exposure controls

Control parameters				
Occupational exposure limit values				
Chemical name	Type		ppm	mg/m <sup>3</sup>
Tin	OSHA PEL	TWA	NL ppm <sup>[1]</sup>	2.00 mg/m <sup>3</sup> <sup>[1]</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
	ACGIH TLV	TWA	NL ppm	2.00 mg/m <sup>3</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
	Supplier OEL	TWA	NL ppm	NL mg/m <sup>3</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
Silver	OSHA PEL	TWA	NL ppm <sup>[1]</sup>	0.10 mg/m <sup>3</sup> <sup>[1]</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
	ACGIH TLV	TWA	NL ppm	0.10 mg/m <sup>3</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
	Supplier OEL	TWA	NL ppm	NL mg/m <sup>3</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
Copper	OSHA PEL	TWA	NL ppm <sup>[1]</sup>	0.20 mg/m <sup>3</sup> <sup>[1]</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
	ACGIH TLV	TWA	NL ppm	0.20 mg/m <sup>3</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>
	Supplier OEL	TWA	NL ppm	NL mg/m <sup>3</sup>
		STEL	NL ppm	NL mg/m <sup>3</sup>

**Footnotes:**  
 1. NL = Not Listed

**Appropriate engineering controls:** General (mechanical) room ventilation is expected to be satisfactory where this product is stored and handled and in closed equipment. Special local ventilation is needed at points where vapors can be expected to escape into the workplace air.

### Individual protection measures, such as personal protective equipment

**Eye / face protection:** Face shield, safety glasses with side shield or chemical splash goggles. When working with

# SAFETY DATA SHEET



**Date issued :** 03/30/2009  
**SDS number :** NC601-LF965-30  
**Date revised :** 08/03/2022  
**Revision number :** 6

## Delta® NC601 No Clean Solder Wire - LF965-30

molten material, face shield is recommended.

**Skin protection - hand protection:** Rubber, chemical resistant gloves. When material is heated, wear gloves to protect against thermal burns.

**Respiratory protection:** Not normally needed in well ventilated areas. If the ventilation is insufficient to remove smoke from soldering processes, use NIOSH/MSHA approved cartridge type respirator.

**Skin protection - other:** Protective clothing and safety shoes as necessary to minimize contact.

**Occupational hygiene practices:** Good personal hygiene practices should be used. Wash after any contact, before eating, and at the end of the work period.

**Other use precautions:** Eye wash station and quick drench safety shower in immediate work area.

### 9. Physical and chemical properties

**Appearance:** Metal in wire form.

**Color:** Silver gray

**Odor:** Odorless

**Melting point:** 217°C (423°F) to 219°C (426°F) (alloy)

**Initial boiling point and boiling range:** 1380°C (2516°F) @ 760 mmHg

**Flash point:** Not Applicable

**Lower explosion limit / flammability limit:** Not Established

**Vapor pressure:** 1 mmHg at 866°C (1591°F)

**Relative vapor density:** Not Determined

**Relative density:** 5.9 to 7.0 (water=1)

**Solubility:** Partially Soluble

**Auto-ignition temperature:** Not Applicable

### 10. Stability and reactivity

**Dangerous polymerization:** Will not occur under normal use and storage conditions.

**Chemical stability:** Stable under ordinary use and storage conditions.

**Hazardous decomposition products:** May emit toxic fumes of carbon monoxide and carbon dioxide.

**Incompatible materials:** Strong acids and strong oxidizers should be avoided..

### 11. Toxicological information

**General comments:** No toxicological information available at this time.

### 12. Ecological information

# SAFETY DATA SHEET



**Date issued :** 03/30/2009  
**SDS number :** NC601-LF965-30  
**Date revised :** 08/03/2022  
**Revision number :** 6

## Delta® NC601 No Clean Solder Wire - LF965-30

**General comments:** No information on ecological toxicity or biodegradability is available at this time.

### 13. Disposal considerations

**Disposal methods:** Dispose of this material, contaminated absorbent material and other contaminated materials in an approved waste disposal facility, according to all applicable Federal, State, and Local regulations. Recovery and reuse, rather than disposal, should be the ultimate goal in handling efforts.

### 14. Transport information

**USA Department of Transport Regulations (DOT)**

**UN proper shipping name:** Not regulated by DOT

### 15. Regulatory information

#### UNITED STATES

#### SARA Section 311/312 Hazard Categories

**311/312 Health hazards:** Chronic health hazard.

**313 reportable ingredients:** Silver CAS# 7440-22-4, Copper CAS# 7440-50-8 (weight percentages can be determined from product label)

#### EPCRA Section 313 Toxic Chemicals

Chemical name	% w/w	CAS No.
Copper	0.3 - 0.7	7440-50-8

#### CERCLA Hazardous Substances and Reportable Quantities (RQ)

**CERCLA regulatory:** As a solid in wire form, there is no reportable quantity (RQ) for this product. However, if it is cut into pieces smaller than 100 micrometers, the RQ for silver is 1000 lbs., and the RQ for copper is 5000 lbs. Please contact local authorities to determine if there are any local reporting requirements.

#### TSCA (The Toxic Substances Control Act)

Chemical name	CAS No.
Copper	7440-50-8

**TSCA Status:** All ingredients are listed or are exempt from listing (as polymers) on the Toxic Substances Control Act (TSCA) Chemical Substance Inventory.

**California Proposition 65:** When used for soldering and similar applications chemicals may be produced which are known to some states to cause birth defects or other reproductive harm.

### 16. Other information

**Reason for issue:** Renewal date updated due to expiration.

# SAFETY DATA SHEET



**Date issued :** 03/30/2009  
**SDS number :** NC601-LF965-30  
**Date revised :** 08/03/2022  
**Revision number :** 6

## Delta® NC601 No Clean Solder Wire - LF965-30

**Approved by:** P. Han    **Title:** Technical Director

**Prepared by:** Dinesh Amin    **Date revised:** 08/03/2022

**Information contact:** (630) 628-8083

**Revision summary:** This SDS replaces the 06/09/2020 SDS. Revised: **Section 1:** Title. **Section 2:** Label elements, Precautionary statement(s).

### HMIS rating

Health	<input type="checkbox"/>	1
Flammability	<input type="checkbox"/>	0
Physical hazard	<input type="checkbox"/>	0
Personal protection	<input checked="" type="checkbox"/>	X

**Manufacturer disclaimer:** The information contained herein is based upon data considered to be accurate and is offered solely for information, customer consideration and investigation. The manufacturer extends no warranties, makes no representations and assumes no responsibility as to the accuracy, completeness or suitability of this data for any purchaser's use. The content of this Safety Data Sheet relates only to this product as sold and does not relate to use with any other material or in any process. All chemical products should be used only by, or under, the direction of technically qualified personnel, who are aware of the hazards involved and of the necessity for reasonable care in handling. Hazard communication regulations, United States Occupational Health and Safety (OSHA) and Canadian Workplace Hazardous Materials Information System (WHMIS) require that employees must be trained in the use of Safety Data Sheets as a source of hazards information and response.