

# SAFETY DATA SHEET



Date Issued : 07/17/2019  
 SDS No : 825HF (Delta 99C)

**Delta® No Clean Lead Free Halogen Free Solder Paste Type 825HF - Delta 99C (Sn/Cu/Ni/Ge)**

## 1. PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME:** Delta® No Clean Lead Free Halogen Free Solder Paste Type 825HF - Delta 99C  
 (Sn/Cu/Ni/Ge)

**PRODUCT DESCRIPTION:** Lead Free No Clean Halogen Free Solder Paste

### MANUFACTURER

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

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

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

### 24 HR. EMERGENCY TELEPHONE NUMBERS

1-800-535-5053 Infotrac

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

## 2. HAZARDS IDENTIFICATION

### GHS LABEL

### PRECAUTIONARY STATEMENT(S)

#### Prevention:

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P264: Wash hands thoroughly after handling.

#### 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.

P337+P313: If eye irritation persists: Get medical advice/attention.

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

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

#### Storage:

P235: Keep cool.

#### Disposal:

P501: Dispose of contents/container in accordance to local/regional/national/international regulations.

## POTENTIAL HEALTH EFFECTS

**EYES:** 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

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muscular pain.

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

**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	Wt. %	CAS
Tin	87 - 88	7440-31-5
Copper	0.3 - 0.7	7440-50-8
Nickel	0.03 - 0.07	7440-02-0
Germanium	0.004 - 0.006	7440-56-4
Modified Rosin	< 6	65997-13-9
Glycol Ether Solvent	< 3	55934-93-5

### 4. FIRST AID MEASURES

**EYES: 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 swallowed, DO NOT induce vomiting. Keep at rest. Get prompt medical attention.

**INHALATION:** Remove to fresh air immediately and consult medical attention from a licensed healthcare professional.

#### SIGNS AND SYMPTOMS OF OVEREXPOSURE

**SKIN:** Discomfort or rash.

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

**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.

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## 5. FIRE FIGHTING MEASURES

**EXPLOSION HAZARDS:** None known.

**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:** Scoop up material and deposit in appropriate containers. Clean up residual spill area with isopropanol or detergent water.

**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

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## EXPOSURE GUIDELINES

OSHA HAZARDOUS COMPONENTS (29 CFR1910.1200)				
Chemical Name	Type	EXPOSURE LIMITS		
			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>
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

**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.

## PERSONAL PROTECTIVE EQUIPMENT

**EYES AND FACE:** Safety glasses

**SKIN:** Rubber, chemical resistant gloves.

**RESPIRATORY:** 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.

**PROTECTIVE CLOTHING:** Protective clothing and safety shoes as necessary to minimize contact.

**WORK HYGIENIC PRACTICES:** Handle in accordance with good industrial hygiene and safety practice.

**OTHER USE PRECAUTIONS:** Eyewash station and safety showers should be easily accessible.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

**ODOR:** Mild

**APPEARANCE:** Paste

**COLOR:** Metallic gray

**FLASH POINT AND METHOD:** > 98°C (209°F)

**FLAMMABLE LIMITS:** Not Established

**AUTOIGNITION TEMPERATURE:** > 227°C (440°F)

**VAPOR PRESSURE:** Not Determined

**VAPOR DENSITY:** Not Determined

**BOILING POINT:** 198°C (388°F) (vehicle)

**MELTING POINT:** 227°C (440.6°F)

**SOLUBILITY IN WATER:** Partially Soluble

**DENSITY:** 7.4 gm/cm<sup>3</sup>

## 10. STABILITY AND REACTIVITY

**HAZARDOUS POLYMERIZATION:** Will not occur under normal use and storage conditions.

**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

**GENERAL COMMENTS:** No information on ecological toxicity or biodegradability is available at this time.

## 13. DISPOSAL CONSIDERATIONS

**DISPOSAL METHOD:** 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

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DOT (DEPARTMENT OF TRANSPORTATION)

PROPER SHIPPING NAME: Not regulated by DOT

## 15. REGULATORY INFORMATION

UNITED STATES

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)

311/312 HEALTH HAZARDS: Chronic health hazard.

EPCRA SECTION 313 SUPPLIER NOTIFICATION

Chemical Name	Wt. %	CAS
Copper	0.3 - 0.7	7440-50-8

TSCA (TOXIC SUBSTANCE CONTROL ACT)

Chemical Name	CAS
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

APPROVED BY: P. Han TITLE: Technical Director

PREPARED BY: J. Saleda-Layton Date Prepared: 07/17/2019

INFORMATION CONTACT: (630) 628-8083

### HMIS RATING

HEALTH	<input type="checkbox"/>	1
FLAMMABILITY	<input type="checkbox"/>	1
PHYSICAL HAZARD	<input type="checkbox"/>	0
PERSONAL PROTECTION	<input type="checkbox"/>	B

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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.