

SAFETY DATA SHEET



Date Prepared : 10/22/2003
SDS No : 798LF (Sn/Ag/Cu)
Date Revised : 04/25/2018
Revision No : 6

Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

PRODUCT DESCRIPTION: Lead 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



Health
hazard

SIGNAL WORD: WARNING

HAZARD STATEMENTS

H351: Suspected of causing cancer (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard).

PRECAUTIONARY STATEMENT(S)

Prevention:

P264: Wash hands thoroughly after handling.

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

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 soap and water.

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

Storage:

SAFETY DATA SHEET



Date Prepared : 10/22/2003
 SDS No : 798LF (Sn/Ag/Cu)
 Date Revised : 04/25/2018
 Revision No : 6

Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

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 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	83.6 - 86.3	7440-31-5
Silver	2.5 - 3.7	7440-22-4
Copper	0.3 - 0.8	7440-50-8
Amines, tallow alkyl, ethoxylated	< 3	61791-26-2
Terpene Alcohol	< 2	98-55-5
Diethanolamine	< 0.5	111-42-2

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 person is conscious, immediately give 2 glasses of water. Do not induce vomiting. Get immediate

SAFETY DATA SHEET



Date Prepared : 10/22/2003
SDS No : 798LF (Sn/Ag/Cu)
Date Revised : 04/25/2018
Revision No : 6

Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

medical attention.

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

SIGNS AND SYMPTOMS OF OVEREXPOSURE

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

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

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: Face shield, safety glasses with side shield or chemical splash goggles. When working with molten material, face shield is recommended.

SAFETY DATA SHEET



Date Prepared : 10/22/2003
SDS No : 798LF (Sn/Ag/Cu)
Date Revised : 04/25/2018
Revision No : 6

Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

SKIN: Rubber, chemical resistant gloves. When material is heated, wear gloves to protect against thermal burns.

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: 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

ODOR: Mild

APPEARANCE: Paste

COLOR: Metallic gray

FLASH POINT AND METHOD: > 204°C (400°F)

FLAMMABLE LIMITS: Not Established

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

VAPOR PRESSURE: Not Determined

VAPOR DENSITY: Not Determined

BOILING POINT: 300°C (572°F) (vehicle)

MELTING POINT: 217°C (423°F) to 221°C (430°F) (Please refer to Technical Bulletin for specific alloy data)

SOLUBILITY IN WATER: Partially Soluble

SPECIFIC GRAVITY: 7.31 to 7.47 (water=1)

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

CARCINOGENICITY

IARC: Diethanolamine, CAS# 111-42-2; Possible Human Carcinogen (Class 2B)

SAFETY DATA SHEET



Date Prepared : 10/22/2003
SDS No : 798LF (Sn/Ag/Cu)
Date Revised : 04/25/2018
Revision No : 6

Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

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

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 HAZARD CATEGORIES: Chronic health hazard.

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

TSCA (TOXIC SUBSTANCE CONTROL ACT)

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: This product contains a chemical known to the state of California to cause cancer and birth defects or other reproductive harm.

16. OTHER INFORMATION

REASON FOR ISSUE: New format

APPROVED BY: P. Han **TITLE:** Technical Director

PREPARED BY: J. Saleda-Layton **Date Revised:** 04/25/2018

INFORMATION CONTACT: (630) 628-8083

REVISION SUMMARY: This SDS replaces the 08/07/2017 SDS. Revised: **Section 2:** . **Section 11:** GENERAL COMMENTS, IARC. **Section 15:** CALIFORNIA PROPOSITION 65.

SAFETY DATA SHEET



Date Prepared : 10/22/2003
SDS No : 798LF (Sn/Ag/Cu)
Date Revised : 04/25/2018
Revision No : 6

Delta® Lead Free Water Soluble Solder Paste Type 798LF - Sn/Ag/Cu Alloys

HMIS RATING

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

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.