



# Material Safety Data Sheet

## Section 1 - Product Information

Product Name: **Solder Paste Type 691Q**

Manufacturer: Qualitek International, Inc.      Emergency Telephone Number: 1-800-535-5053  
315 Fairbank Street      Information Telephone Number: 1-630-628-8083  
Addison, IL 60101, USA      Fax Number: 1-630-628-6543

Date Prepared: 01/15/99

Supercedes: May 18, 1998

## Section 2 - Ingredients / Identity

### **Hazardous**

<u>Chemical Common Name(s)</u>	<u>OSHA PEL</u>	<u>ACGIH TLV</u>	<u>Wt. %</u>	<u>CAS #</u>
**Lead	0.05 mg/m <sup>3</sup>	0.15 mg/m <sup>3</sup>	*	7439-92-1
Tin	2.00 mg/m <sup>3</sup>	2.00 mg/m <sup>3</sup>	*	7440-31-5
**Silver	0.01 mg/m <sup>3</sup>	0.10 mg/m <sup>3</sup>	*	7440-22-4
**Antimony	0.5 mg/m <sup>3</sup>	0.5 mg/m <sup>3</sup>	*	7440-36-0
Bismuth	N/E	N/E	*	7440-69-9

### **Non-Hazardous**

Synthetic Resin	N/E	N/E	<6	65997-05-9
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### Hazard Rating Systems

HMIS:              Health: 2              Flammability: 1              Reactivity: 0              Personal Protection: B

No other hazardous ingredients exceed 1%. Other ingredients are not considered hazardous according to 29 CFR 1910.1200

## Section 3 - Physical and Chemical Characteristics

Boiling Point: 388° F (Vehicle)

Specific Gravity (H<sub>2</sub>O = 1): 3.5-5.5

Vapor Pressure (mm Hg):N/D

Melting Point: (Of Alloy): Refer to Technical Bull.

Vapor Density (AIR<sup>2</sup>=1): N/D

Reactivity in Water: None

Solubility in Water: Partial

Appearance and Odor: Metallic Gray Paste with Mild Odor

## Section 4 - Fire and Explosion Data

Flash Point: >209°F

Flammable Limits in Air % by Volume:

Auto Ignition Temperature: >440°F

LEL Lower: N/E              UEL Upper: N/E

Special Fire Fighting Procedures: SCBA with full face piece and protective clothing is recommended, if this material is in the vicinity of fire.

Unusual Fire and Explosion Hazards: None Known

## Section 5 - Reactivity Data

Stability: Stable       Unstable       Conditions to Avoid:      None

Incompatibility (Materials to Avoid): Strong Acids, Strong Oxidizers

Hazardous Decomposition or Byproducts: May release toxic vapor/gases such as Carbon Monoxide, Carbon Dioxide

Hazardous Polymerization: May Occur       Will not Occur       Conditions to Avoid: N/A

\*Composition and weight % of Solder Powder vary widely, and can be determined by product label. Solder powder is typically 85-90% of solder paste composition.

\*\*Subject to reporting requirements of SARA TITLE III, Section 313 and 40 CFR Part 372.

## Section 6 – Health Hazards

### Acute (Severe Short Term) Health Hazards:

Inhalation of fumes or ingestion may cause headache, nausea, muscular pain, irritation of eye and nose may result from contact with soldering fumes.

### Chronic (Long Term) Health Hazards:

Anemia, insomnia, weakness, constipation and abdominal pains due to ingestion, skin rash, damage to mucous membranes due to skin exposure and inhalation.

Signs and Symptoms of Exposure: Irritation of pulmonary system, skin rash

Medical Conditions Generally Aggravated by Exposure: Pre-existing conditions of the lungs, diseases of the blood and blood forming organs; kidneys, nerves and possibly reproductive systems.

Carcinogenicity: Not listed as a carcinogen by NTP, OSHA, ACGIN: IARC classifies lead and its compounds as a Group 2B carcinogen (possibly carcinogenic to humans).

Emergency and First Aid Procedures: Perform the following First Aid Procedures; consult a Physician and get proper medical attention when necessary, in case of contact with smoke from soldering or repeated skin contact.

**Eye Contact:** Flush eyes with plenty of water for 15 minutes.

**Skin Contact:** Wash thoroughly with soap and water; use lotion to prevent dryness.

**Inhalation:** Remove person to fresh air

**Ingestion:** Drink a lot of water, do not induce vomiting and get proper medical attention

## Section 7 - Special Precautions and Spill/Leak Procedures

Handling and Storage: Do not store or use near spark or flame. Keep containers closed tightly and upright to prevent leakage.

If Material is Released or Spilled: Scoop up paste and deposit in appropriate containers. Clean up residual with Isopropanol or detergent water.

Waste Disposal Methods: Disposal in accordance with Federal, State and local regulations.

Other Precautions: Avoid repeated or prolonged breathing of vapor or skin contact; wash hands immediately, remove paste from under finger nails.

## Section 8 – Special Protection Information / Control Measures

Respiratory Protection: Usually not required. When ventilation is not adequate to remove smoke (during soldering) from breathing zone a cartridge type respirator is needed.

Ventilation & Local Exhaust: As required keep PEL & TLV below the limit

Protective Gloves: Neoprene or rubber

Eye Protection: Splash guard goggles.

Other Protective Equipment: Not required.

Work / Hygienic Practices: Wash hands after handling product, avoid prolonged or repeated contact with skin or breathing fumes and vapors.

## Section 9 – Other Regulatory Information

TSCA: Subject chemical substance(s) and ingredient(s) are all listed on the "TSCA Inventory" of chemical substances maintained by the U.S. Environmental Protection Agency.

SARA TITLE III: Section 311/312 – This product is classified into the following hazard categories:

Delayed Health. Section 313 – The following toxic chemical is subject to the Community Right-To-Know reporting requirements: Lead, CAS#7439-92-1; Silver, CAS #7440-22-4; Antimony, CAS#7440-36-0. Weight percentages can be determined by product label.

California Proposition 65: This product contains lead, a chemical known to some states to cause cancer and birth defects or other reproductive harm.

This information contained herein is based upon data considered accurate and is offered solely for information, consideration and investigation. Qualitek 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 data on the Material Safety Data Sheet relates only to this product 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 the necessity for reasonable care in handling. Hazard communication regulations, USA Occupational Safety and Health Act (OSHA), and Canada Workplace Hazardous Materials Information System (WHMIS), require that employees must be trained on the use of Material Safety Data Sheets as a source of hazardous information. 691 Solder Paste