



## Material Safety Data Sheet



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### 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: TTC-LF E/M/0714  
Item No. : 706397

Product type: Tip Tinner/Cleaner

Region: Europe

**Company Name & Address**

Henkel Loctite Adhesives Ltd.  
Multicore Solders  
Technologies House, Wood Lane End  
Hemel Hempstead, Herts HP2 4RQ, UK  
Tel: +44 (0) 1442 278000  
Fax: +44 (0) 1442 278071  
Emergency Tel: +44 (0) 1442 278000

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components CAS No.	EINECS-No.	%	Classification
Tin 7440-31-5	231-141-8	40 - 50	
Silver 7440-22-4	231-131-3	1 - 5	
Copper 7440-50-8	231-159-6	0.1 - 1	
Citric acid 77-92-9	201-069-1	5 - 10	Xi;R36
Malonic acid 141-82-2	205-503-0	0.1 - 1	Xn;R22 Xi;R37-41

**Additional Information:**

For the explanation of the listed risk phrases refer to Section 16.

### 3. HAZARDS IDENTIFICATION

Fumes evolved at soldering temperatures will irritate the nose, throat and lungs.

### 4. FIRST AID MEASURES

**Inhalation:** Remove to fresh air. If discomfort persists seek medical attention.

**Eye contact:** Flush eyes with plenty of water for at least 5 minutes. If irritation persists seek medical attention.

**Ingestion:** Do not induce vomiting. Seek medical attention immediately.

**Skin contact:** Wash off with soap and plenty of water. Obtain medical attention if irritation persists.

## 5. FIRE-FIGHTING MEASURES

**Extinguishing media:** The product itself does not burn. Use extinguishing measures appropriate to local circumstances and the surrounding environment.

**Special fire fighting procedures:** Fire fighters should wear positive pressure breathing apparatus.

**Unusual fire or explosion hazards:** None.

**Hazardous combustion products:** Thermal decomposition can lead to release of irritating gases and vapours.

## 6. ACCIDENTAL RELEASE MEASURES

**Environmental precautions:** Do not let product enter drains.

**Clean-up methods:** Scrape up spilled material and place in a closed container for disposal.

## 7. HANDLING AND STORAGE

**Handling:** Use only in well-ventilated areas. Avoid contact with skin and eyes.

**Storage:** Store in a cool, dry place.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous components CAS No.	ACGIH TLV	Austria	Belgium	Czech
<b>Tin</b> 7440-31-5	2 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> TWA except Tin hydride	2 mg/m <sup>3</sup> MAK 4 mg/m <sup>3</sup> STEL 4 mg/m <sup>3</sup> STEL	2 mg/m <sup>3</sup> VLE 2 mg/m <sup>3</sup> VLE	2 mg/m <sup>3</sup> TWA
<b>Silver</b> 7440-22-4	0.1 mg/m <sup>3</sup> TWA	0.01 mg/m <sup>3</sup> MAK 0.1 mg/m <sup>3</sup> STEL	0.1 mg/m <sup>3</sup> VLE	0.1 mg/m <sup>3</sup> TWA
<b>Copper</b> 7440-50-8	0.2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> MAK 0.1 mg/m <sup>3</sup> MAK 0.4 mg/m <sup>3</sup> STEL 1 mg/m <sup>3</sup> MAK 4 mg/m <sup>3</sup> STEL	0.2 mg/m <sup>3</sup> VLE 1 mg/m <sup>3</sup> VLE	0.1 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA

Hazardous components CAS No.	Estonia	Greece	Finland	France	Hungary
<b>Tin</b> 7440-31-5		2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> TWA		8 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup> TWA
<b>Silver</b> 7440-22-4	0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> VME	0.4 mg/m <sup>3</sup> STEL 0.1 mg/m <sup>3</sup> TWA
<b>Copper</b> 7440-50-8	0.2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA 0.2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> STEL 1 mg/m <sup>3</sup> TWA 0.2 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA	0.2 mg/m <sup>3</sup> VME 1 mg/m <sup>3</sup> VME 2 mg/m <sup>3</sup> VLE	4 mg/m <sup>3</sup> STEL 0.4 mg/m <sup>3</sup> STEL 1 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup> TWA

Hazardous components CAS No.	Germany	Ireland	Netherlands	Norway	Portugal
<b>Tin</b> 7440-31-5		2 mg/m <sup>3</sup> TWA 4 mg/m <sup>3</sup> STEL 4 mg/m <sup>3</sup> STEL	2 mg/m <sup>3</sup> MAC 2 mg/m <sup>3</sup> MAC	2 mg/m <sup>3</sup> TWA	2 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> TWA
<b>Silver</b> 7440-22-4	0.01 mg/m <sup>3</sup> MAK 0.02 mg/m <sup>3</sup> Peak 0.1 mg/m <sup>3</sup> MAK 0.8 mg/m <sup>3</sup> Peak	0.01 mg/m <sup>3</sup> TWA 0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> MAC	0.1 mg/m <sup>3</sup> TWA	0.1 mg/m <sup>3</sup> TWA
<b>Copper</b> 7440-50-8	0.1 mg/m <sup>3</sup> MAK 0.2 mg/m <sup>3</sup> Peak	0.2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA 2 mg/m <sup>3</sup> STEL	0.2 mg/m <sup>3</sup> MAC 1 mg/m <sup>3</sup> MAC	0.1 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA	0.2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA

Hazardous components CAS No.	Poland	Spain	Sweden	UK EH40
<b>Tin</b> 7440-31-5	2 mg/m <sup>3</sup> NDS	2 mg/m <sup>3</sup> VLA-ED 2 mg/m <sup>3</sup> VLA-ED	0.1 mg/m <sup>3</sup> LLV 0.2 mg/m <sup>3</sup> STV	2 mg/m <sup>3</sup> TWA 4 mg/m <sup>3</sup> STEL
<b>Silver</b> 7440-22-4	0.05 mg/m <sup>3</sup> NDS	0.1 mg/m <sup>3</sup> VLA-ED	0.1 mg/m <sup>3</sup> LLV	0.1 mg/m <sup>3</sup> TWA 0.3 mg/m <sup>3</sup> STEL
<b>Copper</b> 7440-50-8		0.2 mg/m <sup>3</sup> VLA-ED 1 mg/m <sup>3</sup> VLA-ED	0.2 mg/m <sup>3</sup> LLV 1 mg/m <sup>3</sup> LLV	0.2 mg/m <sup>3</sup> TWA 1 mg/m <sup>3</sup> TWA 0.6 mg/m <sup>3</sup> STEL 2 mg/m <sup>3</sup> STEL

**Engineering controls:** Ensure adequate ventilation, especially in confined areas.

**Respiratory protection:** In case of insufficient ventilation, wear suitable respiratory equipment.

**Skin protection:** For hand protection, use rubber or plastic gloves.

**Eye/face protection:** Safety glasses should be worn.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical state:</b>	paste
<b>Colour:</b>	grey
<b>Odour:</b>	mild
<b>pH:</b>	not applicable
<b>Vapour pressure:</b>	negligible vapour pressure at ambient temperatures
<b>Boiling point/range:</b>	not determined
<b>Melting point/range:</b>	217°C (423°F) (solder alloy)
<b>Specific gravity:</b>	3.5
<b>Flash point:</b>	none
<b>Solubility in water:</b>	insoluble
<b>Partition coefficient (n-octanol/water):</b>	not determined

## 10. STABILITY AND REACTIVITY

**Stability:** Stable under recommended storage conditions.

**Hazardous polymerisation:** Will not occur.

**Hazardous decomposition products:** Thermal decomposition can lead to release of irritating gases and vapours.

**Conditions to avoid:** Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides.

## 11. TOXICOLOGICAL INFORMATION

<b>Inhalation:</b>	Fumes evolved at soldering temperatures will irritate the nose, throat and lungs.
<b>Skin:</b>	Prolonged contact may cause some irritation.
<b>Eyes:</b>	Contact with eyes may cause irritation.
<b>Ingestion:</b>	May cause irritation to the digestive tract.

## 12. ECOLOGICAL INFORMATION

<b>Mobility:</b>	No data available.
<b>Bioaccumulation:</b>	No data available.
<b>Ecotoxicity:</b>	It is expected to be non hazardous to aquatic species.
<b>Persistence and degradability:</b>	Not inherently biodegradable.
<b>WGK Water Classification (VwVwS):</b>	Class 1

## 13. DISPOSAL CONSIDERATIONS

<b>Product Disposal methods:</b>	Wherever possible unwanted solder alloy should be recycled for recovery of metal. Otherwise dispose of in accordance with local and national regulations.
<b>European Waste Catalogue:</b>	06 04 05 - wastes containing other heavy metals.
<b>Packaging Disposal Methods:</b>	Dispose of as unused product.

## 14. TRANSPORT INFORMATION

### ICAO/IATA (Air):

<b>Identification number:</b>	None
<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Packing group:</b>	None

### IMO/IMDG (Sea)

<b>Identification number:</b>	None
<b>Proper shipping name:</b>	Not regulated
<b>Hazard class or division:</b>	None
<b>Packing group:</b>	None

### ADR/RID (Road/Rail)

<b>UN Number</b>	None
<b>Proper shipping name:</b>	Unrestricted
<b>Hazard class or division</b>	None
<b>Packing group</b>	None

## 15. REGULATORY INFORMATION

<b>Indication of danger:</b>	None.
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**Risk Phrases:** None.  
**Safety Phrases:** None

**Additional Labelling:** Avoid breathing fumes given out during soldering.

**UK National regulations:** The Health & Safety at Work etc. Act  
The Control of Substances Hazardous to Health Regulations 2002  
L5: General Approved Code of Practice to the COSHH Regulations  
HS(G)97: A Step by Step Guide to the COSHH Regulations  
HS(G)193: COSHH essentials: Easy steps to control chemicals

## 16. OTHER INFORMATION

**Supersedes Sheet Dated:** 03/01/2006

**Prepared by:** Barry Chase  
Senior Specialist  
Product Safety & Regulatory Affairs - Europe

**MSDS data Revised:** 09/05/2006

The information in this safety data sheet was obtained from reputable sources and to the best of our knowledge is accurate and current at the mentioned date. Attention of users is drawn to the possible hazards from improper use of the product(s). Neither Loctite nor its subsidiary companies accept any liability arising out of the use of the information provided here or the use, application or processing of the product(s) described herein. This safety data sheet was prepared in accordance with Commission Directive 2004/73/EC adapting to technical progress for the 29th time Council Directive 67/548/EEC, and Commission Directive 1999/45/EC.

### Explanation of Section 2 R - Phrases

R22 - Harmful if swallowed.

R36 - Irritating to eyes.

R37 - Irritating to respiratory system.

R41 - Risk of serious damage to eyes.