



Material Safety Data Sheet



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1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: 96SC Crystal 511

Item No. : MB1069

Product type: Solder Wire

Region: Europe

Company Name & Address

Henkel Loctite Adhesives Ltd.

Multicore Solders

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2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components CAS No.	EINECS-No.	%	Classification
Tin 7440-31-5	231-141-8	80 - 100	
Silver 7440-22-4	231-131-3	1 - 5	
Copper 7440-50-8	231-159-6	0.1 - 1	

Additional Information:

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

3. HAZARDS IDENTIFICATION

This product contains modified rosin. Flux fumes emitted during reflow will irritate the nose and throat and may cause an asthmatic type reaction.

4. FIRST AID MEASURES

Inhalation: Move to fresh air. If symptoms persist, seek medical advice.

Eye contact: Flush eyes with plenty of water for at least 15 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. Do not use water on fires where molten metal is present.
Unusual fire or explosion hazards:	None.
Hazardous combustion products:	High temperatures may produce heavy metal dust, fumes or vapours. The flux will give rise to irritating fumes.

6. ACCIDENTAL RELEASE MEASURES

Clean-up methods:	Scrape up.
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7. HANDLING AND STORAGE

Handling:	Use only in area provided with appropriate exhaust ventilation. Do not eat, drink or smoke when handling. Wash hands before breaks and immediately after handling the product.
Storage:	Store in a cool, dry place. Keep out of reach of children.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Hazardous components CAS No.	ACGIH TLV	Austria	Belgium	Czech
Tin 7440-31-5	2 mg/m ³ TWA 2 mg/m ³ TWA except tin hydride, as Sn	2 mg/m ³ MAK 4 mg/m ³ STEL 4 mg/m ³ STEL	2 mg/m ³ VLE 2 mg/m ³ VLE	2 mg/m ³ TWA
Silver 7440-22-4	0.1 mg/m ³ TWA	0.01 mg/m ³ MAK 0.1 mg/m ³ STEL	0.1 mg/m ³ VLE	0.1 mg/m ³ TWA
Copper 7440-50-8	0.2 mg/m ³ TWA fume 1 mg/m ³ TWA dust and mist, as Cu	0.1 mg/m ³ MAK 0.1 mg/m ³ MAK 0.4 mg/m ³ STEL 1 mg/m ³ MAK 4 mg/m ³ STEL	0.2 mg/m ³ VLE 1 mg/m ³ VLE	0.1 mg/m ³ TWA 1 mg/m ³ TWA

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

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

Hazardous components CAS No.	Poland	Spain	Sweden	UK EH40
Tin 7440-31-5	2 mg/m ³ NDS	2 mg/m ³ VLA-ED 2 mg/m ³ VLA-ED	0.1 mg/m ³ LLV 0.2 mg/m ³ STV	2 mg/m ³ TWA 4 mg/m ³ STEL
Silver 7440-22-4	0.05 mg/m ³ NDS	0.1 mg/m ³ VLA-ED	0.1 mg/m ³ LLV	0.1 mg/m ³ TWA 0.3 mg/m ³ STEL
Copper 7440-50-8		0.2 mg/m ³ VLA-ED 1 mg/m ³ VLA-ED	0.2 mg/m ³ LLV 1 mg/m ³ LLV	0.2 mg/m ³ TWA 1 mg/m ³ TWA 0.6 mg/m ³ STEL 2 mg/m ³ STEL
Modified rosin				Rosin flux fume: 0.05 mg/m ³ MEL TWA (As total resin acids) 0.15 mg/m ³ MEL STEL (As total resin acids)

Engineering controls:	Ensure adequate ventilation, especially in confined areas. Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Respiratory protection:	In case of insufficient ventilation, wear suitable respiratory equipment.
Skin protection:	No special protective equipment required.
Eye/face protection:	Safety glasses should be worn.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	solid
Colour:	grey
Odour:	none
pH:	not applicable
Vapour pressure:	negligible vapour pressure at ambient temperatures
Melting point/range:	217°C (423°F) (solder alloy)
Specific gravity:	7.5
Vapour density:	not applicable
Flash point:	not applicable
Solubility in water:	insoluble
Partition coefficient (n-octanol/water):	not determined

10. STABILITY AND REACTIVITY

Stability:	Stable under recommended storage conditions.
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Hazardous polymerisation: Will not occur.

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

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

11. TOXICOLOGICAL INFORMATION

Inhalation: Fumes evolved at soldering temperatures will irritate the nose, throat and lungs. Prolonged or repeated exposure to flux fumes may result in sensitisation in sensitive workers.

Skin: Fumes emitted during soldering may irritate the skin.

Eyes: Fumes emitted during soldering may irritate the eyes.

Ingestion: This material is considered to have low toxicity if swallowed.

12. ECOLOGICAL INFORMATION

Mobility: No data available.

Bioaccumulation: No data available.

Ecotoxicity: No information available.

Persistence and degradability: Not inherently biodegradable.

WGK Water Classification (VwVwS): Class 1

13. DISPOSAL CONSIDERATIONS

Product Disposal methods: Wherever possible unwanted solder pastes should be recycled for recovery of metal. Otherwise dispose of in accordance with local and national regulations.

European Waste Catalogue: 16 03 03 - inorganic wastes containing dangerous substances.

Packaging Disposal Methods: Dispose of as unused product.

14. TRANSPORT INFORMATION

ICAO/IATA (Air):

Identification number: None
Proper shipping name: Not regulated
Hazard class or division: None
Packing group: None

IMO/IMDG (Sea)

Identification number: None
Proper shipping name: Not regulated
Hazard class or division: None
Packing group: None

ADR/RID (Road/Rail)

UN Number: None
Proper shipping name: Unrestricted
Hazard class or division: None
Packing group: None

15. REGULATORY INFORMATION

Indication of danger: None.

Risk Phrases: None.
Safety Phrases: None

Additional Labelling: Avoid breathing fumes given out during soldering. Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma). After handling solder wash hands with soap and water before eating, drinking or smoking. Keep out of reach of children.

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
IND (G)248L: Solder fume and you(G)249L: Controlling health risks from rosin (colophony) based solder fluxes

16. OTHER INFORMATION

Supersedes Sheet Dated: 05/12/2005

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MSDS data Revised: 18/05/2006

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. 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. Attention of users is drawn to the possible hazards from improper use of the product(s). 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
Not applicable.