MULTICORE SOLDERS
A Division of Henkel Loctite Adhesives Limited
Health & Regulatory Affairs

This safety data sheet has been prepared in accordance with the requirements of the Chemicals (Hazard Information and Packaging for Supply) Regulations 2002 which implement EC Directives 1999/45/EC and 2001/58/EC, and provides information relating to the safe handling and use of the product.

1. PRODUCT AND COMPANY IDENTIFICATION

Product Code	Multicore Sn62EN 381
Manufacturer/Supplier	HLA Multicore
Address	Kelsey House, Wood Lane End, Hemel Hempstead, Hertfordshire, HP2 4RQ, UK
Phone Number	+44 (0) 1442 233233
Fax Number	+44 (0) 269554
Emergency Phone Number	+44 (0) 1442 233233

2. COMPOSITION/INFORMATION ON INGREDIENTS

Nature Flux-cored solder wire

Hazardous Components in Product for EC

Component Name	CAS	EINECS	Concentration	R Phrases	Classification
Tin/Lead/Silver alloy	-	-	95 - 100	-	-
Rosin	8050-09-7	232-475-7	1 - 5	R43	Xi

3. HAZARD IDENTIFICATION

The flux fumes given off during reflow will irritate the eyes, nose and respiratory system. Prolonged or repeated exposure to flux fumes may cause an asthmatic reaction in sensitive individuals. Contact with flux residues may cause skin irritation and sensitisation. Solder alloys containing lead give off negligible lead fume at normal soldering temperatures and at temperatures up to 500°C. Lead is harmful if absorbed into the body and can cause lead poisoning, birth defects and other reproductive harm.

4. FIRST AID MEASURES

First Aid - Inhalation
Remove patient to fresh air. In case of respiratory difficulty seek medical attention.

First Aid - Skin
Wash with plenty of soap and water. If irritation persists, seek medical advice.

First Aid - Eyes
Flush eyes with plenty of water for at least 15 minutes. If irritation persists seek medical attention.

First Aid - Ingestion
Seek medical advice.

5. FIRE FIGHTING MEASURES

Use water spray, alcohol resistant foam, dry powder or carbon dioxide. Do not use water on molten metal. High temperatures may produce toxic fumes and vapours containing heavy metals. The flux will evolve irritating fumes. Wear self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Not applicable.

7. HANDLING AND STORAGE

Handling
Use in a well ventilated area. Do not eat, drink or smoke during use. Wash hands after handling

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solder wire.

Storage

Store in a cool, dry area. Keep out of reach of children and away from food and drink.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Occupational exposure limits

Lead	0.15 mg/m^3
Rosin flux fume (as total resin acids)	MEL: 0.05 mg/m^3 8h TWA. MEL: 0.15 mg/m^3 15 min.

Extraction is necessary to remove fumes evolved during reflow.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Solid
Colour	Grey
Odour	None
pH	Not applicable
Boiling Range/Point (°C)	Lead fume will be significant above 500°C
Melting point (°C)	179 (solder alloy)
Flash Point (CC) (°C)	None
Specific Gravity	8.5
Solubility in Water (kg/m³)	Insoluble
Solubility in Acetone	Insoluble
Vapour Pressure (mmHg @ 25°C)	None
Explosion Limits (%)	Not applicable

10. STABILITY AND REACTIVITY

Stable under normal conditions. Solder alloy will react with concentrated nitric acid to produce toxic fumes of nitrogen oxides. Toxic effects may be delayed, sudden and severe. Obtain medical attention urgently.

11. TOXICOLOGICAL INFORMATION

Inhalation

The product does not present a risk at ambient temperatures. The flux fumes evolved during soldering will irritate the nose, throat and lungs. Repeated or prolonged exposure to flux fumes may cause an allergic affect which may lead to occupational asthma.

Skin

Contact with flux fumes and flux residues may cause irritation and sensitisation.

Eyes

Flux fumes may cause irritation.

Ingestion

Chronic overexposure to lead may result in damage to the blood forming, nervous, urinary and reproductive systems. Severe lead toxicity will cause sterility, abortion and neonatal mortality and morbidity.

12. ECOLOGICAL INFORMATION

The product is not biodegradable.

13. DISPOSAL CONSIDERATIONS

Wherever possible unwanted solder wire should be recycled for recovery of metal. Otherwise dispose of in accordance with local and national regulations.

14. TRANSPORT INFORMATION

UN Number	None
AIR (IATA)	Not classified
Sea (IMO)	Not classified
Road (ADR)/Rail(RID)	Not classified

15. REGULATORY INFORMATION

Contains Not applicable

Labelling Information Not classified

R phrases None

S phrases None

Voluntary Labelling

Contains lead which may harm your health. Lead can cause birth defects and other reproductive harm.

Regulations forbid the use of lead containing solder in any private or public drinking water supply system.

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 and smoking.

Keep out of reach of children.

Hazardous Components in Product for EC

Component Name	R Phrases
Rosin	R43
R43	May cause sensitisation by skin contact.

Applicable EC Directives

Directive 98/24/EC on the protection of the health and safety of workers from the risk related to exposure to chemicals at work (Chemical Agents Directive)

Applicable UK Legislation and guidance

The Health and Safety at Work etc. Act 1974
The Control of Substances Hazardous to Health Regulations 2002
The Control of Lead at Work Regulations 2002

L5	Approved Codes of Practice to the COSHH Regulations.
L132	Approved Code of Practice to the Control of Lead at Work Regulations
EH40	Occupational Exposure Limits (revised annually)
HS G 37	An Introduction to Local Exhaust Ventilation.
HS G 61	Surveillance of People Exposed to Health Risks at Work.
HS G 97	A Step by Step Guide to the COSHH Regulations.
HS G 193	COSHH essentials: Easy steps to control chemicals.
L55	Preventing Asthma at Work: How to Control Respiratory Sensitisers.
MS24	Medical Aspects of Occupational Skin Diseases.
MS25	Medical Aspects of Occupational Asthma.
INDG 95L	Respiratory Sensitisers: A Guide for Employers.

INDG 172L	Breathe Freely - A Workers' Information Card on Respiratory Sensitisers.
INDG 248L	Solder Fume and You.
INDG 249L	Controlling Health Risks from Rosin (Colophony) Based Solder Flux Fume.
MDHS 83	Methods for the Determination of Hazardous Substances. Resin Acids in Rosin (Colophony) Solder Flux Fume.

16. OTHER INFORMATION

MSDS data revised 30 May 2003

Prepared by:

Barry Chase
Senior Specialist
Health & Regulatory Affairs

Further Information may be obtained from:-

HLA Multicore
Wood Lane End
Hemel Hempstead
Herts HP2 4RQ]
United Kingdom

Tel: +44 (0) 1442 233233
Fax: +44 (0) 1442 269554

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This safety data sheet was prepared in accordance with Commission Directive 2001/59/EC adapting to technical progress for the 28th time Council Directive 67/548/EEC and Commission Directive 1999/45/EC.