Safety Data Sheet according to (EC) No 1907/2006

sds no. : 175674
V003.2

60EN CRYSTAL 400 5C

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier
60EN CRYSTAL 400 5C

1.2. Relevant identified uses of the substance or mixture and uses advised against
Intended use:
Solder Wire

1.3. Details of the supplier of the safety data sheet
Henkel Limited
2 Bishop Square Business Park
AL109EY Herfordshire Hatfield

Great Britain

Phone: +44 1606 593933
Fax-no.: +44 1606 863762

ua-productsafety.uk@uk.henkel.com

1.4. Emergency telephone number
24 Hours Emergency Tel: +44 (0)1442 278497

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (DPD):
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.

2.2. Label elements

Label elements (DPD):
The product is not subject to classification according to the calculation methods of the "General Classification Guideline for Preparations of the EC" as issued in the last version.

Additional labeling:
Safety data sheet available for professional user on request.

2.3. Other hazards
Flux fumes emitted during reflow will irritate the nose and throat and may cause an asthmatic type reaction.
This product contains modified rosin.
Regulations forbid the use of lead solder in any private or public drinking water supply system.

SECTION 3: Composition/information on ingredients

Declaration of the ingredients according to CLP (EC) No 1272/2008:

No data available.

Declaration of ingredients according to DPD (EC) No 1999/45:

Hazardous components CAS-No.	EC Number REACH-Reg No.	content	Classification
Tin 7440-31-5	231-141-8 01-2119486474-28	50 - 60 %	
Lead 7439-92-1	231-100-4 01-2119513221-59	30 - 40 %	

For full text of the R-Phrases indicated by codes see section 16 'Other Information'.
Substances without classification may have community workplace exposure limits available.

SECTION 4: First aid measures

4.1. Description of first aid measures

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

Skin contact:
Rinse with running water and soap.
Obtain medical attention if irritation persists.

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 advice.

4.2. Most important symptoms and effects, both acute and delayed
Flux fumes may irritate the nose, throat and lungs and may after prolonged/repeated exposure give an allergic reaction (asthma).

4.3. Indication of any immediate medical attention and special treatment needed
See section: Description of first aid measures

SECTION 5: Firefighting measures

Combustion behaviour:
The product itself does not burn. Any fire extinguishing action should be appropriate to the surroundings.

5.1. Extinguishing media

Extinguishing media which must not be used for safety reasons:
Do not use water on fires where molten metal is present.

5.2. Special hazards arising from the substance or mixture
High temperatures may produce heavy metal dust, fumes or vapours.
The flux medium will give rise to irritating fumes.

5.3. Advice for firefighters
Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures
Wear protective equipment.

6.2. Environmental precautions
Do not empty into drains / surface water / ground water.

6.3. Methods and material for containment and cleaning up
Scrape up spilled material and place in a closed container for disposal.

6.4. Reference to other sections
See advice in chapter 8

SECTION 7: Handling and storage

7.1. Precautions for safe handling
Extraction is necessary to remove fumes evolved during reflow.
When using do not eat, drink or smoke.
Wash hands before breaks and immediately after handling the product.
See advice in chapter 8
Avoid breathing fumes given out during soldering.

Hygiene measures:
Good industrial hygiene practices should be observed.
Do not eat, drink or smoke while working.
After handling solder wash hands with soap and water before eating, drinking or smoking.

7.2. Conditions for safe storage, including any incompatibilities
Ensure good ventilation/extraction.
Store in a cool, dry place.

7.3. Specific end use(s)
Solder Wire

SECTION 8: Exposure controls/personal protection

8.1. Control parameters
Valid for
Great Britain

Ingredient	ppm	mg/m³	Type	Category	Remarks
TIN (INORGANIC COMPOUNDS AS SN) 7440-31-5		2	Time Weighted Average (TWA):	Indicative	ECTLV
INORGANIC LEAD AND ITS COMPOUNDS 7439-92-1		0,15	Time Weighted Average (TWA):		EU_OEL
LEAD AND ITS IONIC COMPOUNDS 7439-92-1			Biological Limit Value:		EU_OEL_II
LEAD AND LEAD COMPOUNDS, OTHER THAN LEAD ALKYLS (AS PB) 7439-92-1		0,15	Time Weighted Average (TWA):		EH40 WEL

Colophony (Rosin) and derivatives: Rosin-based flux fume as total resin acids.

8.2. Exposure controls:

Engineering controls:
Extraction is necessary to remove fumes evolved during reflow.
Where reasonably practicable this should be achieved by the use of local exhaust ventilation and good general extraction.
Ensure good ventilation/extraction.

Respiratory protection:
Ensure adequate ventilation.
An approved mask or respirator fitted with an organic vapour cartridge should be worn if the product is used in a poorly ventilated area
In case of aerosol formation, we recommend wearing of appropriate respiratory protection equipment with ABEK P2 filter.
This recommendation should be matched to local conditions.

Hand protection:

Please note that in practice the working life of chemical resistant gloves may be considerably reduced as a result of many influencing factors (e.g. temperature). Suitable risk assessment should be carried out by the end user. If signs of wear and tear are noticed then the gloves should be replaced.

The use of chemical resistant gloves such as Nitrile are recommended.

Eye protection:

Safety glasses with sideshields or chemical safety goggles should be worn if there is a risk of splashing.

Skin protection:

Wear suitable protective clothing.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	solid grey
Odor	None
pH	not applicable
Initial boiling point	Not determined
Flash point	Not applicable
Decomposition temperature	No data available / Not applicable
Vapour pressure	Not determined
Density ()	8,5000 g/cm3
Bulk density	No data available / Not applicable
Viscosity	No data available / Not applicable
Viscosity (kinematic)	No data available / Not applicable
Explosive properties	No data available / Not applicable
Solubility (qualitative)	Insoluble
Solidification temperature	No data available / Not applicable
Melting point	183,0 - 188,0 °C (361.4 - 370.4 °F)
Flammability	No data available / Not applicable
Auto-ignition temperature	No data available / Not applicable
Explosive limits	No data available / Not applicable
Partition coefficient: n-octanol/water	Not applicable
Evaporation rate	No data available / Not applicable
Vapor density	No data available / Not applicable
Oxidising properties	No data available / Not applicable

9.2. Other information

No data available / Not applicable

SECTION 10: Stability and reactivity

10.1. Reactivity

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

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

See section reactivity

10.4. Conditions to avoid

No decomposition if stored and applied as directed.

10.5. Incompatible materials
None if used properly.

10.6. Hazardous decomposition products
Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

General toxicological information:
The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

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

Inhalative toxicity:
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.

Dermal toxicity:
This product is considered to have low dermal toxicity.

Skin irritation:
Fumes emitted during soldering may irritate the skin.

Eye irritation:
Fumes emitted during soldering may irritate the eyes.

SECTION 12: Ecological information

General ecological information:
The preparation is classified based on the conventional method outlined in Article 6(1)(a) of Directive 1999/45/EC. Relevant available health/ecological information for the substances listed under Section 3 is provided in the following.

Ecotoxicity:
May cause long-term adverse effects in the aquatic environment.

Mobility:
The product is insoluble and sinks in water.

Persistence and Biodegradability:
The product is not biodegradable.

Bioaccumulative potential:
Octanol/Water distribution coefficient: Not applicable

SECTION 13: Disposal considerations

13.1. Waste treatment methods
Product disposal:
Wherever possible unwanted solder alloy should be recycled for recovery of metal.
Otherwise dispose of in accordance with local and national regulations.

Disposal of uncleaned packages:
Dispose of as unused product.

Waste code
06 04 05 - wastes containing other heavy metals

SECTION 14: Transport information

General information:
Not hazardous according to RID, ADR, ADNR, IMDG, IATA-DGR.

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

VOC content < 5,0 %

National regulations/information (Great Britain):

Remarks

The Health & Safety at Work Act 1974.
The Control of Lead at Work Regulations. L132:Control of Lead at Work: Approved Code of Practice and Guidance.
The Control of Substances Hazardous to Health Regulations. 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. IND(G)249L:Controlling health risks from rosin (colophony) based solder fluxes.
Employees should be under medical surveillance if the risk assessment made under the Control of Lead at Work Regulations indicates they are likely to be exposed to significant concentrations of lead, or if an Employment Medical Advisor or appointed doctor so certifies.
A woman employed on work which exposes her to lead should notify her employer as soon as possible if she becomes pregnant. The Employment Medical Advisor / Appointed Doctor should be informed of the pregnancy.
Under the Management of Health and Safety at Work Regulations, employers are required to assess the particular risks to health at work of pregnant workers and workers who have recently given birth or who are breast feeding.
UK National Health & Safety Regulations: The Control of Lead at Work Regulations 2002

SECTION 16: Other information

Further information:

This information is based on our current level of knowledge and relates to the product in the state in which it is delivered. It is intended to describe our products from the point of view of safety requirements and is not intended to guarantee any particular properties.
This safety data sheet was prepared in accordance with Council Directive 67/548/EEC and it's subsequent amendments, and Commission Directive 1999/45/EC.