

iBVD

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5562742758-00124  
Version  
1

Skapad  
2019-04-01  
Status  
2019-04-05



Uppgiftslämnaren reserverar sig för eventuella fel i produktinformationen eller felaktigt registrerade uppgifter och förbehåller sig rätten att korrigera och/eller komplettera produktinformation utan föregående avisering

## 1 GRUNDDATA

### Varubeskrivning

Rumstermostat i trådlöst (RF) eller trådförbundet (W) utförande med bakgrundsbelyst display för enkel och tydlig funktionsvisning.

Displayen visar bl.a. inställd och verklig temperatur, värme till/från, driftläge samt ev. felmeddelanden.

För bästa energieffektivitet arbetar rumstermostaten med s.k. självmoduleringsteknik via signalpulsning till ventilställdonen. Självmoduleringsteknik innebär att termostaten anpassar avgiven effekt i förhållande till inställd temperatur. När temperaturen i rummet närmar sig inställd rumstemperatur minskas den avgivna effekten för att undvika övertemperaturer. Därigenom minimeras energiförbrukningen.

Vid användning av termostatens nattsänkning-/ spartemperaturfunktion arbetar den med adaptiv (självlärande) funktion. Knapparna är låsbara och på så vis kan termostaten även användas i offentlig miljö. Möjlighet finns för inkoppling av golvgivare (läs mer under LK Extern givare ICS/S2). Vidare finns funktioner som Braskaminsfunktion, Områdesbegränsning av temperaturspann, Bypassinställning av golvvärmekrets m.m. Rumstermostaten används tillsammans med LK Mottagarenhet 1 ICS.2 och LK Mottagarenhet 8 ICS.2.

Rumstermostaten finns i färgerna högblank vit, silvergrå eller högblank svart.

ENDAST kompatibel med ICS.2-serien.

### Övriga upplysningar

#### Klassificeringar

ETIM ›	-EC003263 - Intelligent temperaturstyrning
BK04 ›	-20506 - Golvvärme vattenburen
BSAB ›	-P - P - Apparater, ledningar m m i rörsystem eller rörledningsnät
UNSPSC ›	

## Leverantörsuppgifter

**Företagsnamn**

LK Systems AB

**Organisationsnummer**

5562742758

**Adress**

Johannesfredsvägen 7

**Hemsida**

www.lksystems.se

**Miljökontaktperson****Namn**

Hans Bramevik

**Telefon**

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## 2

## HÅLLBARHETSARBETE

### Företagets certifiering

■ ISO 9000

■ ISO 14000

### Policys och riktlinjer

## 3

## INNEHÅLLSDEKLARATION

Kemisk produkt	Nej
Omfattas varan av RoHS-direktivet	Ja
Innehåller produkten tillsatt nanomaterial, som är medvetet tillsatta för att uppnå en viss funktion	Nej
Varans vikt	0,113 - kg

### Vara / Delkomponenter

Koncentrationen har beräknats på hela varan

Ingående material /komponenter	Vikt-% i komponent	CAS-nr (alt legering)	EG-nr (alt legering)	Vikt % i produkt	Kommentar
Elektronik (Kretskort/mönsterkort)	23,39%	Övrigt, elektronik		23,39%	SMD components: RF Microcontroller, crystal, dual opamp, capacitors, diods, ferrite beads, mosfets, resistors, transistors, voltage regulators. All compliant with RoHSDisplayLK

					Membrane Tape RUPlug-in conn 2-way R5 HORIZ 5ESDP-02P (550 000 063) M3 Screw, galvanized steel Body, PA 6.8 (V0-UL94) Clamp & terminal, nickeled brass Female conn SHS02-5 2-way (55A031) Acc standard EN 60998-1, EN 60998-2-1, EN 61984, UL1059Plug-in header PVS24- 5-L 24-way R=5mm (555 000 189) Terminal, tin- plated copper alloy Insulator Body PA 66 GF 35 (V0-UL94)Acc standard EN 60998-1, EN 60998-2-1, EN 61984, UL1059
Etiketter	0,1%			0,1%	Paper stickers Plastic stickers
Lödtenn	0,5%	Övrigt, metaller		0,5%	Se bifogad MSDS för Alpha Vaculoy Solder Bar SACX0307
Lödtenn	0,5%	Övrigt, metaller		0,5%	Se datablad för lödtenn, Heraeus F640 (Solder Paste F 640 SA 30 C 5 - 89 M 30)
Rubber, silicone	0,01%	63394-02-5	Saknas	0,01%	
Polykarbonat, PC, Poly[oxycarbonyloxy-1,4- phenylene(1- methylethylidene)-1,4- phenylene]	32%	24936-68-3	Saknas	32%	PC Infino 1220R Samsung Colorant Deltaplast CSN 50310
Polykarbonat	23,9%	24936-68-3	Saknas	23,9%	PC makrolon 6557 010180 Flame retardant compliant with VO
Glasfiber	19,6%	65997-17-3	266-046-0	19,6%	FR-4 (woven glass and epoxy)

Del av materialinnehållet som är deklarerat

100%

### Särskilt farliga ämnen

Varan innehåller INTE några ämnen med särskilt farliga egenskaper (Substances of very high concern, SVHC-ämnen) som finns med på kandidatförteckningen i en koncentration som överstiger 0,1 vikts-%

### Utgåva av kandidatförteckningen som har använts

2019-04-01 00:00:00

### Övrigt

Ämnen är redovisade ned till 0.01 viktprocent enligt iBVDs redovisningskrav. Eventuell avvikelse från redovisningskraven redovisas nedan

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## RÅVAROR

### Återvunnet material

Innehåller varan återvunnet material: Nej

### Träråvara

Träråvara ingår i varan: Nej

5

## MILJÖPÅVERKAN

Finns en miljövarudeklaration framtagen enligt EN15804 eller ISO14025 för varan

Nej

Finns annan miljövarudeklaration

Nej

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## DISTRIBUTION

Beskrivning av emballagehantering för distribution av varan

Förpackningsmaterial är kartong. LK Systems är ansluten till FTI

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## BYGGSCHEDET

Ställer varan särskilda krav vid lagring?

Ja

Inomhus och torrt

Ställer varan särskilda krav på omgivande bygghvaror?

Nej

## 8

## BRUKSSKEDET

Finns skötselanvisningar/skötselråd?	Nej
Finns en energimärkning enligt energimärkningsdirektivet (2010/30/EU) för varan?	Nej

## 9

## RIVNING

Kräver varan särskilda åtgärder för skydd av hälsa och miljö vid rivning/demontering?	Nej
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## 10

## AVFALLSHANTERING

Omfattas den levererade varan av förordningen (2014:1075) om producentansvar för elektriska och elektroniska produkter när den blir avfall?	Ja
Är återanvändning möjlig för hela eller delar av varan?	Ja
Går att återmontera	
Är materialåtervinning möjlig för hela eller delar av varan?	Ja
Sorteras som elavfall	
Är energiåtervinning möjlig för hela eller delar av varan?	Nej
Har leverantören restriktioner och rekommendationer för återanvändning, material- eller energiåtervinning eller deponering?	Nej
När den levererade varan blir avfall, klassas den då som farligt avfall?	Nej
Avfallskod (EWC) för den levererade varan	160214

RSK-nummer	Eget Artikel-nr	GTIN
243 46 21		7331590038238
243 46 22		7331590038276
243 46 23		7331590038252

**Produktdatablad**

**Prestandadeklaration**

**Säkerhetsblad**

**Miljövarudeklaration**

**Skötselansvisning**

**Övriga bifogade dokument**

-Alpha Vaculoy Solder Bar SACX0307.pdf

-heareus-lead-F640\_Datasheet.pdf

# SAFETY DATA SHEET



## Alpha Vaculoy Solder Bar SACX0307 1 Kg

### 1. Identification of the substance/preparation and of the company/undertaking

**Product name** : Alpha Vaculoy Solder Bar  
SACX0307 1 Kg

**Code** : 53549

**Head Office** : **Cookson Electronics** **Manufacturer** : Cookson Electronics Assembly  
Materials Group  
Forsyth Road Naarden Manufacturing Site  
Sheerwater Energiestraat 21  
Woking 1411 AR Naarden  
Surrey The Netherlands  
England  
GU21 5RZ  
Tel: +44(0)1483 758400  
Fax: +44(0)1483 728837  
Tel: +31 (35) 695 5411  
Fax: +31 (35) 694 8451

### 2. Composition/information on ingredients

**Substance/Preparation** : Preparation

Chemical name*	CAS no.	%	EC Number	Classification
Europe tin	7440-31-5	80-100	231-141-8	
See Section 16 for the full text of the R Phrases declared above				

\* Occupational Exposure Limit(s), if available, are listed in Section 8

### 3. Hazards identification

The preparation is not classified as dangerous according to Directive 1999/45/EC and its amendments.

**Skin contact** : Irritation of the product in case of skin contact: Not available. Sensitization of the product: Not available.

**Aggravating conditions** : Repeated or prolonged exposure is not known to aggravate medical condition.

### 4. First-aid measures

#### First-Aid measures

- Inhalation** : If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Obtain medical attention.
- Ingestion** : Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.
- Skin contact** : In case of contact, immediately flush skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Clean shoes thoroughly before reuse. Obtain medical attention.
- Eye Contact** : Check for and remove any contact lenses. In case of contact, immediately flush eyes with a copious amount of water for at least 15 minutes. Obtain medical attention.

### 5. Fire-fighting measures

#### Extinguishing Media

**Suitable** : Not applicable.

**Special fire-fighting procedures** : Fire fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.



## 6. Accidental release measures

- Personal Precautions** : Safety glasses. Boots. Gloves. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.
- Environmental precautions and cleanup methods** : Use a shovel to put the material into a convenient waste disposal container. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.

**Note:** See section 8 for personal protective equipment and section 13 for waste disposal.

## 7. Handling and storage

- Handling** : No specific safety phrase has been found which is applicable for this product.
- Storage** : Keep container in a cool, well-ventilated area.
- Packaging materials**
- Recommended use** : Use original container.
- Danish Fire Class** : Not applicable.

## 8. Exposure controls/personal protection

- Engineering measures** : Use process enclosures, local exhaust ventilation, or other engineering controls to keep airborne levels below recommended exposure limits. If user operations generate dust, fume or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit.
- Hygiene measures** : Wash hands after handling compounds and before eating, smoking, using lavatory, and at the end of day.

<u>Ingredient Name</u>	<u>Occupational Exposure Limits</u>
<b>Europe</b> tin	<b>ACGIH TLV (United States, 2002).</b> TWA: 2 mg/m <sup>3</sup> 8 hour(s).
<b>Sweden</b>	
<b>Denmark</b>	
<b>Norway</b>	
<b>France</b>	
<b>Netherlands</b> tin	<b>Nationale MAC-lijst (Netherlands, 2001). Notes: Tentative</b> TGG 8 uur: 2 mg/m <sup>3</sup> 8 hour(s).
<b>Germany</b> tin	<b>TRGS900 MAK (Germany, 2002).</b> TWA: 2 mg/m <sup>3</sup> 8 hour(s).
<b>Finland</b> tin	<b>Työterveyslaitos (Finland, 2002).</b> TWA: 2 mg/m <sup>3</sup> 8 hour(s).
<b>United Kingdom (UK)</b> tin	<b>EH40-OES (United Kingdom (UK), 2002).</b> TWA: 2 mg/m <sup>3</sup> 8 hour(s). STEL: 4 mg/m <sup>3</sup> 15 minute(s).
<b>Austria</b> tin	<b>BMWA_MAK (Austria, 2001).</b> STEL: 4 mg/m <sup>3</sup> 4 times per shift, 15 minute(s). TWA: 2 mg/m <sup>3</sup> 8 hour(s).
<b>Switzerland</b>	
<b>Belgium</b> tin	<b>Lijst Grenswaarden (Belgium, 1998). Skin</b> VL: 2 mg/m <sup>3</sup> 8 hour(s).
<b>Spain</b> tin	<b>INSHT (Spain, 2001).</b> TWA: 2 mg/m <sup>3</sup> 8 hour(s).

### Personal protective equipment

## Alpha Vaculoy Solder Bar SACX0307 1 Kg

**Skin and body** : Lab coat.  
**Eyes** : Safety glasses.

## 9. Physical and chemical properties

**Physical state** : Solid.  
**Colour** : Silvery.  
**Odour** : Not available.  
**pH** : Not applicable.  
**Melting point** : 231.8°C (449.2°F) based on data for: tin.  
**Flash point** : Not applicable.  
**Explosive properties** : Risks of explosion of the product in presence of mechanical impact: Not available.  
Risks of explosion of the product in presence of static discharge: Not available.  
**Oxidizing properties** : Not available.  
**Density** : The only known value is 7.31 g/cm<sup>3</sup> (tin).  
**Solubility** : Insoluble in cold water, hot water.

## 10. Stability and reactivity

**Stability** : The product is stable.  
**Hazardous decomposition products** :

## 11. Toxicological information

**Local effects**  
**Chronic toxicity** : Repeated or prolonged exposure is not known to aggravate medical condition.

## 12. Ecological information

## 13. Disposal considerations

**Methods of disposal ; Waste of residues ; Contaminated packaging** : Waste must be disposed of in accordance with federal, state and local environmental control regulations.  
**Waste Classification** : Not applicable.  
**European Waste Catalogue (EWC)** : Not available.  
**Hazardous Waste** : To present knowledge of the supplier, this product is not regarded as hazardous waste as defined by EU Directive 91/689/EC.

## 14. Transport information

### International transport regulations

Regulatory Information	UN number	Proper shipping name	Class	Packing group	Label	Additional Information
ADR/RID Class	Not regulated.	-	-			-
IMDG Class	Not regulated.	-	-			-
IATA-DGR Class	Not regulated.	-	-			-

## 15. Regulatory information

### EU Regulations

- Risk Phrases** : This product is not classified according to the EU regulations.
- Product Use** : Classification and labelling have been performed according to EU directives 67/548/EEC, 1999/45/EC, including amendments and the intended use.  
- Industrial applications.
- Additional Warning Phrases** : Safety data sheet available for professional user on request.
- EC Statistical Classification (Tariff Code)** : 32089091

### National regulations

#### Denmark

- Additional Warning Phrases** : Not applicable.
- Denmark – Cancer Risks** : Not available.
- Denmark – Restrictions on Use** : Not available.
- Statutory Order 571 on Aerosols** : Not applicable.

#### Netherlands

- K-Klasse** : K5
- CPR** : Not regulated.
- SHHR** : 0ZZ

#### Germany

- Employment restrictions in accordance with § 15b of the Hazardous Substance Ordinance** : No.
- Hazardous Incident Ordinance** : No.
- Ordinance on Combustible Liquids** : Class: Omitted
- Technical instruction on air quality control** : Class III 3.1.4: 0.7%
- Hazard class for water** : nwg

## 16. Other information

- Full text of R-Phrases with no. appearing in Section 2 - Europe** :  
**Text of classifications appearing in Section 2 - Europe** :

### HISTORY

- Date of printing** : 07/04/2004.
- Date of issue** : 07/04/2004.
- Date of previous issue** : No Previous Validation.
- Version** : 2
- Prepared by** : **Simon Hosken**  
Environmental, Health and Safety Manager

### Notice to Reader

*To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.*

## Technical Data Sheet

# Lead free Solder Paste Series F 640



## No Clean Solder Pastes with excellent wetting

### 1. Description

F 640 Solder Paste series is a state-of-the-art lead free no clean solder paste that promotes wetting and minimises soldering defects. The F 640 flux system is specifically optimised for Sn/Ag/Cu alloy soldering. Extensive testing at customer locations has proven this paste to be capable of defect-free performance in the production environment.

The F 640 Series exhibits minimal slump and has excellent print-after-wait performance.

This formula provides superior performance on a variety of surfaces finishes and leaves behind a clear residue. Reflow can be accomplished in air or nitrogen.

### Key Benefits

- Exceptional print to print consistency
- Excellent wetting
- Min. 8 hour tack and work life
- Very good print after wait performance
- SIR 85/85 > 10E10 Ohm
- Constant performance at 30°C for 7days
- Work conditions between 20 and 32°C
- Fulfils Siemens Standard accord. DIN EN 29454 Part 1 (see Test certificate from January 24, 2004)

### 2. Product Indication

<b>Indication:</b>	F640SAC Series
<b>Alloy:</b>	Sn95.5/Ag4/Cu0.5 (Standard) Sn96.5/Ag3/Cu0.5 (upon request) Other alloys are available on request.

### 3. Physical Properties

#### Metal powder:

<b>Particle size:</b>	Type 3 = 25 –45 microns (325/+500 mesh) Other powder sizes upon request.
<b>Shape:</b>	Spherical
<b>Melting Point:</b>	Sn95.5/Ag4/Cu0.5 = 217°C Sn96.5/Ag3/Cu0.5 = 217°C
<b>Composition:</b>	Sn95.5/Ag4/Cu0.5 = F640SA40C5-89M30 Sn96.5/Ag3/Cu0.5 = F640SA30C5-89M30 Other lead free alloys upon request.
<b>Density:</b>	Sn95.5/Ag4/Cu0.5 7,4 g/cc Sn96.5/Ag3/Cu0.5 7,4 g/cc

## Solder Paste:

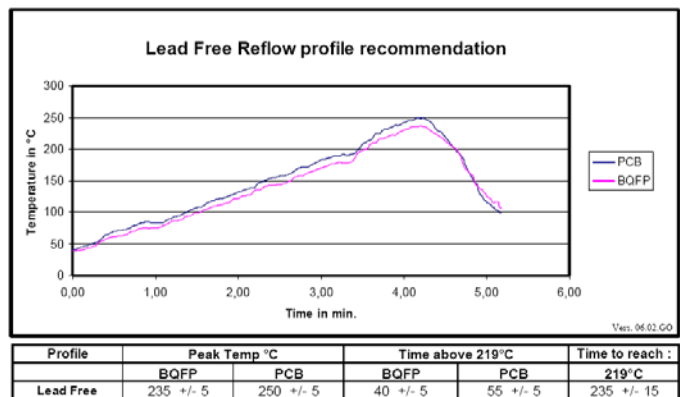
<b>Metal Content:</b>	Standard 89% ± 1%
<b>Viscosity Range:</b>	130 ± 40 Pas Physica CSS 10 s-1
<b>Density:</b>	3,9 ± 0,2 g/ml

## 4. Performance Properties

<b>Typical Print Thickness:</b>	0,4 – 0,65 mm pitch: 150 microns <0,4 mm pitch: 120 microns
<b>Minimum Pitch:</b>	16 mil (400 microns)
<b>Minimum Pad Width:</b>	8 mil (200 microns, stencil thickness 150microns)

## 5. Reflow Parameters (recommendation)

- For optimum results, the paste should be reflowed at a peak temperature of 15-30°C above the melting temperature of the alloy.
- Time above melting temperature should be maintained for 30-90 seconds.
- Heating should be uniform across the substrate and components.
- Reflow can be accomplished with any industry accepted process in air or N<sub>2</sub>.



## 6. Residue Properties

<b>Flux Activity:</b>	According to J-STD-004	L 0
	DIN EN 61190-1-1 ISO	1.2.2.C
<b>SIR:</b>	J-STD-004 > 1 x 10 <sup>8</sup>	pass
<b>Copper Mirror:</b>	J-STD-004	pass
<b>Silver Chromate Test Paper:</b>	J-STD-004	pass

## 7. Recommended Processing Guidelines

After reflow the flux residues may remain on the circuit. They do not need to be cleaned. If desired, the residues can be washed with various Zestron and Vigon cleaning materials.

For cleaning wet with different Zestron and Vigon cleaning materials see separate recommendations.

If the printing interval exceeds 1 hour, remove the paste from the stencil.

The printed solder paste remains tacky for more than 8 hours to allow device insertion. The exact time depends on environmental conditions.

If the printed circuit boards will be stored for more than 6 hours

after populating and prior to reflow, it is advisable to store the boards in a tightly closed area. This is especially important if the humidity exceeds 83%.

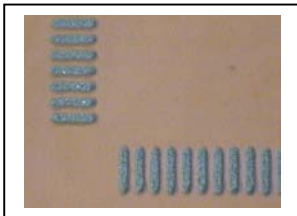
## 8. Storage

Store the solder paste in tightly-sealed jars and avoid exposure to sunlight and high humidity.

In jars:  
Min. 6 months in a refrigerator at 2-10°C (35-50°F)

In syringes:  
Min. 3 months in a refrigerator at 2-10°C (35-50°F)  
Store syringes tip down!

Paste is qualified at Siemens Corporate Technology Berlin.  
Print and Reflow conditions see technical information.



Pitch 0.4 on Cu substrate

The descriptions and engineering data shown here have been compiled by Heraeus using commonly-accepted procedures, in conjunction with modern testing equipment, and have been compiled as according to the latest factual knowledge in our possession. The information was up-to date on the date this document was printed (latest versions can always be supplied upon request). Although the data is considered accurate, we cannot guarantee accuracy, the results obtained from its use, or any patent infringement resulting from its use (unless this is contractually and explicitly agreed in writing, in advance). The data is supplied on the condition that the user shall conduct tests to determine materials suitability for a particular application.

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