



SAFETY DATA SHEET

July 2011

FDS 11.07

1. Name of substance / preparation and company

Product information

Item name : Solder Paste

Ref : F42 240

F42 241

For use by dispensing or printing onto printed circuit boards, joining of metal parts.

Company : CIF

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2. Hazards identification

-- Hazard description: Not applicable

-- Information concerning particular hazards for human and environment:

The product does not have to be labelled due to the calculation procedure of the "General Classification guideline for preparations of the EU" in the latest valid version.

The product could cause sensitisation if in prolonged contact with skin.

The product could cause irritation to eyes if in prolonged contact with eyes.

The product could cause irritation to respiratory system in case of prolonged inhalation of fumes.

-- Prevention:

It is recommended to wear safety glasses, latex gloves, to wash hands after use and to work with a good ventilation of area.

-- GHS label elements: None

3. Composition information on ingredients

Product composition: Mixture of 88.8% powder and 11.2% flux

Flux	N°CAS	N°EC	Phrases R	Phrases S	%
Modified rosin			-	-	20-100
Powder	N°CAS	N°EC	Phrases R	Phrases S	%
Tin	7440-31-5	231-141-8	-	-	90-99
Silver	7440-22-4	231-131-3	-	-	0-5
Coper	7440-50-8	231-159-6	-	-	0-5

4. First-aid measures

-- General information:

Immediately remove any clothing soiled by the product.

Take affected persons out into the fresh air.

Take affected persons out of danger area and lay down.

-- After inhalation:

In case of unconsciousness place patient stably in side position for transportation.

Take affected persons into fresh air and keep quiet.

-- After skin contact:

Immediately wash with water and soap and rinse thoroughly.

If skin irritation continues, consult a doctor.

If burns should occur from molten metal, treat for burn and get immediate medical assistance.

-- After eye contact: Rinse opened eye for several minutes under running water. Then consult a doctor.

-- After swallowing:

Call for a doctor immediately.

A person vomiting while laying on their back should be turned onto their side.

5. Fire-fighting measures

-- Suitable extinguishing agents: Dry powder or CO2.

-- Extinguishing agents to avoid: Do not use water on fire where molten metal is present.

-- Special hazards caused by the substance, its products of combustion or resulting gases:

Molten metal produces fumes or vapours that may be toxic and/or respiratory irritants.

Molten metal reacts violently with oxidising agents.

-- Protective equipment: Wear appropriate self-contained breathing apparatus.

Do not inhale explosion gases or combustion gases. Wear full body protective clothing.

6. Accidental release measures

-- Person-related safety precautions:

Remove persons from danger area.
Wear protective equipment. Keep unprotected persons away.
Use respiratory protective device against the effects of fumes/dust.

-- Measures for environmental protection:

Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.

-- Measures for cleaning/collecting:

Absorb with liquid-binding material.
Ensure adequate ventilation.

-- Additional information:

Overheating of alloy can produce metal fumes and oxides. Exposure levels indicated in section 8 are relevant to these and other operations.
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7. Handling and storage

- Handling:

When melted, the temperature should be kept as low as possible. In case of operations which generates dust or fume, either adequate ventilation must be provided, or the users must make use of approved respirators.

S20/21 = When using do not eat, drink or smoke.

S24/25 = Avoid contact with skin or eyes.

S37/39 = Wear suitable gloves and eye/face protection.

Wash hands after handling.

- Storage:

In original packaging at low temperature (5 to 10°C).
Keep packaging well closed and away from humidity.

8. Exposure controls/Personal protection

- Exposure control:

Permissible air concentration (mg/m³)

Product	PEL	REL	TLV
Tin	2.0	2.0	2.0
Silver	0.01	0.01	0.1
Copper	1	1	1
	0.1 (fume)	0.1 (fume)	0.2 (fume)

Additional information:

PEL = Permissible exposure limit (OSHA)

REL = Recommended exposure limit (NIOSH)

TLV = threshold Limit value (ACGIH)

OSHA= Occupational Safety and Health Administration

ACGIH= American Conference of Governmental Industrial Hygienists

NIOSH= National Institute for Occupational Safety and Health

-- Personal protective equipment:

-- General protective and hygienic measures:

The usual precautionary measures are to be adhered to when handling chemicals: do not smoke and eat at work place.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Do not inhale gases / fumes.

Avoid contact with the eyes and skin.

-- **Respiratory protection:** Use suitable respiratory protective device in case of insufficient ventilation.

-- **Protection of hands:**

- **Eye protection:** Safety glasses are recommended.

-- **Body protection:** Protective work clothing is recommended.

9. Physical and chemical properties

- **Form:** Paste

Alloy composition	Tin%	Copper %	Silver %	Solidus	Liquidus
Sn96.5Ag3Cu0.5	96.5	0.5	3	217°C	219°C

- **Working temperature:** Solidus 239°C – Liquidus 243°C

- **Density:** > 1

- **Solubility:** Alcohol

- **pH:** N/A

- **Flash point:** > 100°C

- **Auto-ignition:** > 350 °C

10. Stability and reactivity

- **Stability:** Stable.
- **Conditions to avoid:** Strong oxidisers may cause violent reaction.
- **Hazardous decomposition products:** At temperature above the melting point, toxic fumes or vapours may be emitted.

11. Toxicological information**- Carcinogenetic properties:**

This product has not been listed as a suspect carcinogen.

- Chronic overexposure (symptoms and effects):

Prolonged overexposure can result in systemic poisoning with symptoms of metallic taste, anaemia, insomnia, weakness, constipation, abdominal pain, gastrointestinal disorders, joint and muscle pain and muscular weakness, and may cause damage to the blood forming, nervous, kidneys and reproductive systems.

Damage may include reduced fertility in both men and women, damage to the foetus of exposed pregnant women, anaemia, muscular weakness and kidney dysfunction.

- Medical conditions possibly aggravated by exposure:

Diseases of the blood and blood forming organs, kidneys, nervous and possibility reproductive systems.

12. Ecological information**- General notes:**

Do not allow product to reach ground water, water course or sewage system.

13. Disposal consideration**- Product:****Recommendation:**

Disposal must be made according to official regulations.

- Uncleaned packaging:**Recommendation:**

Disposal must be made according to official regulations.

14. Transport information**- DOT regulations:**

Hazard class: -Not regulated.

- Land transport ADR/RID (cross-border):

ADR/RID class: -Not regulated.

- Maritime transport IMDG:

IMDG Class: -Not regulated.

Marine pollutant: No

- Air transport ICAO-TI and IATA-DGR:

ICAO/IATA Class: -Not regulated.

15. Regulatory information

The product does not require a hazard warning label in accordance with EC directives/French regulations on dangerous substances.

16. Other information

This material safety data sheet is entirely written in accordance with regulations in force.

Abbreviations and acronyms:

ADR: Accord européen sur le transport des marchandises Dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)

RID: Reglement internationale concernent le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

IATA-DGR: Dangerous Goods Regulations by the "International Air Transport Association" (IATA)

ICAO: International Civil Aviation Organization

ICAO-TI: Technical Instructions by the "International Civil Aviation Organization" (ICAO)

GHS: Globally Harmonized System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)