

1. IDENTIFICATION OF THE PRODUCT AND THE COMPANY.

1.1 Identification of the product.

| Product name | Norm | Alloy nº. | Description |
|--------------|-----------------|-----------|-----------------------|
| ECO 1 | UNE.EN ISO 9453 | 401 | S-Sn99.3 Cu 0.7 |
| ECO 2 | UNE.EN ISO 9453 | 702 | S-Sn97Ag3 |
| ECO 3 | UNE.EN ISO 9453 | 402 | S-Sn97Cu3 |
| ECO 4 | UNE.EN ISO 9453 | 711 | S-Sn96.5 Cu 0.5 Ag3 |
| ECO 5 | UNE.EN ISO 9453 | 501 | S-Sn99 Cu 0.7 Ag0.3 |
| ECO 6 | UNE.EN ISO 9453 | 713 | S-Sn95.5 Cu 0.7 Ag3.8 |
| ECO 7 | UNE.EN ISO 9453 | 703 | S-Sn96 Ag4 |

1.2 Relevant identified uses of the substance or mixture and non-advised uses.

Soft soldering, tinning of metals

1.3 Details of the supplier of the material safety data sheet.

BROQUETAS, S.L.
 C/ CAN SALLARES 12-16
 08740 SANT ANDREU DE LA BARCA
 BARCELONA – ESPAÑA
 TELF. 0034 936401900 FAX 0034 936300938
broquetas@broquetas.com

1.4 Emergencies.

93.640.19.00

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture.

Classification according to Regulation (CE nº1272/2008):



H302 Harmful if swallowed
 H315 Causes skin irritation
 H319 Causes serious eye irritation.
 H335 May cause respiratory irritation.

ECO

SOFT SOLFER ALLOY

Classification according to Directive 1999/45/CE

R20/22; R36/37/38

S2; S26; S36/37/39; S45;S61

2.2 Elements of the label.

Not applicable as point Annex I of Regulation REGULATION (CE) No 1272/2008

2.3 Other hazards.

The product does not contain any PBT substance (PBT = persistent, bio-accumulative, toxic/persistent, bio-accumulative and toxic substances respectively). It is not included in the Regulation 1907/2006 XIII (UE)



Phrases H Security

H302 Harmful if swallowed

H315 Causes skin irritation

H319 Causes severe eye irritation

H335 May cause respiratory irritation.

EUH phrases

EUH210 - Can I apply for safety data sheet.

Phrases P prudence

-Tips Statements - Prevention

P102 + P201 + P270 + P273 + P281.

-Tips Statements - response

P305 + P351 + P338 + P313

P304 + P340 + P313

P301 + P331 + P313

P302 + P352 + P362 + P313

-Tips Statements – Throw out

P501.

3. CHEMICAL COMPOSITION / DATA ON COMPONENTS

3.1 Substances.

3.2 Mixtures.

| Component | % Concentration | Symbol | CAS N° | EINECS N°: |
|-----------|-----------------|--------|-----------|------------|
| Tin | 95.5 - 99.3 | Sn | 7440-31-5 | 231-141-8 |
| Copper | 0 - 0.7 | Cu | 7440-50-8 | 231-159-6 |
| Silver | 0 - 4 | Ag | 7440-22-4 | 231-131-3 |

4. FIRST AID MEASURES

4.1 First aids description.

Inhalation: Bring the operative to breathe fresh air and ask a doctor.

Contact with the skin: Wash with water and soap.

Contact with eyes: Rinse out with abundant clear water and ask a doctor.

Ingestion: Under suitable conditions of use, the product is not ingestible. Wash out the mouth with water, do not induce up to vomit and consult immediately a doctor.

4.2 Main symptoms, acute effects and delayed effects

- May it cause slight irritation in the mouth and upper digestive tract. In the application doses it can be toxic and must be treated by a doctor immediately, don't induce to vomit.
- May it cause skin irritation especially if exposure is repeated or lengthened in time.
- May it cause eye irritation.
- May it cause irritation by inhalation of vapours during application, if the exposure is prolonged in a small and poorly ventilated space.

4.3 Indication of any doctor attention and special treatment needed immediately.

Not defined

5. FIRE FIGHTING MEASURES

5.1 Extinction measures.

Use powders, foams or pulverized water.

5.2 Specific dangers derived from the substance or mixture.

No, the product can not explode or become inflamed.

5.3 Advice for fire-fighters.

Use respiratory protective equipments

6. ACCIDENTAL RELEASE MEASURES.

6.1 Personal precautions, protective equipments and emergency procedures.

Follow measures prevention described in point 8.

6.2 Environmental precautions.

Avoid contact with drains and river beds.

6.3 Cleaning and containment method.

The product is solid. Mechanical methods should be used for collection.

6.4 Advice to other actions.

Not defined

7. HANDLING AND STORAGE.

7.1 Precautions for safe handling.

- Do not eat, drink or smoke. Maintain proper hygiene after handling.
- During the welding process the product reach high temperatures so suitable gloves must be used, as lenses to avoid splashes. Wear a mask in poorly ventilated places as described in section 8.2

7.2 Safe storage, possible incompatibilities included.

- Requirements to storerooms and receptacles: No special measures required.
- Advice on common storage facility: It is not necessary
- Further information about storage conditions: Store in dry environments.
- Storage class: Vdf class (regulation on flammable liquids): Void

7.3 Final specific uses.

Product for professional use in soldering at low temperatures.

8. EXPOSURE CONTROL / PERSONAL PROTECTION.

8.1 Control parameters.

Exposure limit:

Tin: TLV (as TWA): 2 mg/m³ (as tin) (ACGIH 1990-1991)

Copper: TLV (metal): 1 mg/m³ (ACGIH 1997). LEP UE: 1 mg/m³ as TWA (UE 2000)

Silver: TLV (metal): 0.1 mg/m³ (ACGIH 1997).LEP UE: 0.1 mg/m³ como TWA (UE 2000)

8.2 Exposure controls.

Respiratory protection: Use filter mask P3 BE EN 141 if you work long periods of time in small, poorly ventilated spaces. It is used in open or well ventilated areas or use mechanical extraction is recommend to maintain areas well ventilated.

PPE: Filter mask for protection against gases and particles

Features: Dial 'CE' Category III. The mask must have a wide field of view and a contoured shape for sealed and watertight.

CEN standards: EN 136, EN 140, EN 405

Maintenance: Do not store in locations exposed to high temperatures and damp environments before use. It should especially check the status of inhalation and exhalation valves in the face adapter.

Comments: They should read the manufacturer's instructions about the use and maintenance of the equipment carefully.

Eye Protection: Safety goggles to avoid splashes.

EPI: Safety glasses with brown saddle

Features: Dial 'CE' Category II. Comprehensive eye shield frame for protection against dust, fumes, mists and vapors.

CEN standards: EN 165, EN 166, EN 167, EN 168

Maintenance: Visibility through lenses should be clean daily Protectors and disinfected periodically following the manufacturer's instructions.

Notes: Indicators of impairment include: yellow coloring of the lenses, superficial scratching of the eye, tears, etc.

Skin Protection: Wear gloves resistance to small splashes of molten metal

EPI: Protective gloves against small splashes of molten metal

Features: Dial 'CE' Category III.

CEN standards: EN 407: 2004, EN 12477: 2002

Maintenance: Keep in a dry place, away from any heat sources. Avoid exposure to sunlight as far as possible. Don't make modifications on the gloves that alter their resistance.

Observations: Gloves should be fit. The hand avoiding too loose them or be too tight. They should always be used with clean, dry hands.

Environmental protection: Take into account the usual preventive measures to protect the environment, see point 6.2

9. PHYSICAL PROPERTIES.

9.1. Information about physical and basic chemical properties.

Physical state at 20°C

- | | |
|---|---|
| a) Appearance: Dark Grey | b) Odor: No characteristic odor |
| c) Odour threshold: Not applicable | d) pH: Not applicable |
| e) Melting / Freezing: 217/320 | f) Initial boiling point and range: Not applicable |
| g) Flash point: Not flammable | h) Evaporation Rate: Not applicable |
| i) Flammability (solid gas): No | j) Flammable Limits Not applicable |
| k) Vapor Pressure: Not applicable | l) Vapor Density: Not applicable |
| m) Specific Gravity: 7.31 to 7.38 | n) Solubility: insoluble |
| o) Partition coefficient n-octanol/water: Not applicable | p) Autoignition Temperature: Not applicable |
| q) Decomposition temperature: Not applicable | r) Viscosity: Not applicable |
| s) Explosive properties: No | t) Oxidizing properties: No |

9.2. Additional information.

Not defined

10. STABILITY AND REACTIVITY

10.1 Reactivity.

It normal conditions, it remains stable and does not react.

10.2 Chemical stability.

It normal conditions, it remains stable.

10.3 Dangerous possible reactions.

It reacts with acids and strong bases.

10.4 Conditions to be avoided.

Not defined

10.5 Incompatible materials.

Avoid contact with strong bases and acids.

10.6 Dangerous decomposition products.

Not defined

11. TOXICOLOGICAL INFORMATION.

11.1 Information of toxicological effects.

| | |
|--------------------------|---|
| Acute toxicity | Tin: 40 µg /m3 Plata: 0.1 mg/m3 Copper: 1 mg/m3 |
| Exposure pathways | Inhalation |
| Symptoms | During heating may cause slight irritation to eyes, nasal mucose and respiratory tract. |
| Chronic effects | Respiratory problems after years of constant activity in unfavorable work conditions |

12. ENVIROMENTAL INFORMATION.

12.1 Toxicity.

Not defined

12.2 Persistence and degradability.

Not defined

12.3 Potential bio-accumulation

Not defined

12.4 Mobility in soil.

Not defined

12.5 Results of PBT and mPmB

Not contain

12.6 Other adverse effects.

Not defined

13. DISPOSAL CONSIDERATIONS.

13.1 Methods for treating waste material

Respect local and national regulations. Throw away remaining products by hiring authorized companies.

14. TRANSPORT INFORMATION.

14.1 Number ONU.

Not subject.

14.2. Official transport designation according to United Nations.

Not subject

14.3 Transport hazards.

Not danger for transport.

14.4 Packaging group.

No

MATERIAL SAFETY DATA SHEET

ACCORDING RCE REGULATION 453/2010

ECO

SOFT SOLFER ALLOY

14.5 Environmental danger.

No

14.6 Individual caution for users.

No

14.7 Transport in bulk according to annex II of Marpol Convention 73/78 and the IBC Code.

No

15. REGULATORY INFORMATION.

15.1 Specific regulation and legislation in security, health and environmental items, for substances or mixtures.

The product is not affected by Regulation (EC) No. 2037/2000 of the European Parliament and of the Council of 29 June 2000 on substances that deplete the ozone layer. Refer to Annex I of Directive 96/82 / EC on the control of the inherent risks of major accidents involving dangerous substances and Commission Regulation (EC) No 689/2008 of the European Parliament and of the Council of 17 June 2008 concerning the export and import of dangerous chemicals.

15.2 Chemical security evolution.

Has not been carried out an assessment of chemical safety.

16. ADDITIONAL INFORMATION

Symbols and risk indicators legislation 1999/45/CE

Phrases:

R 20/22 Harmful by inhalation and ingestion.

R36 / 37/38 Irritating to eyes, skin and respiratory tract

S-phrases:

S 2 Keep away from children.

S 13 Keep away from foodstuffs, beverages and feed.

S 21 Do not smoke when using.

S 26 In case of contact with eyes rinse immediately with plenty of water and consult a doctor.

S36 / 37/39 Wear suitable gloves and eye / face

S45 In case of accident or if you feel unwell, seek medical advice immediately (if possible show the product label)

S61 Prevent leakage to the environment. Refer to special instructions safety data sheet

Phrases P of prudent point 2.3

-Tips Statements - Prevention

P102 + P201 + P270 + P273 + P281. Keep away from children. Obtain special instructions. Do not eat drink or smoke when using. Prevent leakage to the environment. The use of protective equipment is required

-Tips Statements - response

P305 + P351 + P338 + P313: IF IN EYES rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult a physician.

P304 + P340 + P313: IF INHALED move the victim to fresh air and keep at a comfortable position for breathing. Consult a physician

P301 + P331 + P313 IF SWALLOWED, do not induce to vomit. Consult a physician

P302 + P352 + P362 + P313 IF ON SKIN wash with soap and water. Remove contaminated clothing and wash before use again. Consult a physician

-Tips Statements – Throw away

P501: Dispose of container through an authorized agent.

Meaning of the initials used

| Initials | Significate | Initials | Significate |
|----------|--|----------|------------------------|
| Sn | Tin | µg | Microgram |
| Ag | Silver | mg | Miligram |
| Cu | Copper | TWA | Time Weighted Average |
| ACGIH | American Conference of Industrial Hygienists | TLV | Thershold Limit Values |

The information provided in this safety data sheet has been prepared in accordance with Regulation (EU) No 453/2010 of 20 May 2010 amending Regulation (CE) No 1907/2006 of amending Parliament and of the Council concerning the Registration Parliament, Evaluation, Authorization and restriction of Chemicals (REACH)

The above information is based on our current knowledge and experience and refer to the product. The information is to describe our products in accordance with safety requirements. Comments do not represent a guarantee of product properties in the legal sense. Customer responsibility is to know and take into account legal provisions related to transport and the use of the product. Product features are described in the technical information.

MSDS prepared by:



Georgina Gómez.
Quality Manager
Edition date: 11-21-2014