

**Safety data sheet**  
according to 1907/2006/EC, Article 31

Printing date 23.01.2022

Version number 29 (replaces version 28)

Revision: 23.01.2022

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

- **1.1 Product identifier**
- **Trade name:** GRF SILVER SOLD 23-S 2,0MM CQ 100G\*1 L2
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Brazing alloy
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Bison International  
Dr.A.F.Philipsstraat 9  
NL-4462 EW Goes  
PO Box 160  
NL-4460 AD Goes  
tel. +31 88 3235700  
fax. +31 88 3235800  
e mail: sds@boltonadhesives.com
- **Further information obtainable from:** Bison QESH
- **1.4 Emergency telephone number:**  
Emergency medical information: 8am-10pm (seven days) contact  
National Poisons Information Centre, Beaumont Hospital, Dublin 9. Tel 01 8092566

\* **SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the CLP regulation.
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements**  
H412 Harmful to aquatic life with long lasting effects.
- **Precautionary statements**  
P273 Avoid release to the environment.  
P501 Dispose of contents/container in accordance with national regulations.
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

\* **SECTION 3: Composition/information on ingredients**

- **3.2 Mixtures**
- **Description:** Brazing alloy

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**· Dangerous components:**

CAS: 7440-22-4 EINECS: 231-131-3	silver Aquatic Chronic 3, H412	50-100%
CAS: 7440-66-6 EINECS: 231-175-3 Index number: 030-001-01-9	zinc powder -zinc dust (stabilized) Aquatic Chronic 4, H413, EUH401	≥10-<25%
CAS: 7440-50-8 EINECS: 231-159-6 Index number: 029-024-00-X	copper ⚠ Aquatic Chronic 2, H411	≥10-<25%
CAS: 7440-31-5 EINECS: 231-141-8 Reg.nr.: 01-2119486474-28	tin substance with a Community workplace exposure limit	1-2.5%

**· Additional information:** For the wording of the listed hazard phrases refer to section 16.

**SECTION 4: First aid measures**

**· 4.1 Description of first aid measures**

**· General information:** No special measures required.

**· After inhalation:**

Supply fresh air; consult doctor in case of complaints.  
No special measures required.

**· After skin contact:** Generally the product does not irritate the skin.

**· After eye contact:** Rinse opened eye for several minutes under running water.

**· After swallowing:** If symptoms persist consult doctor.

**· 4.2 Most important symptoms and effects, both acute and delayed**

No further relevant information available.

**· 4.3 Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

**SECTION 5: Firefighting measures**

**· 5.1 Extinguishing media**

**· Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.

**· 5.2 Special hazards arising from the substance or mixture**

No further relevant information available.

**· 5.3 Advice for firefighters**

**· Protective equipment:** No special measures required.

**SECTION 6: Accidental release measures**

**· 6.1 Personal precautions, protective equipment and emergency procedures** Not required.

**· 6.2 Environmental precautions:**

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

Inform respective authorities in case of seepage into water course or sewage system.

Do not allow to enter sewers/ surface or ground water.

**· 6.3 Methods and material for containment and cleaning up:** Pick up mechanically.

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**6.4 Reference to other sections**

- No dangerous substances are released.
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

### SECTION 7: Handling and storage

- 7.1 Precautions for safe handling** No special precautions are necessary if used correctly.
- Information about fire - and explosion protection:** No special measures required.
- 7.2 Conditions for safe storage, including any incompatibilities**
- Storage:**
- Requirements to be met by storerooms and receptacles:** No special requirements.
- Information about storage in one common storage facility:** Not required.
- Further information about storage conditions:** None.
- Storage class:** 13
- 7.3 Specific end use(s)** No further relevant information available.

### SECTION 8: Exposure controls/personal protection

**8.1 Control parameters****Ingredients with limit values that require monitoring at the workplace:****7440-22-4 silver**OEL (Ireland) Long-term value: 0.1 mg/m<sup>3</sup>  
IOELVIOELV (EU) Long-term value: 0.1 mg/m<sup>3</sup>**7440-50-8 copper**OEL (Ireland) Long-term value: 0.2\* 1\*\* mg/m<sup>3</sup>  
\*fume \*\*dusts and mists**7440-31-5 tin**OEL (Ireland) Short-term value: 0.2\*\* mg/m<sup>3</sup>  
Long-term value: 2\* 0.1\*\* mg/m<sup>3</sup>  
IOELV,\*metal, oxide, inorg.compds.,\*\*org. compds.

- Additional information:** The lists valid during the making were used as basis.

**8.2 Exposure controls**

- Appropriate engineering controls** No further data; see item 7.
- Individual protection measures, such as personal protective equipment**

**General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.  
Wash hands before breaks and at the end of work.

- Respiratory protection:** Not required.

**Hand protection**

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

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- **Material of gloves**  
Recommended thickness of the material: > 0,12 mm  
Nitrile rubber, NBR
- **Penetration time of glove material**  
For the mixture of chemicals mentioned below the penetration time has to be at least 10 minutes  
(Permeation according to EN 374 Part 3: Level 1).
- **Eye/face protection** Not required.

### SECTION 9: Physical and chemical properties

#### · 9.1 Information on basic physical and chemical properties

##### · General Information

- |   |                                    |
|---|------------------------------------|
| · <b>Physical state</b>   | Solid                              |
| · <b>Colour:</b>  | According to product specification |
| · <b>Odour:</b>   | Characteristic                     |
| · <b>Odour threshold:</b>   | Not determined.                    |
| · <b>Melting point/freezing point:</b>                            | Undetermined.                      |
| · <b>Boiling point or initial boiling point and boiling range</b> | 907 °C                             |
| · <b>Flammability</b>   | Not determined.                    |
| · <b>Lower and upper explosion limit</b>                          |                                    |
| · <b>Lower:</b>   | Not determined.                    |
| · <b>Upper:</b>   | Not determined.                    |
| · <b>Flash point:</b>   | Not applicable.                    |
| · <b>Auto-ignition temperature:</b>                               | Product is not selfigniting.       |
| · <b>Decomposition temperature:</b>                               | Not determined.                    |
| · <b>pH</b>   | Not applicable.                    |
| · <b>Viscosity:</b>   |                                    |
| · <b>Kinematic viscosity</b>                                      | Not applicable.                    |
| · <b>Dynamic:</b>   | Not applicable.                    |
| · <b>Solubility</b>   |                                    |
| · <b>water:</b>   | Insoluble.                         |
| · <b>Partition coefficient n-octanol/water (log value)</b>        | Not determined.                    |
| · <b>Vapour pressure at 487 °C:</b>                               | 1 hPa                              |
| · <b>Density and/or relative density</b>                          |                                    |
| · <b>Density at 20 °C:</b>  | 9.297 g/cm <sup>3</sup>            |
| · <b>Relative density</b>   | Not determined.                    |
| · <b>Vapour density</b>   | Not applicable.                    |
| · <b>Particle characteristics</b>                                 | See item 3.                        |

#### · 9.2 Other information

All relevant physical data were determined for the mixture. All non-determined data are not measurable or not relevant for the characterization of the mixture.

- **Appearance:**
- **Form:** Solid

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**· Important information on protection of health and environment, and on safety.**

- **Explosive properties:** Product does not present an explosion hazard.
- **Solvent content:**
- **Solids content:** 100.0 %
- **Change in condition**
- **Evaporation rate** Not applicable.

**· Information with regard to physical hazard classes**

- **Explosives** Void
- **Flammable gases** Void
- **Aerosols** Void
- **Oxidising gases** Void
- **Gases under pressure** Void
- **Flammable liquids** Void
- **Flammable solids** Void
- **Self-reactive substances and mixtures** Void
- **Pyrophoric liquids** Void
- **Pyrophoric solids** Void
- **Self-heating substances and mixtures** Void
- **Substances and mixtures, which emit flammable gases in contact with water** Void
- **Oxidising liquids** Void
- **Oxidising solids** Void
- **Organic peroxides** Void
- **Corrosive to metals** Void
- **Desensitised explosives** Void

**SECTION 10: Stability and reactivity**

- **10.1 Reactivity** No further relevant information available.
- **10.2 Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **10.3 Possibility of hazardous reactions** No dangerous reactions known.
- **10.4 Conditions to avoid** No further relevant information available.
- **10.5 Incompatible materials:** No further relevant information available.
- **10.6 Hazardous decomposition products:** No dangerous decomposition products known.

**SECTION 11: Toxicological information**

- **11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.
- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.

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- **Germ cell mutagenicity**  
Not applicable.  
Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Based on available data, the classification criteria are not met.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure** Based on available data, the classification criteria are not met.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Additional toxicological information:**
- **Acute effects (acute toxicity, irritation and corrosivity)** Not applicable.
- **Sensitisation** Not applicable.
- **Repeated dose toxicity** Not applicable.
- **11.2 Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

### SECTION 12: Ecological information

- **12.1 Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **12.2 Persistence and degradability** No further relevant information available.
- **12.3 Bioaccumulative potential** No further relevant information available.
- **12.4 Mobility in soil** No further relevant information available.
- **12.5 Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **12.6 Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **12.7 Other adverse effects**
- **Remark:** Harmful to fish
- **Additional ecological information:**
- **General notes:**  
Water hazard class 2 (German Regulation) (Self-assessment): hazardous for water  
Do not allow product to reach ground water, water course or sewage system.  
Danger to drinking water if even small quantities leak into the ground.  
Harmful to aquatic organisms

### SECTION 13: Disposal considerations

- **13.1 Waste treatment methods**
- **Recommendation**  
Must not be disposed together with household garbage. Do not allow product to reach sewage system.  
Disposal must be made according to official regulations.

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- **Uncleaned packaging:**
- **Recommendation:**  
 Packagings that may not be cleansed are to be disposed of in the same manner as the product.

**SECTION 14: Transport information**

· <b>14.1 UN number or ID number</b> · <b>ADR/ADN, IMDG, IATA</b>	not regulated -
· <b>ADN</b>	not regulated
· <b>14.2 UN proper shipping name</b> · <b>ADR/ADN, ADN, IMDG, IATA</b>	not regulated
· <b>14.3 Transport hazard class(es)</b> · <b>ADR/ADN, ADN, IMDG, IATA</b> · <b>Class</b>	not regulated
· <b>14.4 Packing group</b> · <b>ADR/ADN, IMDG, IATA</b>	not regulated
· <b>14.5 Environmental hazards:</b> · <b>Marine pollutant:</b>	No
· <b>14.6 Special precautions for user</b>	Not applicable.
· <b>14.7 Maritime transport in bulk according to IMO instruments</b>	Not applicable.
· <b>Transport/Additional information:</b>	Not dangerous according to the above specifications.
· <b>Quantity limitations</b>	On passenger aircraft/rail: No limit On cargo aircraft only: No limit
· <b>IMDG</b> · <b>Remarks:</b>	Under certain conditions substances in Class 3 (flammable liquids) can be classified in packinggroup III. See IMDG, Part 2, Chapter 2.3, Paragraph 2.3.2.2
· <b>UN "Model Regulation":</b>	not regulated

**SECTION 15: Regulatory information**

- **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Directive 2012/18/EU**
- **Named dangerous substances - ANNEX I** None of the ingredients is listed.

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**· DIRECTIVE 2011/65/EU on the restriction of the use of certain hazardous substances in electrical and electronic equipment – Annex II**

None of the ingredients is listed.

**· REGULATION (EU) 2019/1148****· Regulation (EC) No 273/2004 on drug precursors**

None of the ingredients is listed.

**· Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors**

None of the ingredients is listed.

**· 15.2 Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.**SECTION 16: Other information**

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

**· Relevant phrases**

H411 Toxic to aquatic life with long lasting effects.

H412 Harmful to aquatic life with long lasting effects.

H413 May cause long lasting harmful effects to aquatic life.

EUH401 To avoid risks to human health and the environment, comply with the instructions for use.

**· Classification according to Regulation (EC) No 1272/2008**

Hazardous to the aquatic environment - long-term (chronic) aquatic hazard

The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

**· Department issuing SDS:** Bison QESH**· Contact:** Reach coordinator**· Date of previous version:** 23.01.2022**· Version number of previous version:** 28**· Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

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

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

Aquatic Chronic 4: Hazardous to the aquatic environment - long-term aquatic hazard – Category 4

**· \* Data compared to the previous version altered.**

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