

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

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

- **1.1 Product identifier**
- **Trade name:** GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR
- **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:**
National Poisons Information Centre: +353 (1) 809 2166 (8.00 a.m. to 10.00 p.m. 7 days a week)
Healthcare Professionals: +353 (1) 809 2566 (24 hour service)

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**
The product is not classified, according to the CLP regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**
EUH210 Safety data sheet available on request.
- **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

- **Dangerous components:**

| | | |
|--|---|---------|
| CAS: 7440-31-5 EINECS: 231-141-8 Reg.nr.: 01-2119486474-28 | tin substance with a Community workplace exposure limit | 50-100% |
| CAS: 7440-22-4 EINECS: 231-131-3 Reg.nr.: 01-2119555669-21 | silver substance with a Community workplace exposure limit | 2.5-10% |

(Contd. on page 2)

IE-EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

(Contd. of page 1)

- **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:** No special measures required.
- **6.3 Methods and material for containment and cleaning up:** Pick up mechanically.
- **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:** 11

(Contd. on page 3)

IE-EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

(Contd. of page 2)

- **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:**

7440-31-5 tin

| | |
|---------------|---|
| OEL (Ireland) | Short-term value: 0.2** mg/m ³ Long-term value: 2* 0.1** mg/m ³ IOELV, *metal, oxide, inorg.compds., **org. compds. |
|---------------|---|

7440-22-4 silver

| | |
|---------------|---|
| OEL (Ireland) | Long-term value: 0.1 mg/m ³ IOELV |
| IOELV (EU) | Long-term value: 0.1 mg/m ³ |

- **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

- **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**

- **Physical state**

Solid

- **Colour:**

Dark grey

- **Odour:**

Characteristic

- **Odour threshold:**

Not determined.

- **Melting point/freezing point:**

232 °C

- **Boiling point or initial boiling point and boiling range**

2362 °C

(Contd. on page 4)

IE-EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

(Contd. of page 3)

| | |
|--|---|
| · Flammability | Not determined. |
| · Lower and upper explosion limit | |
| · Lower: | Not determined. |
| · Upper: | Not determined. |
| · Flash point: | Not applicable. |
| · Decomposition temperature: | Not determined. |
| · pH | Not applicable. |
| · Viscosity: | |
| · Kinematic viscosity | Not applicable. |
| · Dynamic: | Not applicable. |
| · Solubility | |
| · water: | Insoluble. |
| · Partition coefficient n-octanol/water (log value) | Not determined. |
| · Vapour pressure: | Not applicable. |
| · Density and/or relative density | |
| · Density at 20 °C: | 3.71 g/cm ³ |
| · Relative density | Not determined. |
| · Bulk density: | 4000 kg/m ³ |
| · Vapour density | Not applicable. |
| · Particle characteristics | 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 |
| · Important information on protection of health and environment, and on safety. | |
| · Auto-ignition temperature: | Product is not selfigniting. |
| · Explosive properties: | Product does not present an explosion hazard. |
| · Solvent content: | |
| · Solids content: | 100.0 % |
| · Molecular weight | 118.69 g/mol |
| · 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 |

(Contd. on page 5)

IE-EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

(Contd. of page 4)

| | |
|--|------|
| · 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.
- **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.

IE-EN

(Contd. on page 6)

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

(Contd. of page 5)

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**
- **Additional ecological information:**
- **General notes:** Not hazardous for water.

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.
- **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

- | | |
|--|-----------------|
| · 14.1 UN number or ID number | |
| · ADR/ADN, IMDG, IATA | not regulated |
| · ADN | - |
| · ADN | not regulated |
| · 14.2 UN proper shipping name | |
| · ADR/ADN, ADN, IMDG, IATA | not regulated |
| · 14.3 Transport hazard class(es) | |
| · ADR/ADN, ADN, IMDG, IATA | |
| · Class | not regulated |
| · 14.4 Packing group | |
| · ADR/ADN, IMDG, IATA | not regulated |
| · 14.5 Environmental hazards: | |
| · Marine pollutant: | No |
| · 14.6 Special precautions for user | Not applicable. |

(Contd. on page 7)

IE-EN

Safety data sheet

according to 1907/2006/EC, Article 31

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

(Contd. of page 6)

- | | |
|---|---|
| · 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |
| · Transport/Additional information: | Not dangerous according to the above specifications. |
| · IMDG | |
| · Remarks: | 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 |
| · UN "Model Regulation": | 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.
- **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.

- **Department issuing SDS:** Bison QESH
- **Contact:** Reach coordinator
- **Date of previous version:** 23.01.2022
- **Version number of previous version:** 22
- **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

(Contd. on page 8)

IE-EN

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

Printing date 12.02.2023

Version number 23 (replaces version 22)

Revision: 12.02.2023

Trade name: GRF RES-2 T/S 97/3 2.0MM RL 500G*6 NLFR

vPvB: very Persistent and very Bioaccumulative

(Contd. of page 7)

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

IE-EN