

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

Printing date 16.10.2018

Version number 27

Revision: 11.09.2018

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

1.1 Product identifier

Trade name: GRIFFON UNI-100 TIN 500ML*12 L1

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 Adhesive

1.3 Details of the supplier of the safety data sheet

Manufacturer(1)/Supplier(2):

1

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: +31 88 3235700

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008



GHS02 flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



GHS08 health hazard

Carc. 2 H351 Suspected of causing cancer.



GHS05 corrosion

Eye Dam. 1 H318 Causes serious eye damage.



GHS07

Skin Irrit. 2 H315 Causes skin irritation.

STOT SE 3 H335 May cause respiratory irritation.

2.2 Label elements

Labelling according to Regulation (EC) No 1272/2008

The product is classified and labelled according to the CLP regulation.

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Hazard pictograms

GHS02 GHS05 GHS07 GHS08

Signal word Danger**Hazard-determining components of labelling:**tetrahydrofuran
cyclohexanone**Hazard statements**H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.
P102 Keep out of reach of children.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P261 Avoid breathing vapours.
P280 Wear eye protection / face protection.
P281 Use personal protective equipment as required.
P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P310 Immediately call a POISON CENTER/doctor.
P370+P378 In case of fire: Use to extinguish: Water haze, Alcohol resistant foam, Fire-extinguishing powder, Carbon dioxide.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with national regulations.

==>> Labelling of packages where the contents do not exceed 125 ml**Hazard pictograms**

GHS02 GHS05 GHS07 GHS08

Signal word Danger**Hazard-determining components of labelling:**tetrahydrofuran
cyclohexanone**Hazard statements**H318 Causes serious eye damage.
H351 Suspected of causing cancer.
H335 May cause respiratory irritation.**Precautionary statements**

P101 If medical advice is needed, have product container or label at hand.

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- P102 Keep out of reach of children.
- P261 Avoid breathing vapours.
- P280 Wear eye protection / face protection.
- P281 Use personal protective equipment as required.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P310 Immediately call a POISON CENTER/doctor.
- 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: Adhesive

Dangerous components:

CAS: 109-99-9 EINECS: 203-726-8 Reg.nr.: 01-2119444314-46	tetrahydrofuran ⚠ Flam. Liq. 2, H225; ⚠ Carc. 2, H351; ⚠ Eye Irrit. 2, H319; STOT SE 3, H335	50-100%
CAS: 108-94-1 EINECS: 203-631-1 Reg.nr.: 01-2119453616-35	cyclohexanone ⚠ Flam. Liq. 3, H226; ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Acute Tox. 4, H312; Acute Tox. 4, H332; Skin Irrit. 2, H315	10-25%
CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43	methyl ethyl ketone ⚠ Flam. Liq. 2, H225; ⚠ Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%

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. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.

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

Call a doctor immediately.

After skin contact: Immediately wash with water and soap and rinse thoroughly.

After eye contact:

Rinse opened eye for several minutes under running water. Then consult a doctor.

Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.

After swallowing:

Do not induce vomiting; call for medical help immediately.

Rinse out mouth and then drink plenty of water.

4.2 Most important symptoms and effects, both acute and delayed

No further relevant information available.

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- 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:**
Water haze
Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
 - For safety reasons unsuitable extinguishing agents:** Water with full jet
- 5.2 **Special hazards arising from the substance or mixture**
No further relevant information available.
- 5.3 **Advice for firefighters**
 - Protective equipment:** Mount respiratory protective device.
- Additional information**
Cool endangered receptacles with water spray.
Collect contaminated fire fighting water separately. It must not enter the sewage system.

SECTION 6: Accidental release measures

- 6.1 **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
- 6.2 **Environmental precautions:**
Prevent seepage into sewage system, workpits and cellars.
Do not allow to enter sewers/ surface or ground water.
- 6.3 **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralising agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- 6.4 **Reference to other sections**
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**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
Prevent formation of aerosols.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
- Information about fire - and explosion protection:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.
Keep respiratory protective device available.

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- . **7.2 Conditions for safe storage, including any incompatibilities**
- . **Storage:**
- . **Requirements to be met by storerooms and receptacles:** Store in a cool location.
- . **Information about storage in one common storage facility:** Not required.
- . **Further information about storage conditions:**
Keep receptacle tightly sealed.
Store in cool, dry conditions in well sealed receptacles.
- . **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- . **Additional information about design of technical facilities:** No further data; see item 7.

. **8.1 Control parameters**

- . **Ingredients with limit values that require monitoring at the workplace:**

109-99-9 tetrahydrofuran

WEL (Great Britain)	Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm Sk
IOELV (European Union)	Short-term value: 300 mg/m ³ , 100 ppm Long-term value: 150 mg/m ³ , 50 ppm Skin

108-94-1 cyclohexanone

WEL (Great Britain)	Short-term value: 82 mg/m ³ , 20 ppm Long-term value: 41 mg/m ³ , 10 ppm Sk, BMGV
IOELV (European Union)	Short-term value: 81.6 mg/m ³ , 20 ppm Long-term value: 40.8 mg/m ³ , 10 ppm Skin

78-93-3 methyl ethyl ketone

WEL (Great Britain)	Short-term value: 899 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm Sk, BMGV
IOELV (European Union)	Short-term value: 900 mg/m ³ , 300 ppm Long-term value: 600 mg/m ³ , 200 ppm

- . **Ingredients with biological limit values:**

108-94-1 cyclohexanone

BMGV (Great Britain)	2 mmol/mol creatinine Medium: urine Sampling time: post shift Parameter: cyclohexanol
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78-93-3 methyl ethyl ketone

BMGV (Great Britain)	70 µmol/L Medium: urine Sampling time: post shift Parameter: butan-2-one
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. **Additional information:** The lists valid during the making were used as basis.

. **8.2 Exposure controls**

. **Personal protective equipment:**

. **General protective and hygienic measures:**

The usual precautionary measures are to be adhered to when handling chemicals.

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing

Wash hands before breaks and at the end of work.

Store protective clothing separately.

Do not inhale gases / fumes / aerosols.

Avoid contact with the skin.

Avoid contact with the eyes and skin.

. **Respiratory protection:**

Suitable respiratory protective device recommended.

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.

Use suitable respiratory protective device in case of insufficient ventilation.

. **Recommended filter device for short term use:** Filter A

. **Protection of hands:**

Protective gloves

Solvent resistant gloves

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**

Butyl rubber, BR

Recommended thickness of the material: > 0,7 mm

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

. **Penetration time of glove material**

The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.

For the mixture of chemicals mentioned below the penetration time has to be at least 120 minutes (Permeation according to EN 374 Part 3: Level 4).

. **For the permanent contact gloves made of the following materials are suitable:**

Nitrile rubber, NBR

. **Eye protection:**



Tightly sealed goggles

. **Body protection:**

Use protective suit.

Solvent resistant protective clothing

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SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

General Information

Appearance:

Form:	Fluid
Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.

pH-value: Not determined.

Change in condition

Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range:	65 °C

Flash point: -14 °C

Flammability (solid, gas): Not applicable.

Ignition temperature: 230 °C

Decomposition temperature: Not determined.

Auto-ignition temperature: Product is not selfigniting.

Explosive properties: Product is not explosive. However, formation of explosive air/vapour mixtures are possible.

Explosion limits:

Lower:	1.3 Vol %
Upper:	12 Vol %

Vapour pressure at 20 °C: 200 hPa

Density at 20 °C:	0.978 g/cm ³
Relative density	Not determined.
Vapour density	Not determined.
Evaporation rate	Not determined.

Solubility in / Miscibility with water:

Not miscible or difficult to mix.

Partition coefficient: n-octanol/water: Not determined.

Viscosity:

Dynamic at 20 °C:	1,450 mPas
Kinematic:	Not determined.
Organic solvents:	78.9 %
Water:	0.0 %

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.

SECTION 10: Stability and reactivity

10.1 Reactivity No further relevant information available.

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- . **10.2 Chemical stability**
- . **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- . **10.3 Possibility of hazardous reactions** Corrosive action on metals.
- . **10.4 Conditions to avoid** No further relevant information available.
- . **10.5 Incompatible materials:** No further relevant information available.
- . **10.6 Hazardous decomposition products:** Danger of forming toxic pyrolysis products.

SECTION 11: Toxicological information

- . **11.1 Information on toxicological effects**
- . **Acute toxicity** Based on available data, the classification criteria are not met.

. **LD/LC50 values relevant for classification:**

109-99-9 tetrahydrofuran

Oral	LD50	3,000 mg/kg (rat)
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108-94-1 cyclohexanone

Oral	LD50	1,900 mg/kg (rat)
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Dermal	LD50	948 mg/kg (rbt)
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Inhalative	LC50/4 h	8,000 mg/l (rat)
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78-93-3 methyl ethyl ketone

Oral	LD50	3,300 mg/kg (rat)
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Dermal	LD50	5,000 mg/kg (rbt)
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- . **Primary irritant effect:**
- . **Skin corrosion/irritation**
Causes skin irritation.
- . **Serious eye damage/irritation**
Causes serious eye damage.
- . **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- . **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**
- . **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- . **Carcinogenicity**
Suspected of causing cancer.
- . **Reproductive toxicity** Based on available data, the classification criteria are not met.
- . **STOT-single exposure**
May cause respiratory irritation.
- . **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.

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.

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. Additional ecological information:

. General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

. 12.5 Results of PBT and vPvB assessment

. PBT: Not applicable.

. vPvB: Not applicable.

. 12.6 Other adverse effects No further relevant information available.

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.

. Uncleaned packaging:

. Recommendation:

Disposal must be made according to official regulations.

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

. ADR/ADN, IMDG, IATA

UN1133

. 14.2 UN proper shipping name

. ADR/ADN

1133 ADHESIVES

. IMDG, IATA

ADHESIVES

. 14.3 Transport hazard class(es)

. ADR/ADN



. Class

3 (F1) Flammable liquids.

. Label

3

. IMDG, IATA



. Class

3 Flammable liquids.

. Label

3

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. 14.4 Packing group . ADR/ADN, IMDG, IATA	III
. 14.5 Environmental hazards: . Marine pollutant:	No
. 14.6 Special precautions for user . Danger code (Kemler): . EMS Number: . Stowage Category	Warning: Flammable liquids. 33 F-E,S-D A
. 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
. Transport/Additional information:	
. ADR/ADN . Limited quantities (LQ) . Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
. Transport category . Tunnel restriction code	3 D/E
. IMDG . Limited quantities (LQ) . Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
. 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":	UN 1133 ADHESIVES, 3, III

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.
- . Seveso category P5c FLAMMABLE LIQUIDS
- . Qualifying quantity (tonnes) for the application of lower-tier requirements 5,000 t
- . Qualifying quantity (tonnes) for the application of upper-tier requirements 50,000 t
- . REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- . 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

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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

- H225 Highly flammable liquid and vapour.
- H226 Flammable liquid and vapour.
- H302 Harmful if swallowed.
- H312 Harmful in contact with skin.
- H315 Causes skin irritation.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H332 Harmful if inhaled.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer.

Classification according to Regulation (EC) No 1272/2008

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 coördinator

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)
- 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)
- LC50: Lethal concentration, 50 percent
- LD50: Lethal dose, 50 percent
- PBT: Persistent, Bioaccumulative and Toxic
- vPvB: very Persistent and very Bioaccumulative
- Flam. Liq. 2: Flammable liquids – Category 2
- Flam. Liq. 3: Flammable liquids – Category 3
- Acute Tox. 4: Acute toxicity – Category 4
- Skin Irrit. 2: Skin corrosion/irritation – Category 2
- Eye Dam. 1: Serious eye damage/eye irritation – Category 1
- Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- Carc. 2: Carcinogenicity – Category 2
- STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.

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