

Printing date 24.01.2022

Version number 27 (replaces version 26)

Revision: 24.01.2022

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

· 1.1 Product identifier

• Trade name: GRF HT-120 BO 500ML*12 L222

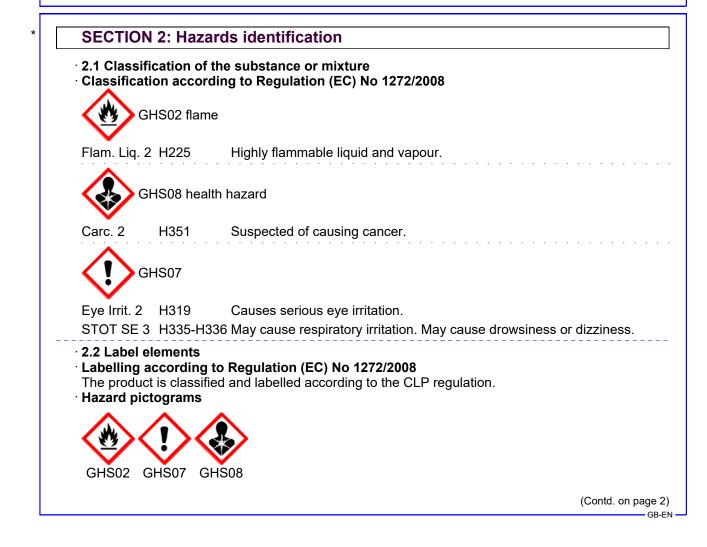
• **1.2 Relevant identified uses of the substance or mixture and uses advised against** No further relevant information available.

· Application of the substance / the mixture Adhesive

1.3 Details of the supplier of the safety data sheet
Manufacturer/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: +31 88 3235700. Operating hours mo-fr 08:00h-17:00h (CET)





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(Contd. of page 1) Signal word Danger · Hazard-determining components of labelling: tetrahydrofuran butanone acetone Hazard statements Highly flammable liquid and vapour. H225 H319 Causes serious eye irritation. H351 Suspected of causing cancer. H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness. 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 protective gloves. P370+P378 In case of fire: Use to extinguish: Water haze, Alcohol resistant foam, Fireextinguishing 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. Additional information: EUH066 Repeated exposure may cause skin dryness or cracking. · Labelling of packages where the contents do not exceed 125 ml Hazard pictograms GHS02 GHS07 GHS08 · Signal word Danger · Hazard-determining components of labelling: tetrahydrofuran butanone acetone Hazard statements H351 Suspected of causing cancer. H335-H336 May cause respiratory irritation. May cause drowsiness or dizziness. Precautionary statements P101 If medical advice is needed, have product container or label at hand. P102 Keep out of reach of children. P261 Avoid breathing vapours. P280 Wear protective gloves. 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.

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List II

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· Determination of endocrine-disrupting properties

78-93-3 butanone

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

· Description: Adhesive

· Dangerous components:		
CAS: 109-99-9 EINECS: 203-726-8 Index number: 603-025-00-0 Reg.nr.: 01-2119444314-46	tetrahydrofuran Flam. Liq. 2, H225; Carc. 2, H351; Eye Irrit. 2, H319; STOT SE 3, H335, EUH019 Specific concentration limits: Eye Irrit. 2; H319: C \geq 25 % STOT SE 3; H335: C \geq 25 % Self-react. A; H240: C \geq 80 %	≥50-<80%
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg.nr.: 01-2119457290-43	butanone	10-25%
CAS: 67-64-1 EINECS: 200-662-2 Index number: 606-001-00-8 Reg.nr.: 01-2119471330-49- XXXX	acetone Flam. Liq. 2, H225;	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. If symptoms persist, consult a doctor.
- 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.

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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: No special measures required.
- · 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: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up:

Send for recovery or disposal in suitable receptacles.

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). 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 interior ventilation, especially at floor level. (Fumes are heavier than air). Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.

- · Information about fire and explosion protection:
- Keep ignition sources away Do not smoke.

Protect against electrostatic charges.

- 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 container tightly sealed.

Store in cool, dry conditions in well sealed receptacles.

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· Storage class: 3

• 7.3 Specific end use(s) No further relevant information available.

8.1 Control parameters Ingredients with limit values that require monitoring at the workplace:				
<u> </u>	etrahydrofuran	toring at the workplace.		
	t-term value: 300 mg/m³, 100 ppm			
	j-term value: 150 mg/m³, 50 ppm			
Sk				
78-93-3 bı				
	t-term value: 899 mg/m³, 300 ppm			
	j-term value: 600 mg/m³, 200 ppm 3MGV			
67-64-1 ac				
	t-term value: 3620 mg/m³, 1500 ppm			
	-term value: 1210 mg/m³, 500 ppm			
DNELs				
78-93-3 bi	itanone			
Oral	Consumer, oral, longterm exposition	31 mg/kg bw/day		
Dermal	Consumer, dermal, longterm exposition			
Inhalative Consumer, inhalation, longterm exposition 106 mg/m ³		tion 106 mg/m³		
67-64-1 ac				
Oral	Consumer, oral, longterm exposition	62 mg/kg bw/day		
Dermal	Consumer, dermal, longterm exposition			
Inhalative	Consumer, inhalation, longterm exposi	tion 200 mg/m ³		
PNECs				
78-93-3 bı				
Fresh wate	0			
	ter 55.8 mg/l			
Soil	22.5 mg/kg			
67-64-1 ac				
Fresh wate	0			
	ter 1.06 mg/l			
Soil 29.5 mg/kg				
-	s with biological limit values:			
78-93-3 bı				
BMGV 70				
	dium: urine mpling time: post shift			
Parameter: butan-2-one				



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(Contd. of page 5) · 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. 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 / aerosols. Avoid contact with the eyes. 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 AX Filter A Hand protection Solvent resistant gloves Protective 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 · Penetration time of glove material 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). · Eye/face protection Tightly sealed goggles Goggles recommended during refilling Body protection: Solvent resistant protective clothing SECTION 9: Physical and chemical properties 9.1 Information on basic physical and chemical properties

General Information
 Physical state

Fluid

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Colour:	According to product specification
Odour:	Characteristic
Odour threshold:	Not determined.
Melting point/freezing point:	Undetermined.
Boiling point or initial boiling point and	
boiling range	65.5 °C
Flammability	Not applicable.
Lower and upper explosion limit	
Lower:	1.5 Vol %
Upper:	12 Vol %
Flash point:	-21 °C
Auto-ignition temperature:	Product is not selfigniting.
Decomposition temperature:	Not determined.
pH	Not determined.
Viscosity:	
Kinematic viscosity	Not determined.
Dynamic at 20 °C:	1000 mPas
Solubility	
water:	Not miscible or difficult to mix.
Partition coefficient n-octanol/water (log	
value)	Not determined.
Vapour pressure at 20 °C:	200 hPa
Density and/or relative density	
Density at 20 °C:	0.95 g/cm³
Relative density	Not determined.
Vapour density	Not determined.
9.2 Other information	All relevant physical data were determined for the
	mixture. All non-determined data are no
	measurable or not relevant for the
	characterization of the mixture.
Appearance:	shardotonzation of the mixture.
Form:	Fluid
Important information on protection of healt	
and environment, and on safety.	220 %
Ignition temperature:	230 °C
Explosive properties:	Product is not explosive. However, formation o
O have to a set out	explosive air/vapour mixtures are possible.
Solvent content:	
Organic solvents:	81.9 %
Organic solvents: Solids content:	
Organic solvents: Solids content: Change in condition	81.9 % 18.1 %
Organic solvents: Solids content: Change in condition	81.9 %
Organic solvents: Solids content: Change in condition Evaporation rate	81.9 % 18.1 % Not determined.
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar	81.9 % 18.1 % Not determined.
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar classes	81.9 % 18.1 % Not determined.
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar classes Explosives	81.9 % 18.1 % Not determined. 'd Void
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar classes Explosives Flammable gases	81.9 % 18.1 % Not determined. rd Void Void
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar classes Explosives Flammable gases Aerosols	81.9 % 18.1 % Not determined. rd Void Void Void Void
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar classes Explosives Flammable gases Aerosols Oxidising gases	81.9 % 18.1 % Not determined. rd Void Void Void Void Void Void
Organic solvents: Solids content: Change in condition Evaporation rate Information with regard to physical hazar classes Explosives	81.9 % 18.1 % Not determined. rd Void Void Void Void



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Flammable liquids	Highly flammable liquid and vapour.
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.

- \cdot 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 hazard classes as defined in Regulation (EC) No 1272/2008

- Acute toxicity Based on available data, the classification criteria are not met.
- · LD/LC50 values relevant for classification:

109-99-9 tetrahydrofuran

Oral LD50 2500 mg/kg (rat)

78-93-3 butanone

Oral LD50 3300 mg/kg (rat)

Dermal LD50 5000 mg/kg (rabbit)

67-64-1 acetone

Oral LD50 5800 mg/kg (rat)

Dermal LD50 20000 mg/kg (rabbit)

Skin corrosion/irritation Based on available data, the classification criteria are not met.

· Serious eye damage/irritation Causes serious eye irritation.

• 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 Suspected of causing cancer.

Reproductive toxicity Based on available data, the classification criteria are not met.

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List II

• STOT-single exposure May cause respiratory irritation. May cause drowsiness or dizziness.

- 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

78-93-3 butanone

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

For information on endocrine disrupting properties see section 11.

- 12.7 Other adverse effects
- · 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.

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.

· European waste catalogue

08 04 09* waste adhesives and sealants containing organic solvents or other hazardous substances

- · Uncleaned packaging:
- Recommendation:

Packagings that may not be cleansed are to be disposed of in the same manner as the product.

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14.1 UN number or ID 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	
2	
Class	3 Flammable liquids.
Label	3
14.4 Packing group	
ADR/ADN, IMDG, IATA	III
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.
Hazard identification number (Kemler code):	-
EMS Number:	F-E,S-D
Stowage Category	Α
14.7 Maritime transport in bulk according to	
IMO instruments	Not applicable.
Transport/Additional information:	
Quantity limitations	On passenger aircraft/rail: 60 L
	On cargo aircraft only: 220 L
ADR/ADN	
Limited quantities (LQ) Excepted quantities (EQ)	5L Code: E1
Excepted quantities (EQ)	Maximum net quantity per inner packaging: 30 n
	Maximum net quantity per outer packaging: 30 n
	ml
Transport category	3
Tunnel restriction code	E



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5L
Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 100 ml
Under certain conditions substances in Class
(flammable liquids) can be classified i packinggroup III.
See IMDG, Part 2, Chapter 2.3, Paragraph 2.3.2.2
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 5000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50000 t
- REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
- 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
- 78-93-3 butanone
- 67-64-1 acetone
- Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors
- 78-93-3 butanone
- 67-64-1 acetone
- 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

- H225 Highly flammable liquid and vapour.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.

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Classification according to Regulation (EC) No 1272/2008			
	Flammable liquids	Bridging principles	
	Serious eye damage/eye irritation Carcinogenicity Specific target organ toxicity (single exposure)	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: 23.09.2021 Version number of previous version: 26 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) DNEL: Derived No-Effect Level (REACH) PNEC: Predicted No-Effect Concentration (REACH) LC50: Lethal concentration, 50 percent PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative Flam. Liq. 2: Flammable liquids – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Eye Irrit. 2: Serious eye damage/eye irritation – Category 2 Stort SE 3: Specific target organ toxicity (single exposure) – Category 3 * Data compared to the previous version altered. 		