

6314760 - GRF WDF-05 BO 1L*8 L243

Safety data sheet according to Regulation (EC) No 1907/2006, Article 31

Printing date 11.11.2024 Version number 35 (replaces version 34) Revision: 11.11.2024

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

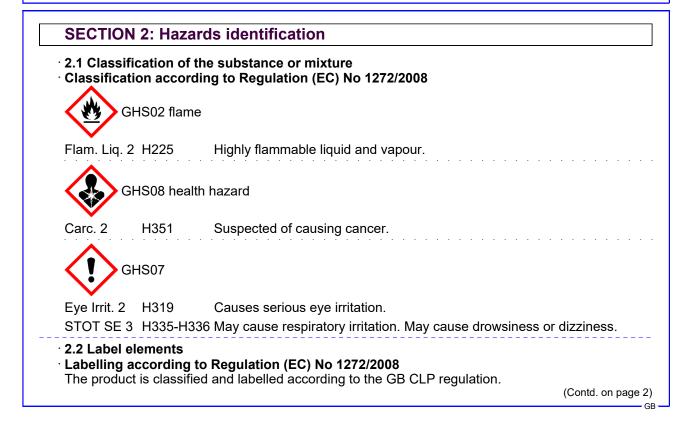
1.1 Product identifier

· Trade name: GRF WDF-05 BO 1L*8 L243

- **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 B.V. 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: PSRA

• **1.4 Emergency telephone number:** Members of the public seeking specific information on poisons should contact: In England and Wales: NHS 111 - dial 111 In Scotland: NHS 24 - dial 111





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· Hazard pictograms



- Signal word Danger
- · Hazard-determining components of labelling:
- Tetrahydrofuran
- Butanone
- · Hazard statements
- H225 Highly flammable liquid and vapour.
- 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/protective clothing/eye protection/face protection.
- 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



- · Signal word Danger
- · Hazard-determining components of labelling:
- Tetrahydrofuran
- Butanone

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/protective clothing/eye protection/face protection.
- P501 Dispose of contents/container in accordance with national regulations.

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· 2.3 Other hazards

- · Results of PBT and vPvB assessment
- · **PBT:** Not applicable.
- **vPvB:** Not applicable.

· Determination of endocrine-disrupting properties

78-93-3 Butanone

List II

SECTION 3: Composition/information on ingredients

· 3.2 Mixtures

• Description: Adhesive

CAS: 109-99-9	Tetrahydrofuran	50-100%
EINECS: 203-726-8 Index number: 603-025-00-0 Reg.nr.: 01-2119444314-46- XXXX	 ♦ Flam. Liq. 2, H225; ♦ Carc. 2, H351; ♦ Acute Tox. 4, H302; Eye Irrit. 2, H319; STOT SE 3, H335, EUH019 Specific concentration limits: Eye Irrit. 2; H319: C ≥ 25% STOT SE 3; H335: C ≥ 25 % 	
CAS: 78-93-3 EINECS: 201-159-0 Index number: 606-002-00-3 Reg.nr.: 01-2119457290-43- XXXX	Butanone Flam. Liq. 2, H225; () Eye Irrit. 2, H319; STOT SE 3, H336, EUH066	25-50%

• 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.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents:
- Water haze

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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 section 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.

Storage class: 3

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

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8.1 Control parameters					
Ingredients with limit values that require monitoring at the workplace:					
	109-99-9 Tetrahydrofuran				
		t-term value: 300 m			
	Long Sk	g-term value: 150 mg/m³, 50 ppm			
	3-93-3 Butanone				
		ort-term value: 899 mg/m³, 300 ppm			
		ig-term value: 600 mg/m³, 200 ppm			
	Sk, E	BMGV			
DNEL	.s				
109-9	9-9 1	etrahydrofuran			
Oral		Consumer, oral, lor	ngterm exposition	1.5 mg/kg bw/day	
Derma	al	Worker, dermal, lor	ngterm exposition	12.6 mg/kg bw/day	
			longterm exposition	1.5 mg/kg bw/day	
Inhala	tive		shortterm exposition	96 mg/m³	
		Worker, inhalative, longterm exposition		72.4 mg/m³	
		Consumer DNEL, acute inhalation		52 mg/m³	
			ve, longterm exposition	13 mg/m³	
78-93	-3 Bı	utanone			
Oral		Consumer, oral, lor	•	31 mg/kg bw/day	
Derma	al	Worker, dermal, lor	•	1161 mg/kg bw/day	
			longterm exposition	412 mg/kg bw/day	
Inhala	tive		shortterm exposition	900 mg/m ³	
			longterm exposition	600 mg/m ³	
		Consumer DNEL, a		450 mg/m ³	
		Consumer, inhalati	ve, longterm exposition	106 mg/m³	
PNEC					
		etrahydrofuran			
		ndary Poisoning	67 mg/kg		
		n water	4.32 mg/l		
Fresh water sediment			23.3 mg/kg dry weight		
			0.432 mg/l		
		ne sediment	2.33 mg/kg dry weight		
			2.13 mg/kg		
	Sewage treatment plant 4.6 mg/l		-		
	•	adic release	21.6 mg/l		
		utanone	1000 mm////		
		ndary Poisoning n water	1000 mg/kg 55.8 mg/l		



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Fresh water sediment	284.7 mg/kg dry weight
Marine water	55.8 mg/l
Marine sediment	284.7 mg/kg dry weight
Soil	22.5 mg/kg
Sewage treatment plant	709 mg/l
Sporadic release	55.8 mg/l
Ingredients with biological li	imit values:
78-93-3 Butanone	
BMGV 70 µmol/L Medium: urine Sampling time: post sh Parameter: butan-2-or	
Additional information: The	lists valid during the making were used as basis.
Keep away from foodstuffs, be Immediately remove all soiled Wash hands before breaks an Do not inhale gases / fumes / a Avoid contact with the eyes. Avoid contact with the eyes an Respiratory protection: Suitable respiratory protective In case of brief exposure or lo exposure use self-contained re Use suitable respiratory protect Recommended filter device Hand protection Solvent resistant gloves	and contaminated clothing d at the end of work. aerosols. nd skin. device recommended. w pollution use respiratory filter device. In case of intensive or longer espiratory protective device. ctive device in case of insufficient ventilation.
Protective gloves	
preparation. Selection of the glove materia degradation	e impermeable and resistant to the product/ the substance/ the I on consideration of the penetration times, rates of diffusion and the
 Material of gloves Recommended thickness of th Butyl rubber, BR Nitrile rubber, NBR 	ne material: > 0,12 mm
Recommended thickness of th	ne material: > 0,7 mm (Contd. on page 7) GB



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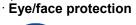
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· Penetration time of glove material

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). 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).





Tightly sealed goggles

Goggles recommended during refilling

Body protection: Solvent resistant protective clothing

 9.1 Information on basic physical and chem General Information 	ical properties
· Physical state	Fluid
· Colour:	According to product specification
· Odour:	Characteristic
Odour threshold:	Not determined.
· Melting point/freezing point:	Undetermined.
	Ondetermined.
• Boiling point or initial boiling point and	
boiling range	65.5 °C
Flammability	Highly flammable.
Lower and upper explosion limit	4 5 1 4 9 4
· Lower:	1.5 Vol %
· Upper:	12 Vol %
· Flash point:	-21 °C
 Auto-ignition temperature: 	230 °C
 Decomposition temperature: 	Not determined.
· pH	Not determined.
· Viscosity:	
Kinematic viscosity	Not determined.
· Dynamic at 20 °C:	675 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
· Vapour pressure at 50 °C:	550 hPa
· Density and/or relative density	
· Density at 20 °C:	0.965-0.966 g/cm ³
· Relative density	Not determined.
· Vapour density	Not determined.
tapour density	
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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:	
Form:	Fluid
Important information on protection of hea	lith
and environment, and on safety.	
Ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of
- - - - - - - - - -	explosive air/vapour mixtures are possible.
Solvent content:	
Organic solvents:	82.9 %
Water:	0.0 %
VOC (EC)	82.92 %
Solids content:	16.9 %
Change in condition	
Evaporation rate	Not determined.
Information with regard to physical haza	ard
classes	
Explosives	Void
Flammable gases	Void
Aerosols	Void
Oxidising gases	Void
Gases under pressure	Void
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
	VOID
Organic peroxides Corrosive to metals	Void 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.

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· 10.6 Hazardous decomposition products: Danger of forming toxic pyrolysis products.

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	500 mg/kg (rat)	
Dermal	LD50	>2000 mg/kg (rat)	
Inhalative	LC50/4 h	>5000 mg/l (rat)	
78-93-3 B			
Oral	LD50	>2193 mg/kg (rat)	
Dermal	LD50	>8050 mg/kg (rat)	
		ata, the classification criteria are not met.	
Carcinoge Reproduct STOT-sing STOT-rep Aspiration Additiona Acute effe Sensitisat Repeated	available of enicity Sus- stive toxic gle expos eated exp n hazard E il toxicolog ects (acuto tion Not ap dose toxi	spected of causing cancer. ty Based on available data, the classification criteria are not met. ure May cause respiratory irritation. May cause drowsiness or dizziness. osure Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. gical information: a toxicity, irritation and corrosivity) Not applicable.	
Carcinoge Reproduct STOT-sing STOT-rep Aspiration Additiona Acute effe Sensitisat Repeated 11.2 Inform	available d enicity Sus gle expos eated exp n hazard E Il toxicolog ects (acute tion Not ap dose toxi mation on	spected of causing cancer. ty Based on available data, the classification criteria are not met. ure May cause respiratory irritation. May cause drowsiness or dizziness. osure Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. gical information: toxicity, irritation and corrosivity) Not applicable. oplicable. city Not applicable.	
Carcinoge Reproduct STOT-sing STOT-rep Aspiration Additiona Additiona Sensitisat Repeated 11.2 Infort	available d enicity Sus gle expos eated exp n hazard E Il toxicolog ects (acute tion Not ap dose toxi mation on	spected of causing cancer. ty Based on available data, the classification criteria are not met. ure May cause respiratory irritation. May cause drowsiness or dizziness. osure Based on available data, the classification criteria are not met. Based on available data, the classification criteria are not met. gical information: toxicity, irritation and corrosivity) Not applicable. oplicable. city Not applicable. other hazards	

· 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.

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· 12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

- · 12.7 Other adverse effects
- · Additional ecological information:
- · General notes:

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.

- · Uncleaned packaging:
- Recommendation:

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

14.1 UN number or ID number ADR/ADN, IMDG, IATA	UN1133	
14.2 UN proper shipping name ADR/ADN IMDG, IATA	1133 ADHESIVES ADHESIVES	
14.3 Transport hazard class(es) ADR/ADN		
Class Label	3 (F1) Flammable liquids. 3	
IMDG, IATA		
Class Label	3 Flammable liquids. 3	
14.4 Packing group ADR/ADN, IMDG, IATA	III	



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 14.5 Environmental hazards: Marine pollutant: 	No
 14.6 Special precautions for user Hazard identification number (Kemler code): 	Warning: Flammable liquids.
· EMS Number:	F-E,S-D A
 14.7 Maritime transport in bulk according to IMO instruments 	Not applicable.
	On passenger aircraft/rail: 60 L On cargo aircraft only: 220 L
· Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 100 ml
· Transport category	3 E
Excepted quantities (EQ)	5L Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 100
· Remarks:	For substances with class 3 according to IMDG Code chapter 2.3.2.2 packing group is classifie in packing group III, as viscosity is in accordanc with requirements (flow time t > 100s).
· 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

- Regulated explosives precursors
- None of the ingredients is listed.
- Regulated poisons
- None of the ingredients is listed.

Reportable explosives precursors

None of the ingredients is listed.

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[·] Poisons Act



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· Reportable poisons

None of the ingredients is listed.

- 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

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Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors 3

78-93-3 Butanone

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.
- H302 Harmful if swallowed.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.
- H336 May cause drowsiness or dizziness.
- H351 Suspected of causing cancer.

EUH019 May form explosive peroxides.

EUH066 Repeated exposure may cause skin dryness or cracking.

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.

Flammable liquids	Bridging principles
	The classification of the mixture is generally based on the calculation method using substance data
Specific target organ toxicity (single exposure)	according to Regulation (EC) No 1272/2008.

· Department issuing SDS: PSRA

- · Contact: PSRA
- · Date of previous version: 21.06.2024
- · Version number of previous version: 34
- 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

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(Contd. of page 12) 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) VOC: Volatile Organic Compounds (USA, EU) DNEL: Derived No-Effect Level (UK REACH) PNEC: Predicted No-Effect Concentration (UK REACH) 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 Acute Tox. 4: Acute toxicity – Category 4 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