Safety Data Sheet
acc. to OSHA HCS

Printing date 07/17/2026 Reviewed on 07/17/2026

1 Identification

· **Product identifier**

· **Trade name:** GRF PE CLNR HEAVY DUTY BO 1L*12 L051
· **Application of the substance / the mixture** Cleaning agent/ Cleaner

· **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

· **Information department:** PSRA
· **Emergency telephone number:**
Bison and Griffon products: +31 88 3235700. Operating hours mo-fr 08:00h-17:00h (CET)
UHU products: + 49 (0) 30/19240 (Notruf). Operating hours mo-fr 08:00h-17:00h (CET)

For detailed information contact the national Poison Centre @
https://poisoncentres.echa.europa.eu/appointed-bodies

2 Hazard(s) identification

· **Classification of the substance or mixture**

Flammable Liquids 2	H225 Highly flammable liquid and vapor.
Skin Irritation 2	H315 Causes skin irritation.
Specific Target Organ Toxicity - Single Exposure 3	H336 May cause drowsiness or dizziness.
Aspiration Hazard 1	H304 May be fatal if swallowed and enters airways.

· **Label elements**
· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
cyclohexane
· **Hazard statements**
H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.

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· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing vapours.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P331 Do NOT induce vomiting.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with national regulations.
· **Classification system:**
· **NFPA ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

· **HMIS-ratings (scale 0 - 4)**



Health = 1
Fire = 3
Reactivity = 0

· **Other hazards**
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**
· **Description:** Cleansing agent

· **Dangerous components:**		
	Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics	50-100%
110-82-7	cyclohexane	1-2.5%

4 First-aid measures

· **Description of first aid measures**
· **General information:** No special measures required.
· **After inhalation:**
In case of unconsciousness place patient stably in side position for transportation.
· **After skin contact:** Immediately wash with water and soap and rinse thoroughly.
· **After eye contact:** Rinse opened eye for several minutes under running water.
· **After swallowing:** If symptoms persist consult doctor.
· **Information for doctor:**
· **Most important symptoms and effects, both acute and delayed**
No further relevant information available.

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· **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

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5 Fire-fighting measures

· **Extinguishing media**
· **Suitable extinguishing agents:**
Water haze
Alcohol resistant foam
Fire-extinguishing powder
Carbon dioxide
· **Special hazards arising from the substance or mixture**
No further relevant information available.
· **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.

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6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**
Wear protective equipment. Keep unprotected persons away.
· **Environmental precautions:**
Dilute with plenty of water.
Do not allow to enter sewers/ surface or ground water.
· **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.
· **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.
· **Protective Action Criteria for Chemicals**

· **PAC-1:**		
110-82-7	cyclohexane	800 ppm
· **PAC-2:**		
110-82-7	cyclohexane	1700 ppm
· **PAC-3:**		
110-82-7	cyclohexane	10000 ppm

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7 Handling and storage

· **Handling:**
· **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 protection against explosions and fires:**
Keep ignition sources away - Do not smoke.
Protect against electrostatic charges.

· **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.
· **Storage class:** 3
· **Specific end use(s)** No further relevant information available.

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8 Exposure controls/personal protection

· **Additional information about design of technical systems:** No further data; see section 7.

· **Control parameters**
· **Components with limit values that require monitoring at the workplace:**
The following constituent is the only constituent of the product which has a PEL, TLV or other recommended exposure limit.
At this time, the remaining constituent has no known exposure limits.

110-82-7 cyclohexane	
PEL	Long-term value: 1050 mg/m³, 300 ppm
REL	Long-term value: 1050 mg/m³, 300 ppm
TLV	Long-term value: 100 ppm BEI

· **Ingredients with biological limit values:**	
110-82-7 cyclohexane	
BEI	50 mg/g creatinine Medium: - Time: End of shift, end of working week Parameter: 1.2-Cyclohexanediol (non-specific, with hydrolysis)

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**
· **Personal protective equipment:**
· **General protective and hygienic measures:**
The usual precautionary measures for handling chemicals should be followed.
Keep away from foodstuffs, beverages and feed.

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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 skin.
Avoid contact with the eyes and skin.

· **Breathing equipment:**
Use suitable respiratory protective device in case of insufficient ventilation.
· **Recommended filter device for short term use:** Filter A
· **Protection of hands:**
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**
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 protection:**


Tightly sealed goggles

Goggles recommended during refilling.
· **Body protection:**
Use protective suit.
Solvent resistant protective clothing

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9 Physical and chemical properties

· **Information on basic physical and chemical properties**	
· **General Information**	
· **Appearance:**	
Form:	Liquid
Color:	Transparent
· **Odor:**	Characteristic
· **Odor threshold:**	Not determined
· **pH-value:**	Mixture is non-polar/aprotic.
· **Change in condition**	
Melting point/Melting range:	Undetermined

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Boiling point/Boiling range:	94-99 °C (201.2-210.2 °F)
· **Flash point:**	-7 °C (19.4 °F)
· **Flammability:**	Highly flammable.
· **Auto igniting:**	258 °C (496.4 °F)
· **Decomposition temperature:**	Not determined
· **Ignition temperature:**	Product is not selfigniting.
· **Danger of explosion:**	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· **Explosion limits:**	
Lower:	1 Vol %
Upper:	7 Vol %
· **Vapor pressure at 20 °C (68 °F):**	5 hPa (3.8 mm Hg)
· **Density at 20 °C (68 °F):**	0.868 g/cm³ (7.243 lbs/gal)
· **Relative density**	Not determined
· **Vapor density**	Not determined
· **Evaporation rate**	Not determined
· **Solubility in / Miscibility with**	
Water:	Fully miscible.
· **Partition coefficient (n-octanol/water):**	Not determined
· **Viscosity:**	
Dynamic:	Not determined
Kinematic:	Not determined
· **Solvent content:**	
Organic solvents:	100.0 %
VOC content:	100.00 % ~720.0 g/l / ~6.01 lb/gal
Solids content:	0.0 %
· **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.

10 Stability and reactivity

· **Reactivity** No further relevant information available.
· **Chemical stability**
· **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
· **Possibility of hazardous reactions** No dangerous reactions known.
· **Conditions to avoid** No further relevant information available.
· **Incompatible materials:** No further relevant information available.

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· **Hazardous decomposition products:** Danger of toxic pyrolysis products.

11 Toxicological information

· **Information on toxicological effects**
· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**		
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics		
Oral	LD50	>5840 mg/kg (rat)
Dermal	LD50	>2920 mg/kg (rat)
Inhalative	LC50/4 h	>23.3 mg/l (rat)
110-82-7 cyclohexane		
Oral	LD50	>5000 mg/kg (rat)
Dermal	LD50	>2000 mg/kg (rabbit)
Inhalative	LC50/4 h	32.88 mg/l (rat)

· **Primary irritant effect:**
· **on the skin:** Irritant to skin and mucous membranes.
· **on the eye:** No irritating effect.
· **Sensitization:** No sensitizing effects known.
· **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
Irritant

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**
None of the ingredients is listed.

· **NTP (National Toxicology Program)**
None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**
None of the ingredients is listed.

· **Germ cell mutagenicity** Not applicable

12 Ecological information

· **Toxicity**
· **Aquatic toxicity:** No further relevant information available.
· **Persistence and degradability** No further relevant information available.
· **Behavior in environmental systems:**
· **Bioaccumulative potential** No further relevant information available.
· **Mobility in soil** No further relevant information available.
· **Additional ecological information:**
· **General notes:**
Do not allow product to reach ground water, water course or sewage system.

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Danger to drinking water if even small quantities leak into the ground.
· **Results of PBT and vPvB assessment**
· **PBT:** Not applicable
· **vPvB:** Not applicable
· **Other adverse effects** No further relevant information available.

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13 Disposal considerations

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

· **Uncleaned packagings:**
· **Recommendation:**
Packagings that cannot be cleansed are to be disposed of in the same manner as the product.
· **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**	
· **DOT, ADR/ADN, IMDG, IATA**	UN1206
· **UN proper shipping name**	
· **DOT**	Heptanes
· **ADR/ADN**	1206 HEPTANES, ENVIRONMENTALLY HAZARDOUS
· **IMDG**	HEPTANES, MARINE POLLUTANT
· **IATA**	HEPTANES
· **Transport hazard class(es)**	
· **DOT**	



· **Class**	3 Flammable liquids
· **Label**	3
· **ADR/ADN**	



· **Class**	3 (F1) Flammable liquids

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· **Label**	3
· **IMDG**	
	
· **Class**	3 Flammable liquids
· **Label**	3
· **IATA**	
	
· **Class**	3 Flammable liquids
· **Label**	3
· **Packing group**	
· **DOT, ADR/ADN, IMDG, IATA**	II
· **Environmental hazards:**	Product contains environmentally hazardous substances: cyclohexane
· **Marine pollutant:**	Yes Symbol (fish and tree)
· **Special marking (ADR/ADN):**	Symbol (fish and tree)
· **Special precautions for user**	Warning: Flammable liquids
· **Hazard identification number (Kemler code):**	33
· **EMS Number:**	F-E,S-D
· **Stowage Category**	B
· **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**	Not applicable
· **Transport/Additional information:**	
· **DOT**	
· **Quantity limitations**	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· **Remarks:**	Special marking with the symbol (fish and tree).
· **ADR/ADN**	
· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **IMDG**	
· **Limited quantities (LQ)**	1L

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· **Excepted quantities (EQ)**	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· **Remarks:**	For substances with class 3 according to IMDG-Code chapter 2.3.2.2 packing group is classified in packing group III, as viscosity is in accordance with requirements (flow time t > 100s).
· **UN "Model Regulation":**	UN 1206 HEPTANES, 3, III, ENVIRONMENTALLY HAZARDOUS

15 Regulatory information

· **Safety, health and environmental regulations/legislation specific for the substance or mixture**

· **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

110-82-7	cyclohexane

· **TSCA (Toxic Substances Control Act):**

110-82-7	cyclohexane	ACTIVE

· **Hazardous Air Pollutants**

None of the ingredients is listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenic categories**

· **EPA (Environmental Protection Agency)**

110-82-7	cyclohexane	I

· **TLV (Threshold Limit Value)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

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· **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
· **Hazard pictograms**



GHS02 GHS07 GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**
Hydrocarbons, C7, n-alkanes, isoalkanes, cyclics
cyclohexane
· **Hazard statements**
H225 Highly flammable liquid and vapor.
H315 Causes skin irritation.
H336 May cause drowsiness or dizziness.
H304 May be fatal if swallowed and enters airways.
· **Precautionary statements**
P210 Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261 Avoid breathing vapours.
P301+P310 If swallowed: Immediately call a poison center/doctor.
P331 Do NOT induce vomiting.
P403+P233 Store in a well-ventilated place. Keep container tightly closed.
P501 Dispose of contents/container in accordance with national regulations.
· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

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:** PSRA
· **Contact:** PSRA
· **Date of preparation / last revision** 07/17/2026 / 109
· **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
DOT: US Department of Transportation
IATA: International Air Transport Association
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)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
VOC: Volatile Organic Compounds (USA, EU)
LC50: Lethal concentration, 50 percent
LD50: Lethal dose, 50 percent
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value

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PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
BEI: Biological Exposure Limit
Flammable Liquids 2: Flammable liquids – Category 2
Skin Irritation 2: Skin corrosion/irritation – Category 2
Specific Target Organ Toxicity - Single Exposure 3: Specific target organ toxicity (single exposure) – Category 3
Aspiration Hazard 1: Aspiration hazard – Category 1

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

US