

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

Printing date 31.05.2018



Version number 1

Revision: 31.05.2018

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

- **1.1 Product identifier**
 - **Trade name:** **REPAIR SPRAY 100 ML ZEFAL**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Sector of Use SU21** Consumer uses: Private households / general public / consumers
- **Product category**
 - PC1 Adhesives, sealants
 - PC0 Other
- **Application of the substance / the preparation :** Tire repair and inflation for cycling use
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
 - ZEFAL
 - ZI des Cailloux
 - 45150 Jargeau - France
 - Tel: +33(0)2 38 59 70 45
 - Fax: +33(0)2 38 59 99 14
 - Email: zefal@zefal.com / Mr Brunet
- **1.4 Emergency telephone number:**
 - France (INRS 24h/24) - Tel : +33 (0)1 45 42 59 59
 - Ireland - Tel : 00 353 1 8092568 - 00 353 1 8379964 (24h/24) EU Tel: 112
 - Belgique - Tel : 32 070/245 245
 - UK : Call NHS 999 in a medical emergency. If you urgently need medical help or advice but it's not a life-threatening situation, call 111 (24/7). The NHS 111 number is currently only available in certain areas. If you're outside of these areas, you should call NHS Direct on 0845 4647

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**
 - **Classification according to Regulation (EC) No 1272/2008 :**
 -  **GHS02**
 - Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 - Aquatic Chronic 3 H412 Harmful to aquatic life with long lasting effects.
- **2.2 Label elements**
 - **Labelling according to Regulation (EC) No 1272/2008**
 - The product is classified and labelled according to the CLP regulation.
 - **Hazard pictograms**
 -  **GHS02**
 - **Signal word** Danger
 - **Hazard statements**
 - H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.
 - H412 Harmful to aquatic life with long lasting effects.
 - **Precautionary statements**
 - P101 If medical advice is needed, have product container or label at hand.
 - P102 Keep out of reach of children.

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- P103 Read label before use.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P211 Do not spray on an open flame or other ignition source.
- P251 Do not pierce or burn, even after use.
- P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
- P501 Dispose of contents/container in accordance with local/regional/national/international 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 Chemical characterisation: Mixtures

 · **Description:** Mixture: consisting of the following components.

· Dangerous components:

CAS: 106-97-8 EINECS: 203-448-7 Index number: 601-004-00-0 RTECS: EJ 4200000 Reg.nr.: 01-2119474691-32	butane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-25%
CAS: 74-98-6 EINECS: 200-827-9 Index number: 601-003-00-5 RTECS: TX 2275000 Reg.nr.: 01-2119486944-21	propane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	10-25%
CAS: 75-28-5 EINECS: 200-857-2 Index number: 601-004-00-0 RTECS: TZ 4300000 Reg.nr.: 01-2119485395-27	isobutane ⚠ Flam. Gas 1, H220; Press. Gas (Comp.), H280	2.5-10%
CAS: 1314-13-2 EINECS: 215-222-5 Index number: 030-013-00-7 RTECS: ZH 4810000 Reg.nr.: 01-2119463881-32-xxxx	zinc oxide ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410	0-2.5%
CAS: 61788-90-7 EINECS: 263-016-9 Reg.nr.: 01-2119490061-47	cocoalkyldimethylamine oxide ⚠ Eye Dam. 1, H318; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 2, H411; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315	0-2.5%

· SVHC No

· Regulation 648/2004 on Detergents :

amphoteric surfactants

<5%

 · **Additional information:** For the wording of the listed risk phrases, refer to section 16.

SECTION 4: First aid measures

· 4.1 Description of first aid measures

 · **After excessive inhalation:** Provide fresh air; consult a doctor in case of medical complaints.

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- **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:** Do not induce vomiting; call for medical help immediately.
- **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 Suitable extinguishing agents:** CO₂, sand, extinguishing powder. Do not use water.
- **For safety reasons unsuitable extinguishing agents:** Water with full jet
- **5.2 Special hazards arising from the substance or mixture :**
Formation of toxic gases is possible during heating or in case of fire.
In case of fire, the following can be released:
Carbon monoxide (CO)
CO₂
Under certain fire conditions, traces of other toxic gases cannot be excluded.
- **5.3 Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

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 product to reach sewage system or any water course.
Inform respective authorities in case of seepage into water course or sewage system.
Do not allow the product to enter sewers/ surface water or ground water.
- **6.3 Methods and material for containment and cleaning up:**
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
- **6.4 Reference to other sections :**
See Section 7 for information on safe handling.
See Section 8 for information on personal protective equipment.
See Section 13 for disposal information.

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling :**
Keep receptacles tightly sealed.
Keep away from heat and direct sunlight.
Open and handle receptacle with care.
- **Information about fire - and explosion protection:**
Do not spray onto a naked flame or any incandescent material.



Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

· **7.2 Conditions for safe storage, including any incompatibilities**

· **Storage:**

· **Requirements to be met by storerooms and receptacles:**

Store in a cool location.

Observe official regulations on storing packagings with pressurised containers.

· **Information about storage in one common storage facility: Not required.**

· **Further information about storage conditions:**

Keep container tightly sealed.

Do not seal receptacle gas tight.

Store in cool, dry conditions in well sealed receptacles.

Protect from heat and direct sunlight.

· **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 section 7.**

· **8.1 Control parameters**

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

CAS: 106-97-8 butane (10-25%)

WEL (Great Britain)	Short-term value: 1810 mg/m ³ , 750 ppm Long-term value: 1450 mg/m ³ , 600 ppm Carc (if more than 0.1% of buta-1.3-diene)
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MAK (Switzerland)	Short-term value: 7600 mg/m ³ , 3200 ppm Long-term value: 1900 mg/m ³ , 800 ppm
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CAS: 74-98-6 propane (10-25%)

MAK (Switzerland)	Short-term value: 7200 mg/m ³ , 4000 ppm Long-term value: 1800 mg/m ³ , 1000 ppm
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CAS: 75-28-5 isobutane (5-10%)

MAK (Switzerland)	Short-term value: 7600 mg/m ³ , 3200 ppm Long-term value: 1900 mg/m ³ , 800 ppm
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· **Additional information:**

The most current valid lists have been used as a basis for the production of this document.

· **8.2 Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Avoid contact with the eyes and skin.

Immediately remove all soiled and contaminated clothing

Keep away from food, beverages and petfood.

Wash hands before breaks and at the end of work.

· **Respiratory protection:**

Use suitable respiratory protective device in case of insufficient ventilation.

Filter P1

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· Protection of hands:



Protective gloves

· Gloves material : Nitrile rubber, NBR

· Eye protection:



Safety glasses

SECTION 9: Physical and chemical properties

· 9.1 Information on basic physical and chemical properties

· General Information

· Appearance:

Form:	Aerosol
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:	-44.5 °C

· Flash point: -97 °C

· Flammability (solid, gas): Not applicable.

· Ignition temperature: 365 °C

· Decomposition temperature: Not determined.

· Auto-ignition temperature: Product is not self igniting.

· Explosive properties: Not determined.

· Explosion limits:

Lower:	1.5 Vol %
Upper:	10.9 Vol %

· Vapour pressure at 20 °C: 8300 hPa

· Density at 20 °C: 1.05663 g/cm³

· Relative density : Not determined.

· Vapour density : Not determined.

· Evaporation rate : Not applicable.

· Solubility in / Miscibility with water:

Not miscible or difficult to mix.

· Segregation coefficient (n-octanol/water): Not determined.

· Viscosity:

Dynamic: Not determined.

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Kinematic: Not determined.
9.2 Other information : No further relevant information available.

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:** Carbon monoxide and carbon dioxide

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:**

CAS: 1314-13-2 zinc oxide

Oral	LD50	7,950 mg/kg (mouse)
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CAS: 61788-90-7 cocoalkyldimethylamine oxide

Oral	LD50	>2,000 mg/kg (rat)
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- **Primary irritant effect:**
- **On the skin:** Based on available data, the classification criteria are not met.
- **On the eyes:** Based on available data, the classification criteria are not met.
- **Respiratory or skin sensitization** 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** 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.

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.
- **Ecotoxicological effects:**
- **Remark:** Harmful to fish
- **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.

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- Harmful to aquatic organisms*
- **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 of together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**

HP 3	Flammable
HP 14	Ecotoxic

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

SECTION 14: Transport information

- **14.1 UN-Number**
- **ADR, IMDG, IATA** UN1950

- **14.2 UN proper shipping name**
- **ADR** UN1950 AEROSOLS
- **IMDG** AEROSOLS
- **IATA** AEROSOLS, flammable

- **14.3 Transport hazard class(es)**

- **ADR**



- **Class** 2 5F Gases.
- **Label** 2.1

- **IMDG, IATA**



- **Class** 2.1
- **Label** 2.1

- **14.4 Packing group**
- **ADR, IMDG, IATA** Not classified as hazardous for transport

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· 14.5 Environmental hazards:	Not applicable.
· 14.6 Special precautions for user	Warning: Gases.
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
· Transport/Additional information:	
· ADR	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Transport category	2
· Tunnel restriction code	D
· IMDG	
· Limited quantities (LQ)	1L
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· UN "Model Regulation":	UN 1950 AEROSOLS, 2.1

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 P3a** FLAMMABLE AEROSOLS
- **Qualifying quantity (tonnes) for the application of lower-tier requirements** 150 t
- **Qualifying quantity (tonnes) for the application of upper-tier requirements** 500 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.

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**
H220 Extremely flammable gas.

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*H280 Contains gas under pressure; may explode if heated.**H302 Harmful if swallowed.**H315 Causes skin irritation.**H318 Causes serious eye damage.**H400 Very toxic to aquatic life.**H410 Very toxic to aquatic life with long lasting effects.**H411 Toxic to aquatic life with long lasting effects.*

· Classification according to Regulation (EC) No 1272/2008

Aerosols	Bridging principles
Hazardous to the aquatic environment - long-term (chronic) aquatic hazard	The classification of the mixture is generally based on the calculation method using substance data according to Regulation (EC) No 1272/2008.

· 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

SVHC: Substances of Very High Concern

vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases – Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure – Compressed gas

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

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 2: Hazardous to the aquatic environment - long-term aquatic hazard – Category 2

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3