

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

Printing date 07.02.2023

Version number 3 (replaces version 2)

Revision: 21.06.2022

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

- **1.1 Product identifier**
- **Trade name:** **KILLER**
- **1.2 Relevant identified uses of the substance or mixture and uses advised against**
- **Life cycle stages** C Consumer use
- **Sector of Use** SU21 Consumer uses: Private households / general public / consumers
- **Product category** PC35 Washing and cleaning products (including solvent based products)
- **Application of the substance / the mixture** Exterior vehicle cleaner
- **Uses advised against**  
The mixture is not recommended for industrial, professional and consumer applications not specified as relevant identified uses
- **1.3 Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
MA-FRA S.p.A. a Socio Unico  
Via Aquileia, 44/46  
20021 Baranzate (MI) ITALIA  
Tel. +39 023569981  
[www.mafra.com](http://www.mafra.com)  
[mafra@mafra.it](mailto:mafra@mafra.it)
- **Informing department:**  
E-mail: [lab@mafra.it](mailto:lab@mafra.it)  
[info@mafra.it](mailto:info@mafra.it)
- **1.4 Emergency telephone number:** In case of accident call the emergency number 112

**SECTION 2: Hazards identification**

- **2.1 Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**  
The product is not classified as hazardous according to the GB CLP Regulation.
- **2.2 Label elements**
- **Labelling according to Regulation (EC) No 1272/2008** Void
- **Hazard pictograms** Void
- **Signal word** Void
- **Hazard statements** Void
- **Additional information:**  
Keep out of the reach of children
- **2.3 Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

**SECTION 3: Composition/information on ingredients**

- **3.1 Substances**
- **CAS No. Designation:**  
7732-18-5 water, distilled, conductivity or of similar purity
- **Identification number(s):**
- **EC number:** 231-791-2
- **3.2 Mixtures**
- **Description:** Mixture of substances

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**- Dangerous components:**

CAS: 111-76-2	2-butoxyethanol	1-<3%
EINECS: 203-905-0	⚠ Acute Tox. 4, H302; Acute Tox. 4, H332; Skin Irrit. 2, H315; Eye Irrit. 2, H319	
Reg.nr.: 01-2119475108-36	ATE: LD50 oral: 1,200 mg/Kg	

**- Regulation (EC) No 648/2004**

amphoteric surfactants, perfumes (LINALOOL)	<5%
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**- 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 symptoms.**- After skin contact** The product is not skin irritating.**- After eye contact** Rinse opened eye for several minutes under running water.**- After swallowing** In case of persistent symptoms consult doctor.**- 4.2 Most important symptoms and effects, both acute and delayed**

Sickness

No further relevant information available.

**- 4.3 Indication of any immediate medical attention and special treatment needed**

If swallowed, gastric irrigation

Medical supervision for at least 48 hours

**SECTION 5: Firefighting measures****- 5.1 Extinguishing media****- Suitable extinguishing agents**CO<sub>2</sub>, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.

Use fire fighting measures that suit the environment.

**- 5.2 Special hazards arising from the substance or mixture**

Can be released in case of fire

Carbon monoxide (CO)

**- 5.3 Advice for firefighters****- Protective equipment:**

Do not inhale explosion gases or combustion gases.

Protection means for respiratory tract

**- Additional information**

Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.

**SECTION 6: Accidental release measures****- 6.1 Personal precautions, protective equipment and emergency procedures** Protective gloves. (EN 374)**- For non-emergency personnel**

Ensure adequate ventilation

Keep away from ignition sources

Wear protective clothing.

**- For emergency responders**

Not applicable

PVC gloves

Nitrile rubber, NBR

**- 6.2 Environmental precautions:**

Dilute with much water.

Do not allow to enter drainage system, 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).

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**- 6.4 Reference to other sections**

No dangerous materials are released.  
See Section 7 for information on safe handling  
See Section 8 for information on personal protection equipment.  
See Section 13 for information on disposal.

**SECTION 7: Handling and storage****- 7.1 Precautions for safe handling**

No special measures required.  
Take off immediately all contaminated clothing  
Wash hands during breaks and at the end of the work.  
Do not eat, drink or smoke while working.

**- Information about protection against explosions and fires:** Protect from heat.

**- 7.2 Conditions for safe storage, including any incompatibilities****- Storage**

**- Requirements to be met by storerooms and containers:** Store only in the original container.

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

**- Further information about storage conditions:** None.

**- Class according to regulation on inflammable liquids:** Void

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

**SECTION 8: Exposure controls/personal protection****- 8.1 Control parameters**

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

**111-76-2 2-butoxyethanol**

<i>WEL</i>	Short-term value: 246 mg/m <sup>3</sup> , 50 ppm
	Long-term value: 123 mg/m <sup>3</sup> , 25 ppm
	Sk, BMGV

**- DNELs****112-34-5 2-(2-butoxyethoxy)ethanol**

Oral	Systemic Long-term Effects	5 mg/Kg bw/day (Consumers)
Dermal	Systemic long-term effects	83 mg/Kg bw/day (Industrial Workers)
Inhalative	Local long-term effects	50 mg/Kg bw/day (Consumers)
		67.5 mg/m <sup>3</sup> (Industrial Workers)
	Local short-term effects	40.5 mg/m <sup>3</sup> (Consumers)
		101.2 mg/m <sup>3</sup> (Industrial Workers)
Systemic long-term effects	60.7 mg/m <sup>3</sup> (Consumers)	
	67.5 mg/m <sup>3</sup> (Industrial Workers)	
		40.5 mg/m <sup>3</sup> (Consumers)

**141-43-5 2-aminoethanol**

Oral	Systemic Long-term Effects	3.75 mg/Kg bw/day (Consumers)
Dermal	Systemic long-term effects	3 mg/Kg bw/day (Industrial Workers)
Inhalative	Local long-term effects	1.5 mg/Kg bw/day (Consumers)
		0.51 mg/m <sup>3</sup> (Industrial Workers)
	Systemic long-term effects	0.18 mg/m <sup>3</sup> (Consumers)
		0.51 mg/m <sup>3</sup> (Industrial Workers)
		0.18 mg/m <sup>3</sup> (Consumers)

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**147170-44-3 Cocamidopropyl Betaine**

Oral	Systemic Long-term Effects	7.5 mg/Kg bw/day (Consumers)
Dermal	Systemic long-term effects	12.5 mg/Kg bw/day (Industrial Workers) 7.5 mg/Kg bw/day (Consumers)
Inhalative	Systemic long-term effects	44 mg/m <sup>3</sup> (Industrial Workers) 13.4 mg/m <sup>3</sup> (Consumers)

**- PNECs****112-34-5 2-(2-butoxyethoxy)ethanol**

PNEC STP	200 mg/L (STP)
Soil	0.32 mg/Kg (Soil)
Soft Water	1.1 mg/L (Water)
Sea water	0.11 mg/L (Water)
Sediment (soft water)	4.4 mg/Kg (Soil)
Sediment (sea water)	0.44 mg/Kg (Soil)

**141-43-5 2-aminoethanol**

PNEC STP	100 mg/L (STP)
Soil	1.29 mg/Kg (Soil)
Soft Water	0.07 mg/L (Water)
Sea water	0.007 mg/L (Water)
Sediment (soft water)	0.357 mg/Kg (Soil)
Sediment (sea water)	0.0357 mg/Kg (Soil)

**147170-44-3 Cocamidopropyl Betaine**

PNEC STP	3,000 mg/L (STP)
Soil	0.8 mg/Kg (Soil)
Soft Water	0.013 mg/L (Water)
Sea water	0.001 mg/L (Water)
Sediment (soft water)	14.8 mg/Kg (Water)
Sediment (sea water)	1.48 mg/Kg (Soil)

**- Ingredients with biological limit values:****111-76-2 2-butoxyethanol**

BMGV	240 mmol/mol creatinine
	Medium: urine
	Sampling time: post shift
	Parameter: butoxyacetic acid

**- Additional information:** The lists that were valid during the compilation were used as basis.

**- 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** Wash hands during breaks and at the end of the work.
- **Breathing equipment:** Not required.
- **Hand protection**



Protective gloves. (EN 374)

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  
Preventive skin protection by use of skin-protecting agents is recommended.

**- Material of gloves**

Not applicable

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PVC gloves

Nitrile rubber, NBR

**- Penetration time of glove material**

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

**- Eye/face protection**

Safety glasses recommended during refilling.

**- Environmental exposure controls** Disposal must be made according to official regulations.**SECTION 9: Physical and chemical properties****- 9.1 Information on basic physical and chemical properties****- General Information**

<b>- Physical state</b>	Fluid
<b>- Colour:</b>	Yellow
<b>- Odour:</b>	Characteristic
<b>- Odour threshold:</b>	Not determined.
<b>- Melting point/freezing point:</b>	0 °C
<b>- Boiling point or initial boiling point and boiling range</b>	100 °C
<b>- Flammability</b>	Not applicable.
<b>- Lower and upper explosion limit</b>	
<b>- Lower:</b>	Not determined.
<b>- Upper:</b>	Not determined.
<b>- Flash point:</b>	Not applicable
<b>- Decomposition temperature:</b>	Not determined.
<b>- pH at 20 °C</b>	11
<b>- Viscosity:</b>	
<b>- Kinematic viscosity</b>	Not determined.
<b>- dynamic:</b>	Not determined.
<b>- Solubility</b>	
<b>- Water:</b>	Fully miscible
<b>- Partition coefficient n-octanol/water (log value)</b>	Not determined.
<b>- Vapour pressure at 20 °C:</b>	23 hPa
<b>- Density and/or relative density</b>	
<b>- Density at 20 °C</b>	1.01 g/cm <sup>3</sup>
<b>- Relative density</b>	Not determined.
<b>- Vapour density</b>	Not determined.

**- 9.2 Other information**

<b>- Appearance:</b>	
<b>- Form:</b>	Fluid
<b>- Important information on protection of health and environment, and on safety.</b>	
<b>- Self-inflammability:</b>	Product is not selfigniting.
<b>- Explosive properties:</b>	Product is not explosive.
<b>- Change in condition</b>	
<b>- Evaporation rate</b>	Not determined.

**- Information with regard to physical hazard classes**

<b>- Explosives</b>	Void
<b>- Flammable gases</b>	Void
<b>- Aerosols</b>	Void
<b>- Oxidising gases</b>	Void
<b>- Gases under pressure</b>	Void
<b>- Flammable liquids</b>	Void

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- 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 Stable under normal conditions
- 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: No dangerous decomposition products known

**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 that are relevant for classification:****112-34-5 2-(2-butoxyethoxy)ethanol**

Oral	LD50	2,410 mg/Kg (Rat)
Dermal	LD50	2,764 mg/Kg (Rabbit)

**141-43-5 2-aminoethanol**

Oral	LD50	1,089 mg/Kg (Rat)
Dermal	LD50	2,504 mg/Kg (Rabbit)
Inhalative	LC50 (6h)	>1.3 mg/L (Rat)

**147170-44-3 Cocamidopropyl Betaine**

Oral	LD50	2,335 mg/Kg (Rat)
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- Skin corrosion/irritation Based on available data, the classification criteria are not met.
- Serious eye damage/irritation Based on available data, the classification criteria are not met.
- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- 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.

**- 11.2 Information on other hazards****- Endocrine disrupting properties**

128-37-0 Butylated hydroxytoluene

List II

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### SECTION 12: Ecological information

#### - 12.1 Toxicity

##### - Aquatic toxicity:

##### 112-34-5 2-(2-butoxyethoxy)ethanol

LC50 (96h) 2,700 mg/L (Fish)

EC50 (48h) &gt;1,000 mg/L (Daphnia)

EC50 (96h) &gt;100 mg/L (Algae)

##### 141-43-5 2-aminoethanol

LC50 (96h) 349 mg/L (Fish)

EC50 (48h) 27.04 mg/L (Daphnia)

EC50 (72h) 2.8 mg/L (Algae)

##### 147170-44-3 Cocamidopropyl Betaine

LC50 (96h) 1.11 mg/L (Fish)

EC50 (72h) &gt;1.5 mg/L (Algae)

- 12.2 Persistence and degradability The contained surfactants are easily biodegradable

- 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 bodies or sewage system.

The surfactant(s) contained in this preparation complies(comply) with the biodegradability criteria as laid down in Regulation (EC) No.648/2004 on detergents. Data to support this assertion are held at the disposal of the competent authorities of the Member States and will be made available to them, at their direct request or at the request of a detergent manufacturer.

### 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.

##### - Uncleaned packagings:

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

- Recommended cleaning agent: Water, if necessary with cleaning agent.

### SECTION 14: Transport information

#### - 14.1 UN number or ID number

- ADR, ADN, IMDG, IATA Void

#### - 14.2 UN proper shipping name

- ADR, ADN, IMDG, IATA Void

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

- ADR, ADN, IMDG, IATA

- Class Void

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- |  |                 |
|--|-----------------|
| - 14.4 Packing group<br>- ADR, IMDG, IATA                      | Void            |
| - 14.5 Environmental hazards:<br>- Marine pollutant:           | No              |
| - 14.6 Special precautions for user                            | Not applicable. |
| - 14.7 Maritime transport in bulk according to IMO instruments | Not applicable. |

### 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.
- National regulations
- Classification according to VbF: Void
- Technical instructions (air):

Class	Share in %
NK	1.5

- Water hazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

### SECTION 16: Other information

- **Relevant phrases**  
H302 Harmful if swallowed.  
H315 Causes skin irritation.  
H319 Causes serious eye irritation.  
H332 Harmful if inhaled.
- **Department issuing data specification sheet:** Ma-Fra Laboratories
- **Contact:** lab@mafra.it
- **Abbreviations and acronyms:**  
RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)  
ICAO: International Civil Aviation Organisation  
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)  
VbF: Verordnung über brennbare Flüssigkeiten, Österreich (Ordinance on the storage of combustible liquids, Austria)  
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  
Acute Tox. 4: Acute toxicity – Category 4  
Skin Irrit. 2: Skin corrosion/irritation – Category 2  
Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
- \* **Data compared to the previous version altered.**