

# Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



GREEN WAX RESCUE article number: 03

Version: 1.0 en

Replaces version of:

Version: (1)

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

### 1.1 Product identifier

Identification of the substance

**GREEN WAX RESCUE**

Article number

03

EC number

CAS number

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Relevant identified uses:

Green remover for natural and synthetic waxes. Tested on cultural heritage materials

Uses advised against:

Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household).

### 1.3 Details of the supplier of the safety data sheet

Lab4Green  
Via Torquato Tasso n. 108  
00185 Rome  
Italy

**e-mail:** [info@lab4green.it](mailto:info@lab4green.it)

**Website:** [www.labgreen.it](http://www.labgreen.it)

Competent person responsible for the safety data sheet:  
Andrea Macchia

Department Health, Safety and Environment

**e-mail (competent person):**

**[info@lab4green.it](mailto:info@lab4green.it)**

### 1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
CENTRO ANTIVELENI: Milano Roma	Piazza dell'Ospedale Maggiore, 3 Piazza Sant'Onofrio, 4	20161 Milano MI 00165 Roma (RM)	(+39) 02.66101029 (+39) 06.3054343	

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture Classification acc. to

GHS

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This substance does not meet the criteria for classification.

## 2.2 Label elements

Labelling not required

## 2.3 Other hazards

This material is combustible, but will not ignite readily.

### Results of PBT and vPvB assessment

According to the results of its assessment, this substance is not a PBT or a vPvB.

## SECTION 3: Composition/information on ingredients

### 3.1 Substances

Name of substance Mix of acetals and Fatty acid methyl esters (FAME)

Molecular formula

CAS No

EC No

#### Impurities/additives/constituents:

Name of substance	Identifier	Wt%
1-Butanol	CAS No 71-36-3	≤ 0,25
	EC No 200-751-6	

For full text of abbreviations: see SECTION 16

## SECTION 4: First aid measures

### 4.1 Description of first aid measures



#### General notes

Take off contaminated clothing.

#### Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following skin contact

Rinse skin with water/shower. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following eye contact

Rinse cautiously with water for several minutes. In all cases of doubt, or when symptoms persist, seek medical advice.

#### Following ingestion

Rinse mouth. Call a doctor if you feel unwell.

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**4.2 Most important symptoms and effects, both acute and delayed** Symptoms and effects are not known to date.

**4.3 Indication of any immediate medical attention and special treatment needed** none

### SECTION 5: Firefighting measures

#### 5.1 Extinguishing media



##### Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings  
water spray, dry extinguishing powder, BC-powder, carbon dioxide (CO<sub>2</sub>) **Unsuitable extinguishing media** water jet

**5.2 Special hazards arising from the substance or mixture** Combustible.

##### Hazardous combustion products

In case of fire may be liberated: Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

#### 5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus.

### SECTION 6: Accidental release measures

#### 6.1 Personal precautions, protective equipment and emergency procedures



##### For non-emergency personnel

No special measures are necessary.

#### 6.2 Environmental precautions

Keep away from drains, surface and ground water.

#### 6.3 Methods and material for containment and cleaning up Advice on

**how to contain a spill** Covering of drains.

##### Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

#### 6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

Provision of sufficient ventilation.

**Measures to prevent fire as well as aerosol and dust generation**

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Keep away from sources of ignition - No smoking.

## Advice on general occupational hygiene

Keep away from food, drink and animal feedingstuffs.

- 7.2 Conditions for safe storage, including any incompatibilities** Keep container tightly closed. **Incompatible substances or mixtures** Observe hints for combined storage.

## Consideration of other advice:

### Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

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

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### National limit values

#### Occupational exposure limit values (Workplace Exposure Limits):

This information is not available.

#### Human health values:

Relevant DNELs and other threshold levels						
Endpoint	Threshold level	Protection goal, route of exposure		Used in	Exposure time	
DNEL	126,6 mg/m <sup>3</sup>	human, inhalatory		worker (industry)	chronic - systemic effects	
DNEL	11,97 mg/kg bw/day	human, dermal		worker (industry)	chronic - systemic effects	
Relevant DNELs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
1-Butanol	71-36-3	DNEL	310 mg/m <sup>3</sup>	human, inhalatory	worker (industry)	chronic - local effects

#### Environmental values

Relevant PNECs and other threshold levels				
End-point	Threshold level	Organism	Environmental compartment	Exposure time
PNEC	197,5 µg/l	aquatic organisms	freshwater	short-term (single instance)

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PNEC	19,75 µg/l	aquatic organisms	marine water	short-term (single instance)
PNEC	1 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
PNEC	4,347 mg/µg	aquatic organisms	freshwater sediment	short-term (single instance)
PNEC	0,435 mg/µg	aquatic organisms	marine sediment	short-term (single instance)
PNEC	751,9 mg/µg	terrestrial organisms	soil	short-term (single instance)

## Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
1-Butanol	71-36-3	PNEC	0,082 mg/l	aquatic organisms	freshwater	short-term (single instance)
1-Butanol	71-36-3	PNEC	0,008 mg/l	aquatic organisms	marine water	short-term (single instance)
1-Butanol	71-36-3	PNEC	2.476 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
1-Butanol	71-36-3	PNEC	0,324 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
1-Butanol	71-36-3	PNEC	0,032 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
1-Butanol	71-36-3	PNEC	0,017 mg/kg	terrestrial organisms	soil	short-term (single instance)

## 8.2 Exposure controls

### Individual protection measures (personal protective equipment)

#### Eye/face protection



Use safety goggle with side protection.

#### Skin protection

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- **hand protection**

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374.

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- **type of material**

NBR (Nitrile rubber)

- **material thickness**

>0,11 mm

- **breakthrough times of the glove material**

>480 minutes (permeation: level 6)

- **other protection measures**

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

### Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C, colour code: Brown).

### Environmental exposure controls

Keep away from drains, surface and ground water.

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	-23,4 °C
Boiling point or initial boiling point and boiling	165,5 °C at 1.013 hPa (ECHA) range
Flammability	this material is combustible, but will not ignite readily
Lower and upper explosion limit	0,65 vol% (LEL) - 23,6 vol% (UEL)
Flash point	63 °C at 1 atm (ECHA)
Auto-ignition temperature	220 °C at 1.013 hPa (ECHA) (auto-ignition temperature (liquids and gases))
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	1,083 mm <sup>2</sup> /s at 25 °C
Dynamic viscosity	1,236 mPa s at 10 °C
<u>Solubility(ies)</u>	
Water solubility	0,222 g/l at 20 °C

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### Partition coefficient

Partition coefficient n-octanol/water (log value): 2,77 (pH value: 6,8, 21,5 °C) (ECHA)

Vapour pressure 0,79 hPa at 20 °C  
1 hPa at 22,7 °C  
3 Pa at 38,6 °C

### Density and/or relative density

Density 0,835 g/cm<sup>3</sup>  
Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

### Other safety parameters

Oxidising properties none

## 9.2 Other information

Information with regard to physical hazard classes: hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Surface tension 25,2 mN/m (25 °C) (ECHA)

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

This material is not reactive under normal ambient conditions.

#### **If heated**

Vapours may form explosive mixtures with air.

### 10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

### 10.3 Possibility of hazardous reactions

**Violent reaction with:** strong oxidiser, Strong acid

### 10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

### 10.5 Incompatible materials

There is no additional information.

### 10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.



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## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Classification acc. to GHS

This substance does not meet the criteria for classification.

#### Acute toxicity

Shall not be classified as acutely toxic.

Acute toxicity					
Exposure route	Endpoint	Value	Species	Method	Source
oral	LD50	6.873 mg/kg	rat		ECHA
dermal	LD50	>2.000 mg/ 4g	rat		ECHA
Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
1-Butanol	71-36-3	oral	LD50	2.292 mg/ 4g	rat
1-Butanol	71-36-3	dermal	LD50	3.430 mg/ 4g	rabbit

#### Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

#### Serious eye damage/eye irritation

Shall not be classified as seriously damaging to the eye or eye irritant.

#### Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

#### Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

#### Carcinogenicity

Shall not be classified as carcinogenic.

#### Reproductive toxicity

Shall not be classified as a reproductive toxicant.

#### Specific target organ toxicity - single exposure

Shall not be classified as a specific target organ toxicant (single exposure).

#### Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

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### **Aspiration hazard**

Shall not be classified as presenting an aspiration hazard.

### **Symptoms related to the physical, chemical and toxicological characteristics**

#### **• If swallowed**

Data are not available.

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- **If in eyes**

Data are not available.

- **If inhaled**

Data are not available.

- **If on skin**

Data are not available.

- **Other information** Health effects are not known.

## 11.2 Endocrine disrupting properties

Not listed.

11.3 **Information on other hazards** There is no additional information.

## SECTION 12: Ecological information

### 12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute)					
Endpoint	Value	Species	Source	Exposure time	
EC50	>100 mg/l	aquatic invertebrates	ECHA	48 h	
ErC50	>1,3 mg/l	algae	ECHA	72 h	
Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
1-Butanol	71-36-3	LC50	1.376 mg/l	fish	96 h
1-Butanol	71-36-3	EC50	1.328 mg/l	aquatic invertebrates	48 h
1-Butanol	71-36-3	ErC50	225 mg/l	algae	96 h
Aquatic toxicity (chronic)					

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Endpoint	Value	Species	Source	Exposure time
EC50	>6 mg/l	fish	ECHA	32 d
LC50	>6 mg/l	fish	ECHA	32 d

### Aquatic toxicity (chronic) of components of the mixture

Name of substance	CAS No	Endpoint	Value	Species	Exposure time
1-Butanol	71-36-3	EC50	18 mg/l	aquatic invertebrates	21 d

### Biodegradation

Data are not available.

## 12.2 Process of degradability

Process of degradability						
Process		Degradation rate		Time		
oxygen depletion		30 – 40 %		28 d		
Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
1-Butanol	71-36-3	biotic/abiotic	98 %	28 d		
1-Butanol	71-36-3	oxygen depletion	68 %	5 d		ECHA

## 12.3 Bioaccumulative potential

Does not significantly accumulate in organisms.

n-octanol/water (log KOW)	2,77 (pH value: 6,8, 21,5 °C) (ECHA)			
Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
1-Butanol	71-36-3		1 (pH value: 7, 25 °C)	

**12.4 Mobility in soil** Data are not available.

**12.5 Results of PBT and vPvB assessment** Data are not available.

## 12.6 Endocrine disrupting properties

Not listed.

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**12.7 Other adverse effects** Data are not available.

### SECTION 13: Disposal considerations

#### 13.1 Waste treatment methods



Consult the appropriate local waste disposal expert about waste disposal.

**Sewage disposal-relevant information** Do not empty into drains.

#### 13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Waste catalogue ordinance (Germany).

#### 13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions.

### SECTION 14: Transport information

<b>14.1 UN number or ID number</b>	not subject to transport regulations
<b>14.2 UN proper shipping name</b>	not assigned
<b>14.3 Transport hazard class(es)</b>	none
<b>14.4 Packing group</b>	not assigned
<b>14.5 Environmental hazards</b>	non-environmentally hazardous acc. to the dangerous goods regulations

**14.6 Special precautions for user**  
There is no additional information.

**14.7 Maritime transport in bulk according to IMO instruments** The cargo is not intended to be carried in bulk.

#### 14.8

##### Information for each of the UN Model Regulations

##### **Transport of dangerous goods by road, rail and inland waterway (ADR/RID/ADN) - Additional information**

Not subject to ADR, RID and ADN.

##### **International Maritime Dangerous Goods Code (IMDG) - Additional information** Not subject to

IMDG.

##### **International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information** Not subject to ICAO-

IATA.

### SECTION 15: Regulatory information

**15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**  
**Relevant provisions of the European Union (EU)**

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## Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
	not assigned		

## Deco-Paint Directive

VOC content	100 %
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## Industrial Emissions Directive (IED)

VOC content	100 %
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**Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)** not listed

**Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)** not listed

**Water Framework Directive (WFD)** not listed

**Regulation on the marketing and use of explosives precursors** not listed

**Regulation on drug precursors**  
not listed

**Regulation on substances that deplete the ozone layer (ODS)** not listed

**Regulation concerning the export and import of hazardous chemicals (PIC)** not listed

**Regulation on persistent organic pollutants (POP)** not listed

## National regulations(GB)

**List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list** not listed

**Restrictions according to GB REACH, Annex 17** not listed

## Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

## National inventories

Country	Inventory	Status
AU	AiIC	substance is listed
CA	DSL	substance is listed
CN	IECSC	substance is listed
EU	ECSI	substance is listed
EU	REACH Reg.	substance is listed
NZ	NZIoC	substance is listed

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PH	PICCS	substance is listed
TW	TCSI	substance is listed
US	TSCA	substance is listed

### Legend

AiIC	Australian Inventory of Industrial Chemicals DSL
	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China NZIoC New
	Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

## 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this substance.

## SECTION 16: Other information

### Indication of changes (revised safety data sheet)

Alignment to regulation:

Restructuring: section 9, section 14

Section	Former entry (text/value)	Actual entry (text/value)	Safety relevant
2.1	Classification according to Regulation (E 1272/2008 (CLP): This substance does not meet the criteria for classification in accordance with Regulation 1272/2008/EC.	C) No information for on No	yes
2.2	Signal word: not required		yes
2.3	Other hazards:  There is no additional information.	Other hazards:  This material is combustible, but will not ignite readily.	yes
2.3		Results of PBT and vPvB assessment:  According to the results of its assessment, this substance is not a PBT or a vPvB.	yes

### Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
ADN	Accord européen relatif au transport international des marchandises dangereuses par voies de navigation intérieures (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways)
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)

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BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
<b>Abbr.</b>	<b>Descriptions of used abbreviations</b>
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
IMDG	International Maritime Dangerous Goods Code
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
LEL	Lower explosion limit (LEL)
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals



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RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
UEL	Upper explosion limit (UEL)
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative

### Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

### Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.