

GLASS CLEANER

Revision date: 18.02.2025

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SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

GLASS CLEANER

Further trade names

Glass cleaner concentrate
Scheibenreiniger Konzentrat
Nettoyant vitres concentré
Limpiacristales concentrado

UFI: 7M22-T03N-PFMG-X7YF

1.2. Relevant identified uses of the substance or mixture and uses advised against**Use of the substance/mixture**

Glass cleaner

Uses advised against

No information available.

1.3. Details of the supplier of the safety data sheet

Company name: PMA/TOOLS GmbH
Street: Siemensring 42
Place: D-47877 Willich - Germany
Telephone: +49 2154 922230
E-mail: info@pma-tools.de
Contact person: Labor
E-mail: msds@pma-tools.de (Please DO NOT use for requesting Safety Data Sheets.)
Internet: www.pma-tools.de
Responsible Department: Laboratory

1.4. Emergency telephone number:

Telephone number of the company in case of emergencies (24 h):
+49 (0) 700 / 24 112 112 (PMR)
+1 872 5888271 (PMR)

Emergency information services / official advisory body:
<UK> National Poisons Information Service (24 h): 0870 600 6266 (UK only)

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****GB CLP Regulation**

Eye Irrit. 2; H319

Full text of hazard statements: see SECTION 16.

2.2. Label elements**GB CLP Regulation****Signal word:** Warning**Pictograms:****Hazard statements**

H319 Causes serious eye irritation.

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Precautionary statements

P101	If medical advice is needed, have product container or label at hand.
P102	Keep out of reach of children.
P264	Wash hands thoroughly after handling.
P280	Wear protective gloves/protective clothing and eye protection/face protection.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+P313	If eye irritation persists: Get medical advice/attention.

Special labelling of certain mixtures

EUH208	Contains (R)-p-mentha-1,8-diene; d-limonene. May produce an allergic reaction.
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2.3. Other hazards

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII. Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

SECTION 3: Composition/information on ingredients**3.2. Mixtures****Chemical characterization**

Mixture of the following substances with non-hazardous additions.

Hazardous components

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (GB CLP Regulation)	
68891-38-3	Fatty alcohol C12/14 ether sulphate, sodium salt	5 - < 10 %
	500-234-8	01-2119488639-16
	Skin Irrit. 2, Eye Dam. 1, Aquatic Chronic 3; H315 H318 H412	
68131-39-5	Alcohols, C12-15, ethoxylated	1 - < 5 %
	500-195-7	
	Acute Tox. 4, Eye Irrit. 2; H302 H319	
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene	< 1 %
	227-813-5	601-096-00-2
	Flam. Liq. 3, Skin Irrit. 2, Skin Sens. 1B, Asp. Tox. 1, Aquatic Acute 1, Aquatic Chronic 3; H226 H315 H317 H304 H400 H412	

Full text of H and EUH statements: see section 16.

Specific Conc. Limits, M-factors and ATE

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
68891-38-3	500-234-8	Fatty alcohol C12/14 ether sulphate, sodium salt	5 - < 10 %
		dermal: LD50 = > 2000 mg/kg; oral: LD50 = >= 4100 mg/kg	
68131-39-5	500-195-7	Alcohols, C12-15, ethoxylated	1 - < 5 %
		oral: LD50 = >=1000 mg/kg	
5989-27-5	227-813-5	(R)-p-mentha-1,8-diene; d-limonene	< 1 %
		dermal: LD50 = > 5000 mg/kg; oral: LD50 = > 5000 mg/kg Aquatic Acute 1; H400: M=1	

Further Information

Regulation (EC) No. 648/2004 [Detergents regulation].

Contains: 5 - < 15 % anionic surfactants, < 5 non-ionic surfactants, Fragrances, D-LIMONENE

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SECTION 4: First aid measures**4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection! Remove affected person from the danger area and lay down.
Never give anything by mouth to an unconscious person or a person with cramps.
If unconscious but breathing normally, place in recovery position and seek medical advice.

After inhalation

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing.

After contact with skin

After contact with skin, wash immediately with plenty of water and soap. Remove contaminated, saturated clothing immediately. In case of skin irritation, consult a physician.

After contact with eyes

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. In case of eye irritation consult an ophthalmologist.

After ingestion

Rinse mouth. Let 1 glass of water be drunken in little sips (dilution effect). Get medical advice/attention if you feel unwell.

4.2. Most important symptoms and effects, both acute and delayed

After eye contact: If eye irritation persists: Get medical advice/attention.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures**5.1. Extinguishing media****Suitable extinguishing media**

Carbon dioxide (CO₂), Foam, Extinguishing powder.
Co-ordinate fire-fighting measures to the fire surroundings.

Unsuitable extinguishing media

Full water jet

5.2. Special hazards arising from the substance or mixture

The product itself does not burn.
In case of fire may be liberated: Gases/vapours, toxic

5.3. Advice for firefighters

Wear a self-contained breathing apparatus and chemical protective clothing.

Additional information

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

SECTION 6: Accidental release measures**6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove persons to safety.
Use personal protection equipment. See section 8.

6.2. Environmental precautions

Do not allow uncontrolled discharge of product into the environment. Stop leak if safe to do so. Collect spillage.
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.

6.3. Methods and material for containment and cleaning up

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Other information

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents). Treat the recovered material as prescribed in the section on waste disposal. Clear contaminated areas thoroughly. Wash with plenty of water.

6.4. Reference to other sections

Safe handling: see section 7

Personal protection equipment: see section 8

Disposal: see section 13

SECTION 7: Handling and storage**7.1. Precautions for safe handling****Advice on safe handling**

Use personal protection equipment. See section 8.

Advice on protection against fire and explosion

No special measures are necessary.

Advice on general occupational hygiene

Take off contaminated clothing. Wash hands before breaks and after work. When using do not eat or drink.

Keep away from food, drink and animal feedingstuffs. Contaminated work clothing should not be allowed out of the workplace.

7.2. Conditions for safe storage, including any incompatibilities**Requirements for storage rooms and vessels**

Keep/Store only in original container.

Keep container tightly closed in a cool, well-ventilated place.

7.3. Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection**8.1. Control parameters****Additional advice on limit values**

To date, no national critical limit values exist.

8.2. Exposure controls**Appropriate engineering controls**

Provide adequate ventilation. Avoid contact with eyes and skin.

Individual protection measures, such as personal protective equipment**Eye/face protection**

Wear eye/face protection. goggles (EN 166)

Hand protection

When handling with chemical substances, protective gloves must be worn with the CE-label including the four control digits. The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. Breakthrough times and swelling properties of the material must be taken into consideration.

Wear suitable gloves. (EN 374).

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Recommended material:

- Butyl caoutchouc (butyl rubber) - Thickness of the glove material: $\geq 0,5$ mm- NBR (Nitrile rubber) - Thickness of the glove material: $\geq 0,35$ mm

Breakthrough time:: Index No. 2, > 30 Min. / Index No. 6, > 480 Min.

Replace when worn.

Recommendation: Use protective skin cream before handling the product.

Skin protection

Wear suitable protective clothing.

When handling with chemical substances, protective clothing with CE-labels including the four control digits must be worn. (89/686/EWG).

Recommended protective clothing articles: compliant EN 14605 / EN 13982.

Respiratory protection

Usually no personal respirative protection necessary.

Environmental exposure controls

No information available.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state:	Liquid
Colour:	red
Odour:	Soap
Odour threshold:	No data available

Changes in the physical state

Melting point/freezing point:	No data available
Boiling point or initial boiling point and boiling range:	No data available
Flash point:	No data available

Explosive properties

not explosive according to EU A.14

Lower explosion limits:	No data available
Upper explosion limits:	No data available
Auto-ignition temperature:	No data available
pH-Value (at 20 °C):	7
Viscosity / dynamic:	No data available
Viscosity / kinematic:	No data available
Water solubility:	miscible
Relative density:	No data available
Particle characteristics:	No data available

9.2. Other information**Information with regard to physical hazard classes**

Sustaining combustion:	No data available
Oxidizing properties	
Not oxidising.	

Other safety characteristics**Further Information**

No data available

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SECTION 10: Stability and reactivity

10.1. Reactivity

The product itself does not burn.

10.2. Chemical stability

The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

No information available.

10.4. Conditions to avoid

See SECTION 7: Handling and storage

10.5. Incompatible materials

Oxidising agent, strong

10.6. Hazardous decomposition products

The product is stable under storage at normal ambient temperatures.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in GB CLP Regulation**Acute toxicity**

Based on available data, the classification criteria are not met.

ATEmix calculated

ATE (oral) > 2000 mg/kg; ATE (dermal) > 2000 mg/kg; ATE (inhalation vapour) > 20 mg/l; ATE (inhalation dust/mist) > 5 mg/l

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
68891-38-3	Fatty alcohol C12/14 ether sulphate, sodium salt				
	oral	LD50 mg/kg	>= 4100	Rat	
	dermal	LD50 mg/kg	> 2000	Rat	
68131-39-5	Alcohols, C12-15, ethoxylated				
	oral	LD50 mg/kg	>=1000	Rat	
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene				
	oral	LD50 mg/kg	> 5000	Rat	GESTIS
	dermal	LD50 mg/kg	> 5000	Rabbit	GESTIS

Irritation and corrosivity

Serious eye damage/eye irritation: Causes serious eye irritation.

Skin corrosion/irritation: Based on available data, the classification criteria are not met.

Sensitising effects

Based on available data, the classification criteria are not met.

Contains (R)-p-mentha-1,8-diene; d-limonene. May produce an allergic reaction.

Carcinogenic/mutagenic/toxic effects 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.

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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**

Product does not contain a substance above legal limits included in the list established in accordance with Article 59(1) of Regulation (EC) No 1907/2006 for having endocrine disrupting properties or is identified to have endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605.

Other information

No information available.

SECTION 12: Ecological information

12.1. Toxicity

Based on available data, the classification criteria are not met.

There are no data available on the mixture itself.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h] [d]	Species	Source	Method
68891-38-3	Fatty alcohol C12/14 ether sulphate, sodium salt					
	Acute fish toxicity	LC50	7,1 mg/l	96 h	Fish	
	Acute algae toxicity	ErC50	7,5 mg/l	96 h	Algae	
	Acute crustacea toxicity	EC50	7,2 mg/l	48 h	Daphnia magna (Big water flea)	
	Algae toxicity	NOEC mg/l	0,95		Algae	
	Crustacea toxicity	NOEC mg/l	0,27	21 d	Daphnia magna (Big water flea)	
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene					
	Acute fish toxicity	LC50	0,7 mg/l	96 h	Pimephales promelas	
	Acute crustacea toxicity	EC50 mg/l	0,42	48 h	Daphnia magna	

12.2. Persistence and degradability

There are no data available on the mixture itself.

12.3. Bioaccumulative potential

There are no data available on the mixture itself.

Partition coefficient n-octanol/water

CAS No	Chemical name	Log Pow
5989-27-5	(R)-p-mentha-1,8-diene; d-limonene	4,23

12.4. Mobility in soil

There are no data available on the mixture itself.

12.5. Results of PBT and vPvB assessment

The substances in the mixture do not meet the PBT/vPvB criteria according to UK REACH.

12.6. Endocrine disrupting properties

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

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12.7. Other adverse effects

No information available.

Further information

Avoid release to the environment.

SECTION 13: Disposal considerations**13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains. Do not allow to enter into soil/subsoil. Dispose of waste according to applicable legislation.

The waste key according to the European Waste Catalogue (EWC number) refers to the real wastes origin and therefore is not product- but use-oriented. The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process. Recommendation: EAK 070601

List of Wastes Code - residues/unused products

070601 WASTES FROM ORGANIC CHEMICAL PROCESSES; wastes from the MFSU of fats, grease, soaps, detergents, disinfectants and cosmetics; aqueous washing liquids and mother liquors; hazardous waste

List of Wastes Code - contaminated packaging

150102 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); plastic packaging

Contaminated packaging

Dispose of waste according to applicable legislation.

Handle contaminated packages in the same way as the substance itself.

SECTION 14: Transport information**Land transport (ADR/RID)**

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

Inland waterways transport (ADN)

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

Marine transport (IMDG)

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

Air transport (ICAO-TI/IATA-DGR)

14.1. UN number or ID number: not applicable

14.2. UN proper shipping name: No dangerous good in sense of these transport regulations.

14.5. Environmental hazards

ENVIRONMENTALLY HAZARDOUS: No

14.6. Special precautions for user

No special measures are necessary.

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****EU regulatory information**

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Restrictions on use (REACH, annex XVII):

Entry 3

Information according to Directive 2012/18/EU (SEVESO III):

Not subject to 2012/18/EU (SEVESO III)

National regulatory information

Employment restrictions:

Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC).

Water hazard class (D):

2 - obviously hazardous to water

Additional information

Berufsgenossenschaftliche Informationen (DGUV-Informationen): 213-079 TRGS 510

15.2. Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information**Changes**

This data sheet contains changes from the previous version in section(s): 1,2,3,4,5,6,7,8,9,10,11,12,13,14,15,16.

Abbreviations and acronyms

ADN: Accord européen relatif au transport international des marchandises dangereuses par voie de navigation intérieure (European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways).

ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road).

ATE: Acute Toxicity Estimate.

AwSV: Anlagenverordnung wassergefährdender Stoffe (Regulation on facilities handling substances dangerous to water).

BGI: Berufsgenossenschaftliche Informationen (trade association information).

BGR: Berufsgenossenschaftliche Regeln (trade association regulation).

CAS: Chemical Abstracts Service.

CEN: Comité Européen de Normalisation European (Committee for Standardization).

CLP: Classification, Labelling and Packaging of substances and mixtures (REGULATION (EC) No 1272/2008).

DIN: Deutsches Institut für Normung (German institute for standardization).

DMEL: Derived Minimum Effect Level.

DNEL: Derived No Effect Level.

EC: European Community.

EC50: Half maximal effective concentration.

ECHA: European Chemicals Agency.

EG: Europäische Gemeinschaft (European Community).

EINECS: European Inventory of Existing Commercial Chemical Substances.

ELINCS: European List of Notified Chemical Substances.

EN: European Norms.

GHS: Globally Harmonized System of Classification and Labelling of Chemicals.

IATA-DGR: International Air Transport Association - Dangerous Goods Regulations.

IBC: Intermediate Bulk Container.

IC50 / ErC50: Inhibitory concentration, 50 %.

ICAO-TI: International Civil Aviation Organization - Technical Instructions for the Safe Transport of Dangerous Goods by Air.

IMDG: International Maritime Code for Dangerous Goods.

ISO: International Organization for Standardization.

IUPAC: International Union for Pure and Applied Chemistry.

LC50: Lethal concentration, 50 %.

LD50: Lethal dose, 50 %.

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log Kow (Pow): Partition coefficient n-octanol/water.

LQ: Limited Quantities.

MARPOL: International Convention for the Prevention of Marine Pollution from Ships.

OECD: Organisation for Economic Co-operation and Development.

PBT: persistent, bioaccumulative and toxic.

PNEC: Predicted No Effect Concentration.

REACH: Registration, Evaluation, Authorisation and Restriction of Chemicals (REGULATION (EC) No 1907/2006).

RID: Règlement concernant le transport International ferroviaire de marchandises Dangereuses (Regulation concerning the International Carriage of Dangerous Goods by Rail).

SVHC: Substances of Very High Concern.

STOT - RE: Specific Target Organ Toxicity - Repeated Exposure.

STOT - SE: Specific Target Organ Toxicity - Single Exposure.

TRGS: Technische Regel für Gefahrstoffe (technical guideline for the handling of hazardous materials).

UFI: Unique Formula Identifier.

UN: Untited Nations.

VOC: Volatile organic compounds.

vPvB: very persistent and very bioaccumulative.

WGK: Wassergefährdungsklasse (water hazard class).

Relevant H and EUH statements (number and full text)

H226	Flammable liquid and vapour.
H302	Harmful if swallowed.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H400	Very toxic to aquatic life.
H412	Harmful to aquatic life with long lasting effects.
EUH208	Contains (R)-p-mentha-1,8-diene; d-limonene. May produce an allergic reaction.

Further Information

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights. The receiver of our product is singularly responsible for adhering to existing laws and regulations.

The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.

(The data for the relevant ingredients were taken respectively from the last version of the sub-contractor's safety data sheet.)