

# Safety Data Sheet

## according to HPR, Schedule 1

Printing date 03/01/2022

Reviewed on 03/01/2022

### 1 Identification

#### Product identifier

Trade name: **Graconol**

Article number: 3010-0567

Application of the substance / the mixture  
Lubricant  
Cleaning material/ Detergent

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

Manufacturer/Supplier: Hersteller/Manufacturer:  
Graichen Produktions- und Vertriebs-GmbH  
Darmstädter Str. 127  
D-64625 Bensheim  
Tel.: +49(0)6251 / 7707880  
Fax: +49(0)6251 / 77901  
e-mail: ehs@graichen-bensheim.de  
http://www.graichen.net

Information department: Environment protection department

Emergency telephone number: Advice centre for poisoning university Mainz phone +49(0)6131/19240  
or poison information: +49(0)700/GIFTINFO

### 2 Hazard identification

#### Classification of the substance or mixture

Flammable Liquids - Category 2 H225 Highly flammable liquid and vapour.

Carcinogenicity - Category 1A H350 May cause cancer.

#### Label elements

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

Hazard pictograms



GHS02 GHS08

Signal word

Danger

Hazard-determining components of labeling:

Hazard statements

Precautionary statements

ethanol  
Highly flammable liquid and vapour.  
May cause cancer.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
Keep container tightly closed.  
Ground and bond container and receiving equipment.  
Use explosion-proof [electrical/ventilating/lighting] equipment.  
Use non-sparking tools.  
Take actions to prevent static discharges.  
Wear protective gloves/protective clothing/eye protection/face protection.  
IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].  
IF exposed or concerned: Get medical advice/attention.  
In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
Store in a well-ventilated place. Keep cool.  
Store locked up.  
Dispose of contents/container in accordance with local/regional/national/international regulations.

#### Information pertaining to particular dangers for man and environment:

NFPA ratings (scale 0 - 4)



Health = 0  
Fire = 3  
Reactivity = 0

HMIS-ratings (scale 0 - 4)



Health = \*0  
Fire = 3  
Reactivity = 0

### 3 Composition/Information on ingredients

#### Chemical characterization: Mixtures

Dangerous components:

CAS: 64-17-5	ethanol	80 – 100% w/w
	Flammable Liquids - Category 2, H225;  Carcinogenicity - Category 1A, H350	
CAS: 78-93-3	butanone	0.1 – 1% w/w
	Flammable Liquids - Category 2, H225;  Eye Irritation - Category 2A, H319; Specific Target Organ Toxicity - Single Exposure - Category 3, H336	

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. Additional information: For the wording of the listed hazard phrases refer to section 16.

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### 4 First-aid measures

#### . Description of first aid measures

- . General information: Take affected persons out of danger area and lay down.  
Personal protection for the First Aider.
- . After inhalation: Take affected persons into fresh air and keep quiet.  
In case of unconsciousness place patient stably in side position for transportation.  
Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist.
- . After skin contact: If skin irritation continues, consult a doctor.  
Immediately rinse with water.
- . After eye contact: Rinse opened eye for several minutes under running water.  
Protect unharmed eye.  
Call a doctor immediately.
- . After swallowing: Rinse out mouth and then drink plenty of water.  
Immediately call a doctor.  
A person vomiting while lying on their back should be turned onto their side.  
Do not induce vomiting; immediately call for medical help.
- . Information for doctor:  
. Most important symptoms and effects, both acute and delayed  
Gastric or intestinal disorders  
Nausea  
Dizziness  
Unconsciousness
- . Indication of any immediate medical attention and special treatment needed  
No further relevant information available.

### 5 Fire-fighting measures

- . **Extinguishing media**  
. Suitable extinguishing agents: CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- . For safety reasons unsuitable extinguishing agents: Water in the full ray
- . **Special hazards arising from the substance or mixture**  
Can form explosive gas-air mixtures.  
In case of fire, the following can be released:  
Carbondioxid (CO2)  
Carbon monoxide (CO)
- . **Advice for firefighters**  
Gefährdete Behälter mit wasser kühlen. Kontaminiertes Löschwasser entsprechend den behördlichen Vorschriften entsorgen.
- . Protective equipment: Wear self-contained respiratory protective device.  
Do not inhale explosion gases or combustion gases.

### 6 Accidental release measures

- . **Personal precautions, protective equipment and emergency procedures**  
Wear protective clothing.  
Ensure adequate ventilation  
Keep people at a distance and stay upwind.
- . **Environmental precautions:**  
Inform respective authorities in case of seepage into water course or sewage system.  
In case of seepage into the ground inform responsible authorities.
- . **Methods and material for containment and cleaning up:**  
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).  
Dispose of the collected material according to regulations.  
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.

### 7 Handling and storage

- . **Handling:**  
. Precautions for safe handling  
Keep receptacles tightly sealed.  
Ensure good ventilation/exhaustion at the workplace.  
Ensure that suitable extractors are available on processing machines  
Use only in well ventilated areas.  
Prevent formation of aerosols.
- . Information about protection against explosions and fires:  
Use only in explosion protected area.  
Fumes can combine with air to form an explosive mixture.  
Keep ignition sources away - Do not smoke.

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Protect against electrostatic charges.

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

- . Requirements to be met by storerooms and receptacles: Provide solvent resistant, sealed floor.  
Store in a cool location.
- . Information about storage in one common storage facility: Store away from foodstuffs.  
Store away from oxidizing agents.
- . Further information about storage conditions: Store in cool, dry conditions in well sealed receptacles.  
Store receptacle in a well ventilated area.
- . Specific end use(s) No further relevant information available.

**8 Exposure controls/ Personal protection**

- . Additional information about design of technical systems: No further data; see item 7.

**Control parameters**

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

**CAS: 64-17-5 ethanol**

EL STEL: 1000 ppm  
EV TWA: 1,900 mg/m<sup>3</sup>, 1,000 ppm

**CAS: 78-93-3 butanone**

EL STEL: 100 ppm  
TWA: 50 ppm  
EV STEL: 885 mg/m<sup>3</sup>, 300 ppm  
TWA: 590 mg/m<sup>3</sup>, 200 ppm

- . Additional information: The lists that were valid during the creation were used as basis.
- . **Exposure controls**
- . Personal protective equipment:
- . General protective and hygienic measures: Wash hands before breaks and at the end of work.
- . Breathing equipment: Not required.
- . Protection of hands: Solvent resistant gloves  
The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.  
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.  
Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation
- . Material of gloves Nitrile rubber, NBR  
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- . Penetration time of glove material Value for the permeation: Level ≤ 0,7 mm 480min (8h) EN374  
The determined penetration times according to EN 16523-1:2015 are not performed under practical conditions. Therefore a maximum wearing time, which corresponds to 50% of the penetration time, is recommended.  
The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- . Eye protection: Tightly sealed goggles

**9 Physical and chemical properties****Information on basic physical and chemical properties**

- . General Information
- . Appearance:
  - Form: Fluid
  - Color: Colorless
  - Odor: Like alcohol
  - Odor threshold: Not determined.
- . pH-value at 20 °C (68 °F): 6
- . Change in condition
  - Melting point/Melting range: -114.5 °C (-174.1 °F)
  - Boiling point/Boiling range: 78 °C (172.4 °F)
- . Flash point: 12 °C (53.6 °F)
- . Flammability (solid, gaseous): Not applicable.
- . Ignition temperature: 363 °C (685.4 °F)
- . Decomposition temperature: Not determined.

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. Auto igniting:	Product is not selfigniting.
. Danger of explosion:	Not determined.
. Explosion limits:	
Lower:	3.5 Vol %
Upper:	15 Vol %
. Vapor pressure at 20 °C (68 °F):	85.5 hPa (64.1 mm Hg)
. Density at 20 °C (68 °F):	0.7901 – 0.7902 g/cm <sup>3</sup> (6.5934 – 6.5942 lbs/gal)
. Relative density	Not determined.
. Vapor density	Not determined.
. Evaporation rate	Not determined.
. Solubility in / Miscibility with Water:	Not miscible or difficult to mix.
. Partition coefficient (n-octanol/water):	Not determined.
. Viscosity:	
Dynamic at 20 °C (68 °F):	1.2 mPas
Kinematic:	Not determined.
. Solvent content:	
Organic solvents:	100.0 %
VOC (EU) (%)	100.0 %
Solids content:	0.0 %
. <b>Other information</b>	No further relevant information available.

### 10 Stability and reactivity

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

### 11 Toxicological information

#### . Information on toxicological effects

##### . Acute toxicity:

##### . LD/LC50 values that are relevant for classification:

#### **CAS: 64-17-5 ethanol**

Oral	LD50	10,470 mg/kg (rat) (Acute Oral Toxicity)
Dermal	LD50	> 2,000 mg/kg (rabbit) (Acute Dermal Toxicity)
Inhalative	LC50/4h	51 mg/l (rat) (Acute Inhalation Toxicity)

#### **CAS: 78-93-3 butanone**

Oral	LD50	2,193 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rabbit) (Acute Dermal Toxicity)
Inhalative	LC50/4h	34 mg/l (mouse) (Acute Dermal Toxicity)

#### **CAS: 67-63-0 propan-2-ol**

Oral	LD50	5,840 mg/kg (rat) (Acute Oral Toxicity)
Dermal	LD50	12,870 mg/kg (rab) (Acute Dermal Toxicity)
Inhalative	LC50/4h	72.6 mg/l (rat)
	LC50/6h	> 25 mg/l (rat) (Acute Inhalation Toxicity)

##### . Primary irritant effect:

##### . on the skin:

#### **CAS: 64-17-5 ethanol**

Ätz-/Reizwirkung auf die Haut	(rabbit) (Acute Dermal Irritation/Corrosion) nicht reizend
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#### **CAS: 67-63-0 propan-2-ol**

Ätz-/Reizwirkung auf die Haut (4h)	(rabbit) (Acute Dermal Irritation/Corrosion) leicht reizend
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##### . on the eye:

#### **CAS: 64-17-5 ethanol**

Schwere Augenschädigung/-reizung	(rabbit) (Acute Eye Irritation/Corrosion) category II
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#### **CAS: 67-63-0 propan-2-ol**

Schwere Augenschädigung/-reizung	(rabbit) (Acute Eye Irritation/Corrosion) mäßig reizend
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. Sensitization: No sensitizing effects known.

. Additional toxicological information:

**CAS: 67-63-0 propan-2-ol**

NOAEL, maternal 400 mg/kg KG/day (rat)

NOAEL, parents 500 mg/kg KG/day (Two-Generation Reproduction Toxicity)

853 mg/kg KG/day (rat) (One-Generation Reproduction Toxicity Study)

. Carcinogenic categories

. IARC (International Agency for Research on Cancer)

CAS: 64-17-5 ethanol

1

CAS: 67-63-0 propan-2-ol

3

. NTP (National Toxicology Program)

None of the ingredients is listed.

. Reproductive toxicity

**CAS: 67-63-0 propan-2-ol**

Oral NOAEL, Parents 500 mg/kg (rat) (Two-Generation Reproduction Toxicity)

. Specific target organ toxicity - repeated exposure

**CAS: 67-63-0 propan-2-ol**

STOT RE mg/kg/day (rat)

at least 104 w 6h/d, 5d/w

**12 Ecological information**

. Toxicity

. Aquatic toxicity:

**CAS: 64-17-5 ethanol**

EC50 5,800 mg/l (Paramecium caudatum)

EC50 (24h) 858 mg/l (Artemia salina)

EC50 (7d) &gt; 5,000 mg/l (Algae) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

EC50 (48h) 9,268 – 14,221 mg/l (daphnia magna/gr. Wasserfloh) (Daphnia sp. Acute Immobilisation Test)

EC50 (72h) 275 mg/l (Chlorella vulgaris) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

LC50 (24h) 11,200 mg/l (Salmo gairdneri)

LC50 (48h) 5,012 mg/l (Ceriodaphnia dubia (Wasserfloh))

LC50 (96h) 13,000 mg/l (Oncorhynchus mykiss) (Fish, Acute Toxicity Test)

14,200 mg/l (Pimephales promelas (fettköpf. Ellritze))

NOEC (10d) 2 mg/l (Daphnie)

**CAS: 78-93-3 butanone**

EC50 (48h) 308 mg/l (daphnia magna/gr. Wasserfloh) (Daphnia sp. Acute Immobilisation Test)

EC50 (72h) 1,972 mg/l (Pseudokirchneriella subcapitata - Algen) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

EC50 (16h) 1,150 mg/l (Pseudomonas putida)

LC50 (96h) 2,993 mg/l (Pimephales promelas (fettköpf. Ellritze)) (Fish, Acute Toxicity Test)

**CAS: 67-63-0 propan-2-ol**

EC50 &gt; 100 mg/l (Bacteria)

EC50 (48h) &gt; 100 mg/l (daphnia magna/gr. Wasserfloh)

EC50 (72h) &gt; 100 mg/l (Scenedesmus subspicatus)

EC50 (96h) &gt; 1,000 mg/l (Scenedesmus subspicatus) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

LC50 (24h) 9,714 mg/l (daphnia magna/gr. Wasserfloh) (Daphnia sp. Acute Immobilisation Test)

9,640 mg/l (Pimephales promelas (fettköpf. Ellritze)) (Fish, Acute Toxicity Test)

LC50 (48h) &gt; 100 mg/l (Leuciscus idus (Goldorfe))

LC50 (96h) &gt; 9,640 – 10,000 mg/l (Pimephales promelas (fettköpf. Ellritze)) (Fish, Acute Toxicity Test)

LOEC (8d) 1,000 mg/l (Algae)

EC50 (3h) &gt; 1,000 mg/l (activated sludge) (Mikroorganismen/Wirkung auf Belebtschlamm)

NOEC (21d) 30 mg/l (daphnia magna/gr. Wasserfloh) (Daphnia magna Reproduction Test)

NOEC (96h) 1,000 mg/l (Scenedesmus subspicatus) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

. Persistence and degradability

**CAS: 64-17-5 ethanol**

Biodegradability 80 – 85 % (aerob) (Biodegradability)

Biodegradability 28d 97 % (Ready Biodegradability)

**CAS: 78-93-3 butanone**

Biodegradability 28d 98 % (Biodegradability)

**CAS: 67-63-0 propan-2-ol**

Biodegradability 30d 70 – 84 % (aerob) ((Derterm. of the "Ready" Biodegr. Closed Bottle))

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**. Behavior in environmental systems:****. Bioaccumulative potential****CAS: 64-17-5 ethanol**

Log Pow

Log Kow -0,31

BCF

0.66

keine Bioakkumulation (no biol. accumulation)

**CAS: 78-93-3 butanone**

Log Kow

0.3

no bioaccumulation (keine Bioakkumulation)

**CAS: 67-63-0 propan-2-ol**

Log Pow

0.05

**. Mobility in soil**

No further relevant information available.

**. Ecotoxicological effects:****CAS: 64-17-5 ethanol**

EC10 (72h) | 11.5 mg/l (Paramecium caudatum) (Freshwater Alga and Cyanobacteria, Growth Inhibiti)

**. Additional ecological information:****. General notes:**

Water hazard class 1 (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.

**. Results of PBT and vPvB assessment****. PBT:**

Not applicable.

**. vPvB:**

Not applicable.

**. Other adverse effects**

No further relevant information available.

**13 Disposal considerations****. Waste treatment methods****. Recommendation:**

Must be specially treated adhering to official regulations.

**. Uncleaned packagings:****. Recommendation:**

Non contaminated packagings can be treated like household garbage.

**14 Transport information****. UN-Number****. DOT/TDG, ADR, IMDG, IATA**

UN1993

**. UN proper shipping name****. DOT/TDG****. ADR**

Flammable liquids, n.o.s. (Ethanol solutions)

1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION))

**. IMDG**

FLAMMABLE LIQUID, N.O.S. (ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION))

**. IATA**

FLAMMABLE LIQUID, N.O.S. (ETHANOL SOLUTION)

**. Transport hazard class(es)****. DOT/TDG (Transport dangerous goods):****. Class**

3 Flammable liquids

**. Label**

3

**. ADR****. Class**

3 (F1) Flammable liquids

**. Label**

3

**. IMDG, IATA****. Class**

3 Flammable liquids

**. Label**

3

**. Packing group****. DOT/TDG, ADR, IMDG, IATA**

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<b>. Environmental hazards:</b>	
. Marine pollutant:	No
<b>. Special precautions for user</b>	
. Hazard identification number (Kemler code):	Warning: Flammable liquids 33
. EMS Number:	F-E, S-E
. Stowage Category	B
<b>. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code</b>	
	Not applicable.
<b>. Transport/Additional information:</b>	
-----	
. ADR	
. 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
. Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
<b>. UN "Model Regulation":</b>	
	UN 1993 FLAMMABLE LIQUID, N.O.S. (ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)), 3, II

### 15 Regulatory information

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

No further relevant information available.

. Sara

. Section 355 (extremely hazardous substances):

None of the ingredients is listed.

. Section 313 (Specific toxic chemical listings):

CAS: 67-63-0 | propan-2-ol

. TSCA (Toxic Substances Control Act):

All components have the value ACTIVE.

. MAK (German Maximum Workplace Concentration)

CAS: 64-17-5 | ethanol

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. Canadian substance listings:

. Canadian Domestic Substances List (DSL)

All ingredients are listed.

. Canadian Non-Domestic Substances List (NDSL)

None of the ingredients is listed.

. Canadian Ingredient Disclosure list (limit 0.1%)

CAS: 64-17-5 | ethanol

. Canadian Ingredient Disclosure list (limit 1%)

CAS: 78-93-3 | butanone

. GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

. Hazard pictograms



GHS02 GHS08

. Signal word

Danger

. Hazard-determining components of labeling:

ethanol

. Hazard statements

Highly flammable liquid and vapour.

May cause cancer.

. Precautionary statements

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Keep container tightly closed.

Ground and bond container and receiving equipment.

Use explosion-proof [electrical/ventilating/lighting] equipment.

Use non-sparking tools.

Take actions to prevent static discharges.

Wear protective gloves/protective clothing/eye protection/face protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

IF exposed or concerned: Get medical advice/attention.

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**. Chemical safety assessment:**

In case of fire: Use CO<sub>2</sub>, powder or water spray to extinguish.  
 Store in a well-ventilated place. Keep cool.  
 Store locked up.  
 Dispose of contents/container in accordance with local/regional/national/international regulations.  
 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:** Environment protection department.

**. Contact:**

**. Date of the latest revision of the safety data sheet**

**. Abbreviations and acronyms:**

03/01/2022 / 2201

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

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

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