

Safety Data Sheet
acc. to OSHA HCS

Printing date 10/07/2022

Reviewed on 10/07/2022

1 Identification

- **Product identifier**
- **Trade name:** Anti-Frost -60°C
- **Article number:** 94252015, 94252515
- **Application of the substance / the mixture** Glass Cleaner
- **Details of the supplier of the safety data sheet**
- Manufacturer/Supplier:**
Nextzett GmbH
An der Höhe 15
D-51674 Wiehl-Marienhagen
Deutschland
Tel: +49 2261 6095433
Fax: +49 2261 6095429
Email: info@nextzett.de / www.nextzett.de
- **Information department:** Chemtel
- **Emergency telephone number:** 1-800-255-3924 (USA AND CANADA)

2 Hazard(s) identification

- **Classification of the substance or mixture**

GHS02 Flame



Flammable Liquids, 3 H226. Flammable liquid and vapor..



GHS08 Health hazard

Carcinogenicity 1A H350 May cause cancer.
Specific Target Organ Toxicity - Repeated Exposure 2 H373 May cause damage to organs through prolonged or repeated exposure.

- **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:**
ethanol
ethanediol
- **Hazard statements**
Flammable liquid and vapor.
May cause cancer.
May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.

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Do not handle until all safety precautions have been read and understood. Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
Keep container tightly closed.
Ground/bond container and receiving equipment.
Use explosion-proof electrical/ventilating/lighting/equipment. Use only non-sparking tools.
Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapors/spray.
Wear protective gloves/protective clothing/eye protection/face protection.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
In case of fire: Use CO₂, 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.

Other hazards

Results of PBT and vPvB assessment

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

CAS: 64-17-5	ethanol	>50-≤100%
CAS: 107-21-1	ethanediol	>2.5-<10%
CAS: 56-81-5	glycerol	>2.5-≤10%

· **Regulation (EC) No. 648/2004 on detergents / labeling of ingredients**

perfumes

4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.
Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

After skin contact: Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water.

After swallowing: If symptoms persist consult doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

Indication of any immediate medical attention and special treatment needed

No further relevant information available.

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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.

· **Special hazards arising from the substance or mixture**

During heating or in case of fire poisonous gases are produced.

· **Advice for firefighters**

· **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

· **Personal precautions, protective equipment and emergency procedures**

Mount respiratory protective device.

Wear protective equipment. Keep unprotected persons away.

· **Environmental precautions:**

Dilute with plenty of water.

Do not allow to enter sewers/ surface or ground water.

· **Methods and material for containment and cleaning up:**

Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).

Dispose contaminated material as waste according to item 13.

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.

· **Protective Action Criteria for Chemicals**

· **PAC-1:**

CAS: 64-17-5	ethanol	1,800 ppm
CAS: 107-21-1	ethanediol	30 ppm
CAS: 56-81-5	glycerol	45 mg/m ³
CAS: 78-93-3	butanone	200 ppm
CAS: 577-11-7	docosate sodium	5.7 mg/m ³
CAS: 5989-27-5	(R)-p-mentha-1,8-diene	15 ppm
CAS: 101-84-8	diphenyl ether	2 ppm
CAS: 112-31-2	decanal	1.8 ppm
CAS: 99-87-6	p-cymene	120 mg/m ³

· **PAC-2:**

CAS: 64-17-5	ethanol	3300* ppm
CAS: 107-21-1	ethanediol	150 ppm
CAS: 56-81-5	glycerol	180 mg/m ³
CAS: 78-93-3	butanone	2700* ppm
CAS: 577-11-7	docosate sodium	63 mg/m ³
CAS: 5989-27-5	(R)-p-mentha-1,8-diene	67 ppm
CAS: 101-84-8	diphenyl ether	16 ppm
CAS: 112-31-2	decanal	19 ppm
CAS: 99-87-6	p-cymene	1,300 mg/m ³

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PAC-3:

CAS: 64-17-5	ethanol	15000* ppm
CAS: 107-21-1	ethanediol	900 ppm
CAS: 56-81-5	glycerol	1,100 mg/m ³
CAS: 78-93-3	butanone	4000* ppm
CAS: 577-11-7	docusate sodium	380 mg/m ³
CAS: 5989-27-5	(R)-p-mentha-1,8-diene	170 ppm
CAS: 101-84-8	diphenyl ether	96 ppm
CAS: 112-31-2	decanal	120 ppm
CAS: 99-87-6	p-cymene	1,900 mg/m ³

7 Handling and storage

Handling:

Precautions for safe handling

Ensure good ventilation/exhaustion at the workplace.

Open and handle receptacle with care.

Prevent formation of aerosols.

Information about protection against explosions and fires: Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

Keep respiratory protective device available.

Conditions for safe storage, including any incompatibilities

Storage:

Requirements to be met by storerooms and receptacles: No special requirements.

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

Further information about storage conditions: Keep receptacle tightly sealed.

Storage class: 3

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

PEL Long-term value: 1900 mg/m³, 1000 ppm

REL Long-term value: 1900 mg/m³, 1000 ppm

TLV Short-term value: 1000 ppm

A3

CAS: 107-21-1 ethanediol

WEEL I (2)

CAS: 56-81-5 glycerol

PEL Long-term value: 15* 5** mg/m³
mist; *total dust **respirable fraction

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TLV TLV withdrawn-insufficient data human occup. exp.

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

Keep away from foodstuffs, beverages and feed.

Immediately remove all soiled and contaminated clothing.

Wash hands before breaks and at the end of work.

Store protective clothing separately.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

Suitable chemical resistant protective gloves (EN374) also at prolonged, direct contact (recommended protection index 6, corresponding 480 minutes permeation time according to EN 374) e.g. from Nitril Rubber (0,33-0,5 mm) Polyvinyl Chloride (1mm).

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**

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**

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

· **Body protection:** Protective work clothing

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

General Information

· **Appearance:**

- **Form:** Fluid
- **Color:** Blue
- **Odor:** Like alcohol
- **Odor threshold:** Not determined.

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· pH-value at 20 °C (68 °F):	10
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	78 °C (172.4 °F)
· Flash point:	>23 °C (>73.4 °F)
· Flammability (solid, gaseous):	Flammable.
· Ignition temperature:	410 °C (770 °F)
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product is not explosive. However, formation of explosive air/vapor mixtures are possible.
· Explosion limits:	
Lower:	3.5 Vol %
Upper:	15 Vol %
· Vapor pressure at 20 °C (68 °F):	59 hPa (44.3 mm Hg)
· Density at 20 °C (68 °F):	0.925 g/cm ³ (7.71913 lbs/gal)
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with Water:	Fully miscible.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	68.0 %
VOC content:	62.99 %
	582.7 g/l / 4.86 lb/gal
VOC (EC)	62.99 %
· Solids content:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

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

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· **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

· **Information on toxicological effects**

· **Acute toxicity:**

· **LD/LC50 values that are relevant for classification:**

CAS: 64-17-5 ethanol

Oral	LD50	7,060 mg/kg (rat)
Inhalative	LC50/4 h	20,000 mg/l (rat)

CAS: 107-21-1 ethanediol

Oral	LD50	5,840 mg/kg (rat)
Dermal	LD50	9,530 mg/kg (rabbit)

CAS: 56-81-5 glycerol

Oral	LD50	12,600 mg/kg (rat)
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· **Primary irritant effect:**

· **on the skin:** No irritant effect.

· **on the eye:** No irritating effect.

· **Sensitization:** No sensitizing effects known.

· **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

CAS: 64-17-5	ethanol	1
CAS: 3844-45-9	Triphenylmethan-Farbstoff, Dihydrogen(ethyl)[4-[4-[ethyl(3-sulfonatobenzyl)]amino]-2'-sulfonatobenzhydryliden]cyclohexa-2,5-dien-1-yliden](3-sulfonatobenzyl)ammonium, Dinatriumsalz	3
CAS: 5989-27-5	(R)-p-mentha-1,8-diene	3
CAS: 97-53-0	Eugenol	3

· **NTP (National Toxicology Program)**

None of the ingredients is listed.

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

· **Aquatic toxicity:** No further relevant information available.

Persistence and degradability

The surfactants contained in the product correspond to the legislation on the environmental compatibility of detergents and are biodegradable.

· **Behavior in environmental systems:**

· **Bioaccumulative potential** No further relevant information available.

Mobility in soil No further relevant information available.

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- **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 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 cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

- **UN-Number**
- **DOT, IMDG, IATA** UN1170
- **UN proper shipping name**
- **DOT** Ethanol solutions
- **IMDG** ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION)
- **IATA** ETHANOL SOLUTION
- **Transport hazard class(es)**
- **DOT**
- 
- **Class** 3 Flammable liquids
- **Label** 3
- **IMDG, IATA**
- 
- **Class** 3 Flammable liquids
- **Label** 3
- **Packing group**
- **DOT, IMDG, IATA** III
- **Environmental hazards:** Not applicable.
- **Special precautions for user** Warning: Flammable liquids

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- **Hazard identification number (Kemler code):** 30
- **EMS Number:** F-E,S-D
- **Stowage Category** A
- **Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code** Not applicable.
- **Transport/Additional information:**
- **DOT**
- **Quantity limitations** On passenger aircraft/rail: 60 L
On cargo aircraft only: 220 L
- **IMDG**
- **Limited quantities (LQ)** 5L
- **Excepted quantities (EQ)** Code: E1
Maximum net quantity per inner packaging: 30 ml
Maximum net quantity per outer packaging: 1000 ml
- **UN "Model Regulation":** UN 1170 ETHANOL SOLUTION (ETHYL ALCOHOL SOLUTION), 3, III

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

CAS: 107-21-1 ethanediol

· **TSCA (Toxic Substances Control Act):**

CAS: 64-17-5	ethanol	ACTIVE
CAS: 7732-18-5	water, distilled, conductivity or of similar purity	ACTIVE
CAS: 107-21-1	ethanediol	ACTIVE
CAS: 56-81-5	glycerol	ACTIVE
CAS: 78-93-3	butanone	ACTIVE
CAS: 68891-38-3	Lineares (C12-14) Alcohol, ethoxyliert, sulfatiert, Natriumsalz	ACTIVE
CAS: 144538-83-0	IMINODIBERNSTEINSÄURE, NATRIUMSALZ	ACTIVE
CAS: 577-11-7	docusate sodium	ACTIVE
CAS: 3844-45-9	Triphenylmethan-Farbstoff, Dihydrogen(ethyl)[4-[4-[ethyl(3-sulfonatobenzyl)]amino]-2'-sulfonatobenzhydryliden]cyclohexa-2,5-dien-1-yliden](3-sulfonatobenzyl)ammonium, Dinatriumsalz	ACTIVE
CAS: 5989-27-5	(R)-p-mentha-1,8-diene	ACTIVE
CAS: 5392-40-5	Citral	ACTIVE
CAS: 78330-20-8	C10 Fettalkoholpolyglykolether 7 EO	ACTIVE
CAS: 51566-62-2	Citronellyl nitrile	ACTIVE
CAS: 80-56-8	alpha-Pinene	ACTIVE
CAS: 106-23-0	citronellal	ACTIVE

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CAS: 110-93-0	6-Methyl-5-hepten-2-one	ACTIVE
CAS: 68855-99-2	Litsea cubeba oil	ACTIVE
CAS: 7695-91-2	3,4-dihydro-2,5,7,8-tetramethyl-2-(4,8,12-trimethyltridecyl)-2H-benzopyran-6-yl acetate	ACTIVE
CAS: 101-84-8	diphenyl ether	ACTIVE
CAS: 112-31-2	decanal	ACTIVE
CAS: 106-24-1	geraniol	ACTIVE
CAS: 99-87-6	p-cymene	ACTIVE
CAS: 78-70-6	Linalool	ACTIVE
CAS: 98-55-5	alpha-Terpineol	ACTIVE
CAS: 106-22-9	dl-Citronellol	ACTIVE
CAS: 112-54-9	Lauric aldehyde	ACTIVE
CAS: 8002-09-3	Yarmor Pine oil, synthetic	ACTIVE
CAS: 68551-13-3	Alcohols, C12-15, ethoxylated propoxylated	ACTIVE
CAS: 150-84-5	Citronellyl acetate	ACTIVE
CAS: 8007-02-1	Lemongrass	ACTIVE

· Hazardous Air Pollutants

CAS: 107-21-1	ethanediol	
CAS: 101-84-8	diphenyl ether	

· Proposition 65

· Chemicals known to cause cancer:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

CAS: 64-17-5	ethanol	
CAS: 107-21-1	ethanediol	

· Carcinogenic categories

· EPA (Environmental Protection Agency)

CAS: 78-93-3	butanone	I
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· TLV (Threshold Limit Value)

CAS: 64-17-5	ethanol	A3
CAS: 107-21-1	ethanediol	A4
CAS: 80-56-8	alpha-Pinene	A4

· NIOSH-Ca (National Institute for Occupational Safety and Health)

None of the ingredients is listed.

· GHS label elements

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

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Hazard pictograms

GHS02 GHS08

Signal word Danger**Hazard-determining components of labeling:**

ethanol

ethanediol

Hazard statements

Flammable liquid and vapor.

May cause cancer.

May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Obtain special instructions before use.

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

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

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

Use only non-sparking tools.

Take precautionary measures against static discharge.

Do not breathe dust/fume/gas/mist/vapors/spray.

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

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. IF exposed or concerned: Get medical advice/attention.

Get medical advice/attention if you feel unwell.

In case of fire: Use CO₂, 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.

National regulations:**Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

Chemical safety assessment: 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.

Contact:**Date of preparation / last revision** 10/07/2022**Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

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

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CAS: Chemical Abstracts Service (division of the American Chemical Society)

VOC: Volatile Organic Compounds (USA, EU)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Flammable Liquids 3: Flammable liquids - Category 3

Carcinogenicity 1A: Carcinogenicity - Category 1A

Specific Target Organ Toxicity - Repeated Exposure 2: Specific target organ toxicity (repeated exposure) - Category 2 · *

Data compared to the previous version altered.