According to EC-Regulation 1907/2006 (REACH)

POLAR

SAFETY DATA SHEET

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

1.1. Product identifier

Trade name

Sprinklervæske -21 Product no.

REACH registration number Not applicable

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

Relevant identified uses of the substance or mixture

Windscreen washer fluid

Uses advised against

The full text of any mentioned and identified use categories are given in section 16

1.3. Details of the supplier of the safety data sheet

Company and address

Polar A/S Hylkevej 31 DK- 8660 Skanderborg Telefon: +45 7545 4870

Contact person

Kundeservice E-mail info@polarAS.dk SDS date

20-11-2015

SDS Version

2.0

1.4. Emergency telephone number

Use your national or local emergency number See section 4 "First aid measures"

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture Flam. Liq. 3; H226

See full text of H-phrases in section 2.2. **2.2. Label elements**

Hazard pictogram(s)



Hazard statement(s) Flammable liquid and vapour. (H226)



Safety statement(s)	General	If medical advice is needed, have product container or label at hand. (P101). Keep out ofreach ofchildren. (P102).
	Prevention	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. (P210).
	Response	In case of fire: Use alcohol-resistant foam/carbonic acid/powder/water mist/carbon dioxide/dry sand to extinguish. (P370+P378).
	Storage Disposal	Store in a well-ventilated place. Keep cool. (P403+P235). Dispose of contents/container to an approved waste disposal plant. (P501).

Identity of the substances primarily responsible for the major health hazards

2.3. Other hazards

This product contains an organic solvent. Repeated exposure to organic solvents can result in damage to the nervous system and inner organs, such as the liver and kidneys. Additional labelling

Additional warnings

voc

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SECTION 3: Composition/information on ingredients

▼3.1/3.2. Substances/Mixtures

NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:	ethanol ethyl alcohol CAS-no: 64-17-5 EC-no: 200-578-6 REACH-no: 01-2119457610-43-xxxx Index-no: 603-002-00-5 15-24% Flam. Liq. 2, Eye Irrit. 2 H225, H319
NOTE:	S
NAME: IDENTIFICATION NOS.: CONTENT: CLP CLASSIFICATION:	ethanediol ethylene glycol CAS-no: 107-21-1 EC-no: 203-473-3 Index-no: 603-027-00-1 < 3% Acute Tox. 4, STOT RE 2 H302, H373
NOTE:	S

(*) See full text of H-phrases in chapter 16. Occupational exposure limits are listed in section 8, if these are available. S = Organic solvent

Other informations

ATEmix(oral) > 2000 Eye Cat. 2 Sum = Sum(Ci/S(G)CLi) = 0,384 - 0,576

SECTION 4: First aid measures

4.1. Description of first aid measures

General information

In the case of accident: Contact a doctor or casualty department – take the label or this safety data sheet. Contact a doctor, if in doubt about the injured person's condition or if the symptoms continue. Never give an unconscious person water or similar.

Inhalation

Get the person into fresh air and stay with them.

Skin contact

Remove contaminated clothing and shoes at once. Skin that has come in contact with the material must be washed thoroughly with water and soap. Skin cleanser can be used. DO NOT use solvents or thinners.

Eye contact

Remove contact lenses. Flush eyes immediately with plenty of water or salt water (20-30°C) for at least 15 minutes and continue until irritation stops. Make sure you flush under the upper and lower eyelids. If irritation continues, contact a doctor. Continue flushing during transport.

Ingestion

Give the person plenty to drink and stay with the person. If the person feels unwell, contact a doctor immediately and take this safety data sheet or the label from the product with you. Do not induce vomiting



unless recommended by the doctor. Hold head facing down so that no vomit runs back into the mouth and throat.

Burns

Rinse with water until the pain stops and continue for 30 minutes.

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

Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.

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

No special

Information to medics

Bring this safety data sheet.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Recommended: alcohol-resistant foam, carbonic acid, powder, water mist. Water jets should not be used, since they can spread the fire.

5.2. Special hazards arising from the substance or mixture

If the product is exposed to high temperatures, as in the case of fire, dangerous catabolic substances are produced. These are: Carbon oxides. Fire will produce no or slight smoke. Exposure to catabolic products can damage your health. Fire fighters should use proper protection gear. Closed containers, which are exposed to fire, should be cooled with water. Do not let fire-extinguishing water run into sewers and other watercourses.

5.3. Advice for firefighters

Wear self-contained breathing apparatus and protective clothing to prevent contact.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Stores that have not ignited must be cooled by water mist. Where possible, remove flammable materials. Make sure there is sufficient ventilation.

6.2. Environmental precautions No specific requirements.

6.3. Methods and material for containment and cleaning up

Use sand, sawdust, earth, vermiculite, diatomaceous earth to contain and collect non-combustible absorbent materials and place in container for disposal, according to local regulations. Cleaning should be done as far as possible using normal cleaning agents. Solvents should be avoided.

6.4. Reference to other sections

See section on "Disposal considerations" with regard to the handling of waste. See section on 'Exposure controls/personal protection' for protective measures.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

See section on 'Exposure controls/personal protection' for information on personal protection.

7.2. Conditions for safe storage, including any incompatibilities

Always store in containers of the same material as the original. Must be stored in a cool and ventilated area, away from possible sources of combustion.

Storage temperature

No data available.

7.3. Specific end use(s)

This product should only be used for applications described in Section 1.2



SECTION 8: Exposure controls/personal protection

8.1. Control parameters

OEL

No substances listed.

VDNEL / PNEC

DNEL (ethanol ethyl alcohol): 1900 mg/m3 Exposure: Inhalation Duration of Exposure: Short term – Local effects - Workers Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 950 mg/m3 Exposure: Inhalation Duration of Exposure: Long term – Systemic effects - Workers Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 343mg/kg bw/day Exposure: Dermal Duration of Exposure: Long term – Systemic effects - Workers Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 950 mg/m3 Exposure: Inhalation Duration of Exposure: Short term – Local effects - General population Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 114 mg/m3 Exposure: Inhalation Duration of Exposure: Long term – Systemic effects - General population Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 87 mg/kg bw/day Exposure: Oral Duration of Exposure: Long term – Systemic effects - General population Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 206 mg/kg bw/day Exposure: Dermal Duration of Exposure: Long term – Systemic effects - General population Remarks: Supplier SDS

DNEL (ethanol ethyl alcohol): 950 mg/kg Exposure: Dermal Duration of Exposure: Short term – Local effects - General population Remarks: Supplier SDS

DNEL (ethanediol ethylene glycol): 35 mg/m3 Exposure: Inhalation Duration of Exposure: Short term – Systemic effects - Workers Remarks: the supplier has not specified the duration

DNEL (ethanediol ethylene glycol): 106 mg/kg Exposure: Dermal Duration of Exposure: Short term – Systemic effects - Workers Remarks: the supplier has not specified the duration

DNEL (ethanediol ethylene glycol): 7 mg/m3 Exposure: Inhalation Duration of Exposure: Short term – Systemic effects - General population Remarks: the supplier has not specified the duration

DNEL (ethanediol ethylene glycol): 53 mg/kg Exposure: Dermal Duration of Exposure: Short term – Systemic effects - General population Remarks: the supplier has not specified the duration

PNEC (ethanol ethyl alcohol): 0,96 mg/l Exposure: Freshwater

PNEC (ethanol ethyl alcohol): 0,79 mg/l Exposure: Marine water

PNEC (ethanol ethyl alcohol): 2,75 mg/l Exposure: Intermittent release



PNEC (ethanol ethyl alcohol): 0,63 mg/kg dry weight Exposure: Soil

PNEC (ethanol ethyl alcohol): 580 mg/L Exposure: Sewage Treatment Plant

PNEC (ethanol ethyl alcohol): 3,6 mg/kg dry weight Exposure: Freshwater sediment

PNEC (ethanediol ethylene glycol): 10 mg/l Exposure: Freshwater

PNEC (ethanediol ethylene glycol): 1 mg/l Exposure: Marine water

PNEC (ethanediol ethylene glycol): 10 mg/l Exposure: Intermittent release

PNEC (ethanediol ethylene glycol): 199,5 mg/l Exposure: Activated Sludge Plant

PNEC (ethanediol ethylene glycol): 20,9 Exposure: Freshwater sediment

PNEC (ethanediol ethylene glycol): 1,53 mg/kg Exposure: Soil

8.2. Exposure controls

No control is necessary if the product is used in a normal way.

General recommendations

Observe general occupational hygiene.

Exposure scenarios

If there is an appendix to this safety data sheet, the indicated exposure scenarios must be complied.

Exposure limits

There are no maximum exposure limits for the substances contained in this product.

Appropriate technical measures

Take ordinary precautions when using the product. Avoid inhalation of gas or dust.

Hygiene measures

Whenever you take a break in using this product and when you have finished using it, all exposed areas of the body must be washed. Always wash hands, forearms and face.

Measures to avoid environmental exposure

No specific requirements.

Individual protection measures, such as personal protective equipment



Generally

Use only CE marked protective equipment.

Respiratory Equipment

If the ventilation at the work place is not sufficient, use a half or whole mask with an appropriate filter or an air-supplied respiratory protector. The choice depends on the concrete work situation and how long you will be using the product.

Skin protection

No specific requirements.

Hand protection

Use protective gloves. The concrete work situation is not known. Contact the suppliers of the gloves for help on the glove type. Please note that elastic gloves stretch when used. The thickness of the gloves, and therefore their penetration time, will be reduced. Moreover, the temperature of the glove in use is about 35°C, while the standard test, EN 374-3, is done at 23°C. The penetration time is therefore reduced by a factor of 3.

VEye protection

Use safety glasses with a side shield.



SECTION 9: Physical and chemical properties

Form	Colour	Odour	рΗ	Viscosity	Density (g/cm3)
Liquid	Blue	Alcohol odor	6-8	-	-
Phase changes	i				
Melting point (°C)		Boiling point (°C)	Vapour pressure (mm Hg) -		
Data on fire and	d explosion haz	ards			
Flashpoint (°C)		Ignition (°C)		Self ignition (°C)
> 30		-	-	,	
Explosion limits (Vol %)		Oxidizing properties			
- '		-			
Solubility					
Solubility in water		n-octanol/water coefficient			
Soluble		-			
9.2. Other information	tion				
Solubility in fat		Additional information			
-		N/A			

SECTION 10: Stability and reactivity

10.1. Reactivity

- No data available
- 10.2. Chemical stability

The product is stable under the conditions, noted in the section on "Handling and storage".

- 10.3. Possibility of hazardous reactions
- No special
- 10.4. Conditions to avoid

Avoid static electricity. Do not expose to heat (e.g. sunlight), because it can lead to excess pressure.

- 10.5. Incompatible materials
 - Strong acids, strong bases, strong oxidizing agents, and strong reductants agents.
- 10.6. Hazardous decomposition products
 - The product is not degraded when used as specified in section 1.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity

Substance	Species	Test	Route of exposure	<mark>Result</mark>
ethanediol ethylene glycol	Mouse	LD50	Dermal	> 3500 mg/kg bw
ethanol ethyl alcohol	Rat	LD50	Oral	10470 mg/kg
ethanol ethyl alcohol	Rabbit	LD50	Dermal	>2000 mg/kg
ethanol ethyl alcohol	Rat	LC50	Inhalation	117-125 mg/l/4h.

Skin corrosion/irritation

Data on substance: ethanol ethyl alcohol Test: OECD Guideline 404 Organism: Rabbit Result: not irritant

Serious eye damage/irritation

Data on substance: ethanol ethyl alcohol Test: OECD 405 Organism: Rabbit Result: Mild irritant

Respiratory or skin sensitisation

Data on substance: ethanol ethyl alcohol Test: OECD 429 (local Lymph Node Assay) Organism: Mouse Result: Not sensitizising



Germ cell mutagenicity Data on substance: ethanol ethyl alcohol Test: OECD Guideline 471 Organism: Mouse **Result:** negative Data on substance: ethanol ethyl alcohol Test: OECD Guideline 476 Organism: Mouse Result: negative Data on substance: ethanol ethyl alcohol Test: OECD Guideline 475 **Result:** negative Data on substance: ethanol ethyl alcohol Test: OECD Guideline 473 Result: negative Carcinogenicity Data on substance: ethanol ethyl alcohol Test: OECD Guideline 451 Organism: Rat Result: NOAEL > 3000 mg/kg (24 mon) **Reproductive toxicity** No data available. **STOT-single exposure** No data available. **STOT-repeated exposure** Data on substance: ethanol ethyl alcohol Test: OECD 403 Organism: Rabbit Result: NOAL > 20 mg/l Data on substance: ethanol ethyl alcohol

Test: OECD 408 Organism: Rat Result: NOAEL = 1730 mg/kg/d (90 d) Aspiration hazard No data available.

Long term effects

Neurotoxic effect: This product contains organic solvents, which can have an effect on the nervous system. Symptoms of neurotoxicity can be: loss of appetite, headache, dizziness, whistling in the ears, tingling sensations in the skin, sensitivity to the cold, cramps, difficulty in concentrating, tiredness, etc. Repeated exposure to solvents can result in the breaking down of the skin's natural fat layer. The skin will then be more prone to absorb dangerous substances, e.g. allergens.

SECTION 12: Ecological information

Substance	Species	Test	Test duration	Result
ethanediol ethylene glycol	Fish	LC50	96 h.	72860 mg/l
ethanediol ethylene glycol	Daphnia	EC50	48 h.	> 100 mg/l
ethanediol ethylene glycol	Algae	EC50	96 h.	6500-13000 m
ethanol ethyl alcohol	Fish	LC50	96 h.	13000 mg/l
ethanol ethyl alcohol	Daphnia	LC50	48 h.	12340 mg/l
ethanol ethyl alcohol	Algae	EC50	48 h.	12900 mg/l
ethanol ethyl alcohol	Algae	EC50	72 h.	275 mg/l



Substance	Biodegradability	Test	Result
ethanediol ethylene glycol	Yes	DOC Die-Away Test	90-100% (10d
ethanol ethyl alcohol	Yes	CO2 Evolution Test	97%
	iai		
12.3. Bioaccumulative potent Substance	Potential bioaccumulation	LogPow	BFC

12.4. Mobility in soil

ethanediol ethylene glycol : Log Koc= -0,998584, Calculated from LogPow (). ethanol ethyl alcohol : Log Koc= -0,175008, Calculated from LogPow ().

12.5. Results of PBT and vPvB assessment

No data available

12.6. Other adverse effects

No special

SECTION 13: Disposal considerations

13.1. Waste treatment methods

The product is covered by the regulations on dangerous waste.

Waste

EWC code

Specific labelling

Contaminated packing

Packaging which contains leftovers from the product must be disposed of in the same way as the product.

SECTION 14: Transport information

The product is not covered by the conventions on dangerous goods, as the product falls under the special provision 144 for UN 1170 (ADR 2013 and IMDG 2012 vol. 2)

14.1 – 14.4 ADR/RID

ADR/RID	
14.1. UN number	-
14.2. UN proper shipping name	-
14.3. Transport hazard class(es)	-
14.4. Packing group	-
Notes	-
Tunnel restriction code	-
IMDG	
UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-
EmS	-
MP**	-
Hazardous constituent	-
IATA/ICAO	
UN-no.	-
Proper Shipping Name	-
Class	-
PG*	-



14.5. Environmental hazards

14.6. Special precautions for user

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code No data available.

(*) Packing group (**) Marine pollutant

SECTION 15: Regulatory information

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

Restrictions for application

People under the age of 18 must not be exposed to this product cf. Council Directive 94/33/EC. **Demands for specific education**

Additional information

Sources

Council Directive 94/33/EC of 22 June 1994 on the protection of young people at work. EC Regulation 1272/2008 (CLP). EC regulation 1907/2006 (REACH).

15.2. Chemical safety assessment

No

SECTION 16: Other information

VFull text of H-phrases as mentioned in section 3

H225 - Highly flammable liquid and vapour.

H302 - Harmful if swallowed.

H319 - Causes serious eye irritation.

H373 - May cause damage to organs through prolonged or repeated exposure.

The full text of identified uses as mentioned in section 1

Other symbols mentioned in section 2

Other

It is recommended to hand over this safety data sheet to the actual user of the product. Information in this safety data sheet cannot be used as a product specification.

The information in this safety data sheet applies only to this specific product (mentioned in section 1) and is not necessarily correct for use with other chemicals/products.

A change (in proportion to the last essential change (first cipher in SDS version)) is marked with a blue triangle.

The safety data sheet is validated by pipe/CHYMEIA Date of last essential change (First cipher in SDS version) 28-10-2015 Date of last minor change (Last cipher in SDS version) 20-11-2015

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