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

- · 1.1 Product identifier
- · Trade name: MINIFOG AS
- · Article number: 90110001
- · UFI: GHH9-RPOY-PC8U-36G1
- 1.2 Relevant identified uses of the substance or mixture and uses advised against
- Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- · Product category PC3 Air care products
- · Application of the substance / the mixture

Odour neutralising agent

Antiperspirant

· 1.3 Details of the supplier of the safety data sheet

· Manufacturer/Supplier:

ZEP ÜK Ltd

Tanhouse Lane Widnes Cheshire, WA8 0RD

United Kingdom

Tel: +44 (0)151 422 1000 Fax: +44 (0)151 422 1011 @: info@zep.co.uk

(a): info(a)zep.co.uk web: www.zep.co.uk

ZEP Industries BV

Vierlinghweg 30

4612 PN Bergen op Zoom

The Netherlands

Tel: (NL) + 31 164 250 100 (B) + 32 2 347 0117 Fax:(NL) + 31 164 266 710 (B) + 32 2 347 1395

@: sales@zepbenelux.com

ZEP ITALIA SRL

Via Netunese Km. 25.000

04011 Aprilia (LT) - Italy

Tel: +39.06.926691 Fax: +39.06.92747061

@: tecnico@zepeurope.com

Sito: www.zep.it

· Further information obtainable from:

Customer Service

NL: Tel: +31 164 250 100 Fax: +31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

· 1.4 Emergency telephone number:

Customer Service

NL: Tel: +31 164 250 100 Fax: +31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

EU: Tel. 112

SECTION 2: Hazards identification

- · 2.1 Classification of the substance or mixture
- · Classification according to Regulation (EC) No 1272/2008

Aerosol 1 H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

Eye Irrit. 2 H319 Causes serious eye irritation.

- · 2.2 Label elements
- · Labelling according to Regulation (EC) No 1272/2008 The product is classified and labelled according to the CLP regulation.

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Safety data sheet according to 1907/2006/EC, Article 31

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· Hazard pictograms



· Signal word Danger

· **Signai wora** Dangei · **Hazard statements**

H222-H229 Extremely flammable aerosol. Pressurised container: May burst if heated.

H319 Causes serious eye irritation.

· Precautionary statements

P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

P211 Do not spray on an open flame or other ignition source.

P251 Do not pierce or burn, even after use. P280 Wear 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.

P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.

2.3 Other hazards The product does not contain any organic halogen compounds (AOX), nitrates, heavy metal compounds.

- · Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.

SECTION 3: Composition/information on ingredients

- · 3.2 Mixtures
- · Description: Mixture of substances listed below with nonhazardous additions.

CAS: 64-17-5	ethanol	60-80%
EINECS: 200-578-6 Reg.nr.: 01-2119457610-43-xxxx	♠ Flam. Liq. 2, H225	
CAS: 106-97-8	butane (< 0.1% butadine)	10-25%
EINECS: 203-448-7 Reg.nr.: 01-2119474691-32-xxxx	🍪 Flam. Gas 1, H220 Press. Gas (Comp.), H280	
CAS: 74-98-6	propane	10-25%
	♠ Flam. Gas 1, H220 Press. Gas (Comp.), H280	
CAS: 67-63-0	propan-2-ol	5-10%
	Flam. Liq. 2, H225 Eye Irrit. 2, H319; STOT SE 3, H336	
CAS: 75-28-5	isobutane (<0.1% butadine)	2.5-5%
EINECS: 200-857-2 Reg.nr.: 01-2119485395-27-xxxx	◈ Flam. Gas 1, H220 Press. Gas (Comp.), H280	

· Ingredients according to Detergents Regulation 648/2004/EC For the wording of the listed hazard phrases refer to section 16.

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · General information: Immediately remove any clothing soiled by the product.
- · After inhalation: Supply fresh air; consult doctor in case of complaints.
- After skin contact: If skin irritation continues, consult a doctor.
- After swallowing: Seek immediate medical advice.
- 4.2 Most important symptoms and effects, both acute and delayed No further relevant information available.
- 4.3 Indication of any immediate medical attention and special treatment needed No further relevant information available.

SECTION 5: Firefighting measures

- · 5.1 Extinguishing media
- · Suitable extinguishing agents: CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.

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- 5.2 Special hazards arising from the substance or mixture No further relevant information available.
- · 5.3 Advice for firefighters
- · Protective equipment: No special measures required.
- · Additional information Cool endangered receptacles with water spray.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Wear protective equipment. Keep unprotected persons away.

- 6.2 Environmental precautions: Do not allow to enter sewers/ surface or ground water.
- · 6.3 Methods and material for containment and cleaning up: Ensure adequate ventilation.
- · 6.4 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.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling Keep away from heat and direct sunlight.
- · Information about fire and explosion protection:

Do not spray onto a naked flame or any incandescent material.

Keep ignition sources away - Do not smoke.

Pressurised container: protect from sunlight and do not expose to temperatures exceeding 50°C, i.e. electric lights. Do not pierce or burn, even after use.

- · 7.2 Conditions for safe storage, including any incompatibilities
- Storage
- Requirements to be met by storerooms and receptacles:

Observe official regulations on storing packagings with pressurised containers.

- · Information about storage in one common storage facility: Not required.
- · Further information about storage conditions:

Keep receptacle tightly sealed.

Protect from heat and direct sunlight.

· 7.3 Specific end use(s) No further relevant information available.

SECTION 8: Exposure controls/personal protection

· Additional information about design of technical facilities: No further data; see item 7.

· 8.1 Control parameters · Ingredients with limit values that require monitoring at the workplace:			
64-17-5 ethanol (50-	75%)		
WEL (Great Britain)	Long-term value: 1920 mg/m³, 1000 ppm		
106-97-8 butane (< 0.1% butadine) (10-25%)			
WEL (Great Britain)	Short-term value: 1810 mg/m³, 750 ppm Long-term value: 1450 mg/m³, 600 ppm Carc (if more than 0.1% of buta-1.3-diene)		
67-63-0 propan-2-ol	(5-10%)		
WEL (Great Britain)	Short-term value: 1250 mg/m³, 500 ppm Long-term value: 999 mg/m³, 400 ppm		
· DNELs			
64-17-5 ethanol			

· DNELs		
64-17-5 ethanol		
Oral	DNEL Long term-systemic	87 mg/kg human/day (consumer)
Dermal	DNEL Long term-systemic	206 mg/kg human/day (consumer)
		343 mg/kg human/day (worker)
Inhalative	DNEL Long term-systemic mg/m3	114 mg/m3 (consumer)
		950 mg/m3 (worker)
	DNEL Long term local mg/m3	950 mg/m3 (consumer)

1,900 mg/m3 (worker)

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			(Contd. of page 3
67-63-0 pr	ropan-2-ol		
Oral	DNEL Long term-systemic	;	26 mg/kg human/day (consumer)
Dermal	DNEL Long term-systemic	?	319 mg/kg human/day (consumer)
			888 mg/kg human/day (worker)
Inhalative	DNEL Long term-systemic	mg/m3	89 mg/m3 (consumer)
			500 mg/m3 (worker)
PNECs			
64-17-5 et	hanol		
PNEC Fre	shwater mg/L	0.96 mg	:/L (-)
		0.79 mg	z/L (-)
PNEC Freshwater sediment 3.6 m		3.6 mg/l	Kg (-)
PNEC Marine water sediment 2.9 mg		2.9 mg/l	Kg (-)
		2.75 (-)	
		0.63 mg	t/Kg (-)
PNEC Sewage treatment Plant mg/L 580 mg/L		580 mg/	/L (-)
67-63-0 pr	ropan-2-ol		
PNEC Freshwater mg/L 140.9 mg		140.9 m	g/L
PNEC Marinewater mg/L 140.9 mg		140.9 m	g/L
PNEC Freshwater sediment 552 mg/l		552 mg/	/Kg
PNEC Marine water sediment 552 mg/l		552 mg/	/Kg
PNEC Intermittent release 140.9		140.9	
PNEC Soil 28 mg/K		28 mg/K	$\langle q \rangle$

- · Additional information: The lists valid during the making were used as basis.
- · 8.2 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.

Avoid contact with the eyes.

· Protection of hands:



Protective gloves

· 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. 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.

- · Not suitable are gloves made of the following materials: Strong material gloves
- · Eye protection:



Tightly sealed goggles

SECTION 9: Physical and chemical properties

- · 9.1 Information on basic physical and chemical properties
- · General Information
- · Appearance:

Form: Aerosol

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	(Contd. of page
Colour:	Colourless
· Odour:	Pleasant
Odour threshold:	Not determined.
Change in condition	
Melting point/freezing point:	Undetermined.
Initial boiling point and boiling range	: Not applicable, as aerosol.
· Flash point:	<0 °C
Flammability (solid, gas):	Not applicable.
Decomposition temperature:	Not determined.
Auto-ignition temperature:	Product is not selfigniting.
Explosive properties:	Product is not explosive. However, formation of explosive air/vapour mixtures are possible.
Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
Vapour pressure:	Not determined.
Density at 20 °C:	0.674 g/cm^3
Relative density	Not determined.
· Vapour density	Not determined.
Evaporation rate	Not applicable.
Solubility in / Miscibility with	
water:	Insoluble.
Partition coefficient: n-octanol/water:	Not determined.
Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
Solvent content:	
Organic solvents:	99.9 %
Swiss VOC:	99.88 %
9.2 Other information	No further relevant information available.

SECTION 10: Stability and reactivity

- · 10.1 Reactivity No further relevant information available.
- 10.2 Chemical stability
- Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
- · 10.3 Possibility of hazardous reactions No dangerous reactions known.
- · 10.4 Conditions to avoid No further relevant information available.
- · 10.5 Incompatible materials: No further relevant information available.
- · 10.6 Hazardous decomposition products: No dangerous decomposition products known.

SECTION 11: Toxicological information

- · 11.1 Information on toxicological effects
- · Acute toxicity Based on available data, the classification criteria are not met.

		nt for classification:
64-17-5 et	hanol	
Oral	LD50	7,060 mg/kg (Rat)
Inhalative	LC50 / 4 h	20,000 mg/l (Rat)
	EC 50 / 48 h	10,800 mg/ltr (Daphnia magna (water flea))
67-63-0 pi	opan-2-ol	
Oral	LD50	>5,000 mg/kg (Rat)
Dermal	LD50	6,290 mg/kg (rab)
Inhalative	LC50 / 4 h	46-73 mg/l (Rat)

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		(Contd. of page 5)
LC50/8 h	12,000-19,000 mg/m3 (Rat)	
LC50 / 96 h	9,640 mg/ltr (fish)	
	>1,400 mg/ltr (Lepomus gobbosus (Zonnebaars))	
	6,550 mg/ltr (Pimephales promelas)	
EC50 / 24 h	>1,000 mg/ltr (Daphnia magna (water flea))	
EC 50 / 48 h	2,285-13,299 mg/ltr (Daphnia magna (water flea))	

- Primary irritant effect:
- · Skin corrosion/irritation Based on available data, the classification criteria are not met.
- · Serious eye damage/irritation

Causes serious eye irritation.

- Respiratory or skin sensitisation Based on available data, the classification criteria are not met.
- CMR effects (carcinogenity, mutagenicity and toxicity 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.
- · 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.

SECTION 12: Ecological information

- · 12.1 Toxicity
- Aquatic toxicity: No further relevant information available.
- 12.2 Persistence and degradability No further relevant information available.
- · 12.3 Bioaccumulative potential No further relevant information available.
- · 12.4 Mobility in soil No further relevant information available.
- Additional ecological information:
- · General notes: Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- · 12.6 Other adverse effects No further relevant information available.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- · Recommendation Disposal must be made according to official regulations
- · Uncleaned packaging:
- · Recommendation: Disposal in accordance with administrative provisions

SECTION 14: Transport information

- · 14.1 UN-Number
- · ADR, IMDG, IATA UN1950

· 14.2 UN proper shipping name

· ADR 1950 AEROSOLS
· IMDG AEROSOLS

· IATA AEROSOLS, flammable

- · 14.3 Transport hazard class(es)
- $\cdot ADR$



· Class 2 5F Gases.

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Trade name: MINIFOG AS

	(Contd. of pag
Label	2.1
IMDG, IATA	
Class	2.1
Label	2.1
14.4 Packing group ADR, IMDG, IATA	Void
14.5 Environmental hazards:	Not applicable.
14.6 Special precautions for user	Warning: Gases.
Hazard identification number (Kemler code):	-
EMS Number:	F-D,S-U
Stowage Code	SW1 Protected from sources of heat. SW2 Clear of living quarters.
Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre:
Segregation Code	Segregation as for class 9. Stow "separated from" class 1 excep
	for division 1.4.
	For AEROSOLS with a capacity above 1 litre:
	Segregation as for the appropriate subdivision of class 2.
	For WASTE AEROSOLS:
	Segregation as for the appropriate subdivision of class 2.
14.7 Transport in bulk according to Annex II of Ma	
the IBC Code	Not applicable.
Transport/Additional information:	
ADR	
Limited quantities (LQ)	
Excepted quantities (EQ)	Code: E0
Tuguenout estacom	Not permitted as Excepted Quantity 2
Transport category Tunnel restriction code	D D
	D
IMDG Limited quantities (LQ)	IL
	Code: E0
Excepted quantities (EO)	Couc. Do
Excepted quantities (EQ)	Not permitted as Excepted Quantity

SECTION 15: Regulatory information

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

Reg. (EC) n. 1272/2008 - CLP;

Reg. (EC) n. 1907/2006 - Reach;

Reg. (EC) n. 2015/830 annex II of REACH;

Reg. (EC) n. 648/04 (Detergents);

Reg. (EC) n. 528/12 (Biocides BPR);

Reg. (EC) n. 1223/2009 (Cosmetics);

Dir. 06/08 ADR – RID - IMDG - IATA;

Dir. 47/08 (Aerosols); Dir. 12/18 (Seveso III);

Dir. 2008/98/CE and Reg. (EC) n.1357/2014 (Waste management)

- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- · Seveso category P3a FLAMMABLE AEROSOLS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 150 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 500 t
- · REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3

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- · National regulations:
- · Technical instructions (air):

Class	Share in %
NK	75-100

- · Waterhazard class: Water hazard class 1 (Self-assessment): slightly hazardous for water.
- · 15.2 Chemical safety assessment: A Chemical Safety Assessment has been carried out.

SECTION 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.

· Relevant phrases

H220 Extremely flammable gas.

H225 Highly flammable liquid and vapour.

H280 Contains gas under pressure; may explode if heated.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

Department issuing SDS:

Customer Service

NL: Tel: + 31 164 250 100 Fax: + 31 164 266 710 B: Tel: +32 2 347 0117 Fax: +32 2 347 1395 IT: Tel: +39 069 266 91Fax: +39 06.927 470 61 UK: Tel: +44 151 422 1000 Fax: +44 151 422 1011

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Abbreviations and acronyms:

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

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

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) DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic vPvB: very Persistent and very Bioaccumulative

Flam. Gas 1: Flammable gases - Category 1

Aerosol 1: Aerosols – Category 1

Press. Gas (Comp.): Gases under pressure - Compressed gas

Flam. Liq. 2: Flammable liquids - Category 2

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

STOT SE 3: Specific target organ toxicity (single exposure) – Category 3

* Data compared to the previous version altered.

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Annex: Exposure scenario

· Short title of the exposure scenario

For the finished product.

MINIFOG AS

- · Sector of Use SU22 Professional uses: Public domain (administration, education, entertainment, services, craftsmen)
- · Product category PC3 Air care products
- Description of the activities / processes covered in the Exposure Scenario See section 1 of the annex to the Safety Data Sheet.
- · Conditions of use
- Duration and frequency 5 workdays/week.
- · Physical parameters
- · Physical state Aerosol
- · Concentration of the substance in the mixture The substance is main component.
- Used amount per time or activity According to directions for use.
- · Other operational conditions
- · Other operational conditions affecting environmental exposure No special measures required.
- · Other operational conditions affecting worker exposure

Avoid contact with eyes.

Take precautionary measures against static discharge.

Keep away from sources of ignition - No smoking.

- · Other operational conditions affecting consumer exposure No special measures required.
- Other operational conditions affecting consumer exposure during the use of the product Not applicable.
- · Risk management measures
- · Worker protection
- Organisational protective measures No special measures required.
- · Technical protective measures Provide explosion-proof electrical equipment.
- · Personal protective measures

Avoid contact with the eyes.

Tightly sealed goggles

- · Measures for consumer protection Ensure adequate labelling.
- · Environmental protection measures
- · Water No special measures required.
- · Disposal measures Disposal in accordance with administrative provisions
- Disposal procedures Must not be disposed together with household garbage. Do not allow product to reach sewage system.
- · Waste type Partially emptied and uncleaned packaging
- · Exposure estimation
- · Consumer Not relevant for this Exposure Scenario.

GB