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

- · 1.1 Product identifier
- · Trade name: WABCOTHYL™
- · Article number: 830 702 087 4, 830 702 088 4, 830 702 089 4
- · 1.2 Relevant identified uses of the substance or mixture and uses advised against
- · Product category PC4 Anti-Freeze and de-icing products
- · Application of the substance / the mixture Antifreeze agent.
- · 1.3 Details of the supplier of the safety data sheet
- · Manufacturer/Supplier:

ZF CV Distribution Germany GmbH & Co. KG

Am Lindener Hafen 21

30453 Hannover

Germany

Tel.: +800 438 92226

sds@umweltkanzlei.de

· Informing department:

Information available by telephone number for respective country given above.

· 1.4 Emergency telephone number:

Emergency control center for poisoning cases Berlin +49 (0) 30 30 686 790 (German and English)

SECTION 2: Hazards identification

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



flame

Flam. Liq. 2 H225 Highly flammable liquid and vapour.



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.

Hazard pictograms





GHS02 GHS07

- · Signal word Danger
- · Hazard statements

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

· Precautionary statements

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

smoking.

P280 Wear protective gloves/protective clothing/eye protection/face protection.

P337+P313 If eye irritation persists: Get medical advice/attention.

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P370+P378 In case of fire: Use for extinction: CO2, powder or water spray.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

- · 2.3 Other hazards
- · 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.

· Dangerous components:				
CAS: 64-17-5	ethanol	≥50-100%		
EINECS: 200-578-6 Reg.nr.: 01-2119457610-43	♦ Flam. Liq. 2, H225; ♦ Eye Irrit. 2, H319 Specific concentration limit: Eye Irrit. 2; H319: C ≥ 50 %			
CAS: 107-21-1	ethanediol	≥5-<10%		
EINECS: 203-473-3 Reg.nr.: 01-2119456816-28	♦ STOT RE 2, H373; ♦ Acute Tox. 4, H302			

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

SECTION 4: First aid measures

- · 4.1 Description of first aid measures
- · After inhalation Supply fresh air; consult doctor in case of symptoms.
- · After skin contact If skin irritation continues, consult a doctor.
- · After eye contact

Rinse opened eye for several minutes under running water.

In case of persistent symptoms consult doctor.

- · After swallowing In case of persistent symptoms consult doctor.
- · 4.2 Most important symptoms and effects, both acute and delayed

Daze.

Headache

Dizziness

Breathing difficulty

Unconsciousness

Nausea

• **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

Alcohol resistant foam

CO2, sand, extinguishing powder. Do not use water.

- For safety reasons unsuitable extinguishing agents Water with a full water jet.
- · 5.2 Special hazards arising from the substance or mixture

Can be released in case of fire

Carbon monoxide (CO)

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· 5.3 Advice for firefighters

Protective equipment:

Wear self-contained breathing apparatus.

Wear full protective suit.

SECTION 6: Accidental release measures

· 6.1 Personal precautions, protective equipment and emergency procedures

Keep away from ignition sources

Ensure adequate ventilation

Avoid contact with eyes and skin.

Observe information for safe handling (item 7) and personal protective equipment (item 8).

Wear protective equipment. Keep unprotected persons away.

· 6.2 Environmental precautions:

Do not allow to enter the ground/soil.

Prevent material from reaching sewage system, holes and cellars.

Do not allow to enter drainage system, surface or ground water.

· 6.3 Methods and material for containment and cleaning up:

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

Ensure adequate ventilation.

Do not flush with water or aqueous cleansing agents

· 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 information on disposal.

SECTION 7: Handling and storage

- · 7.1 Precautions for safe handling No special precautions necessary if used correctly.
- Information about protection against explosions and fires:

Use explosion-proof apparatus / fittings and spark-proof tools.

Fumes can combine with air to form an explosive mixture.

Keep ignition sources away - Do not smoke.

Protect against electrostatic charges.

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

Keep away from heat and direct sunlight.

Store only in unopened original receptacles.

Provide solvent resistant, sealed floor.

Store in cool location.

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

Keep container tightly sealed.

Store in cool, dry conditions in well sealed containers.

- · Storage class 3
- · 7.3 Specific end use(s) No further relevant information available.

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SECTION 8: Exposure controls/personal protection

· 8.1 Control parameters

· Components with limit values that require monitoring at the workplace:

64-17-5 ethanol

WEL Long-term value: 1920 mg/m³, 1000 ppm

107-21-1 ethanediol

WEL Short-term value: 104** mg/m³, 40** ppm Long-term value: 10* 52** mg/m³, 20** ppm

Sk *particulate **vapour

- · 8.2 Exposure controls
- · Appropriate engineering controls No further data; see item 7.
- · Individual protection measures, such as personal protective equipment
- · General protective and hygienic measures

Wash hands during breaks and at the end of the work.

- · Breathing equipment: Filter A.
- Hand protection

Solvent resistant gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- · Material of gloves Butyl rubber, BR
- 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/face protection Tightly sealed safety glasses.
- · Body protection: Protective work clothing.

SECTION 9: Physical and chemical properties

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

· Colour: Blue

· Odour: Alcohol-like · Melting point/freezing point: -114 °C (Ethanol)

· Boiling point or initial boiling point and

boiling range 78 °C (Ethanol)
• Flammability Not applicable.

· Lower and upper explosion limit

· Lower: 3.5 Vol %
· Upper: 15 Vol %
· Flash point: 18 °C

· **Self-inflammability:** Product is not selfigniting.

· **Decomposition temperature:** Not determined.

∙**pH** 5 - 7

· Viscosity:

• Kinematic viscosity
• dynamic at 20 °C:

Not determined.
1.19 mPas

· Solubility

· Water: Miscible.

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· Partition coefficient n-octanol/water (log

-0.32 log POW (Ethanol) value)

Vapour pressure at 20 °C: 59 hPa

Density and/or relative density

Density at 20 °C 0.81 g/cm³ Not determined. · Relative density Not determined. · Vapour density

· 9.2 Other information

· Appearance:

· Form: Fluid

· Important information on protection of health

and environment, and on safety.

410 °C · Ignition temperature:

Explosive properties: Product is not explosive. However, formation of

explosive air/steam mixtures is possible.

· Change in condition

· Evaporation rate Not determined.

· Information with regard to physical hazard

classes · Explosives Void · Flammable gases Void Void · Aerosols · Oxidising gases Void · Gases under pressure Void

· Flammable liquids

Highly flammable liquid and vapour.

· Flammable solids Void · Self-reactive substances and mixtures Void · Pyrophoric liquids Void · Pyrophoric solids Void · Self-heating substances and mixtures Void · Substances and mixtures, which emit flammable gases in contact with water Void

· Oxidising liquids Void · Oxidising solids Void Organic peroxides Void Corrosive to metals Void · Desensitised explosives Void

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.

Heat, flames and sparks.

sources of ignition.

· 10.5 Incompatible materials:

Avoid contact with strong oxidizing agents.

Reaction with strong acids.

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· 10.6 Hazardous decomposition products:

No decomposition with intended use and storage. No dangerous decomposition products known

SECTION 11: Toxicological information

- 11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008
- · Acute toxicity Based on available data, the classification criteria are not met.

· LD/LC50 values that are relevant for classification:				
64-17-5 ethanol				
Oral	LD50	10,470 mg/kg (Rat) (OECD 401)		
Dermal	LD50	>2,000 mg/kg (Rabbit) (OECD 402)		
Inhalative	LC50/4 h	117-125 ppm (Rat) (OECD 403)		

- · 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.
- · 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.
- · 11.2 Information on other hazards
- · Endocrine disrupting properties

None of the ingredients is listed.

SECTION 12: Ecological information

· 12.1 Toxicity

Aquatic toxicity: 64-17-5 ethanol EC50 (48 h) 5,012 mg/l (Ceriodaphnia spec.) LC50 (96 h) 14,200 mg/l (Pimephales promelas) ErC50 (72 h) 275 mg/l (Chlorella vulgaris)

- 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.
- · 12.5 Results of PBT and vPvB assessment
- · PBT: Not applicable.
- · vPvB: Not applicable.
- 12.6 Endocrine disrupting properties

For information on endocrine disrupting properties see section 11.

- 12.7 Other adverse effects No further relevant information available.
- · Additional ecological information:
- · General notes:

Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water.

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Do not allow undiluted product or large quantities of it to reach ground water, water bodies or sewage system.

SECTION 13: Disposal considerations

- · 13.1 Waste treatment methods
- Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage

The waste code numbers mentioned are recommendations based on the probable use of the product.

- · Uncleaned packagings:
- Recommendation:

Packaging may be reused or recycled after cleaning.

Dispose of packaging according to regulations on the disposal of packagings.

14.1 UN number or ID number	
ADR/RID/ADN, IMDG, IATA	UN1170
14.2 UN proper shipping name	1170 ETHANOL SOLUTION (ETHYL ALCOH
ADIVIND/ADIV	SOLUTION)
IMDG	ETHANOL (ETHYL ALCOHOL)
IATA	ETHANOL
14.3 Transport hazard class(es)	
ADR/RID/ADN, IMDG, IATA	
Class Label	3 Flammable liquids. 3
14.4 Packing group ADR/RID/ADN, IMDG, IATA	II
14.5 Environmental hazards:	
Marine pollutant:	No
14.6 Special precautions for user	Warning: Flammable liquids.
Kemler Number:	33
EMS Number:	F-E,S-D
Stowage Category	A
14.7 Maritime transport in bulk accordi IMO instruments	ing to Not applicable.
Transport/Additional information:	
ADR/RID/ADN	
Limited quantities (LQ)	1L

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	(Contd. of page
· Excepted quantities (EQ)	Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
· Transport category	2
· Tunnel restriction code	D/E
· 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
· UN "Model Regulation":	UN 1170 ETHANOL SOLUTION (ETHY ALCOHOL SOLUTION), 3, II

SECTION 15: Regulatory information

- · 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- · Directive 2012/18/EU
- · Named dangerous substances ANNEX I None of the ingredients is listed.
- Seveso category P5c FLAMMABLE LIQUIDS
- Qualifying quantity (tonnes) for the application of lower-tier requirements 5.000 t
- Qualifying quantity (tonnes) for the application of upper-tier requirements 50.000 t
- 15.2 Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

SECTION 16: Other information

These data are based on our present knowledge. However, they shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship. This safety data sheet replaces the earlier version 4 for this product.

Relevant phrases

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.

Department issuing data specification sheet:

The safety data sheets were drawn up in cooperation with the Umweltkanzlei Dr.Rhein Beratungsund Prüfgesellschaft mbH, Phone: +49 511 228514-0.

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

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)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

Flam. Liq. 2: Flammable liquids - Category 2

Acute Tox. 4: Acute toxicity - Category 4

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

STOT RE 2: Specific target organ toxicity (repeated exposure) - Category 2

* Data compared to the previous version altered.