

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

Printing date 01.02.2020

Version number 104

Revision: 26.01.2020

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

- **1.1 Product identifier**

- Trade name **FLAMBIOL® Bioethanol 96,6 % Premium**

- UFI: F8C0-G06A-100R-GEEX

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

For details on the identifiable uses according to EC-regulation No. 1907/2006 see annex of this safety data sheet.

- **Application of the substance / the mixture**

Solvents

Additive for cosmetic or pharmaceutical preparations

- **1.3 Details of the supplier of the safety data sheet**

- **Manufacturer/Supplier:**

HÖFER CHEMIE® GmbH

Zur Fabrik 2

D - 66271 Kleinblittersdorf

phone: +49 6805 997 80 10

- **Informing department:**

Product safety department: phone: +49 6805 997 80 40

E-mail: olivier.hoefer@hoefer-chemie.de

- **1.4 Emergency telephone number:**

National Poisons Information Service (NPIS) - Emergency call (healthcare professionals): (+44) 844 892 0111 - 0344 892 0111

SECTION 2: Hazards identification

- **2.1 Classification of the substance or mixture**

- **Classification according to Regulation (EC) No 1272/2008**

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.

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

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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 the substances listed below with harmless additions

- **Dangerous components:**

CAS: 64-17-5 EINECS: 200-578-6 Reg.nr.: 01-2119457610-43	ethanol Flam. Liq. 2, H225; Eye Irrit. 2, H319	50-100%
CAS: 78-93-3 EINECS: 201-159-0 Reg.nr.: 01-2119457290-43	METILETILCETONA (MEK) Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%
CAS: 67-63-0 EINECS: 200-661-7 Reg.nr.: 01-2119457558-25	propan-2-ol Flam. Liq. 2, H225; Eye Irrit. 2, H319; STOT SE 3, H336	2.5-10%

- **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**
- **General advice:**
 Instantly remove any clothing soiled by the product.
 In case of unconsciousness bring patient into stable side position for transport.
- **After inhalation** Supply fresh air; consult doctor in case of symptoms.
- **After skin contact**
 Remove contaminated clothing immediately. Wash affected areas with plenty of water und soap. If irritation continues, contact a doctor.
- **After eye contact**
 Rinse immediately opened eye for several minutes under running water. Then consult doctor.
- **After swallowing**
 Rinse out mouth and then drink plenty of water.
 Do not induce vomiting.
- **4.2 Most important symptoms and effects, both acute and delayed**
 Dizziness, double vision and other typical symptoms of alcoholic intoxication. Vomiting, unconsciousness. Irritation of skin, eyes and airways.
- **Information for doctor**
 Inhalation of vapors may cause pulmonary edema. Dexamethasone therapy.
 Cleaning of the stomach should only be carried out with endotracheal intubation. Danger of aspiration.
 Renew lipid coating of the skin in order to protect against dermatitis. Symptomatic treatment.
- **4.3 Indication of any immediate medical attention and special treatment needed**
 No further relevant information available.

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SECTION 5: Firefighting measures

- **5.1 Extinguishing media**
- **Suitable extinguishing agents**
CO₂, extinguishing powder or water jet. Fight larger fires with water jet or alcohol-resistant foam.
- **For safety reasons unsuitable extinguishing agents**
Water with a full water jet.
Water.
- **5.2 Special hazards arising from the substance or mixture**
Can form explosive gas-air mixtures. In case of incomplete combustion carbon monoxide can arise. Fumes are heavier than air and distributed over ground. Inflammation is possible from a far distance.
Avoid contact with combustible substances
- **5.3 Advice for firefighters**
- **Protective equipment:** Wear full protective suit with self-contained breathing apparatus.
- **Additional information**
If possible, remove product off fire area (danger of bursting).
Keep people at a distance and stay on the windward side.
Dispose of fire debris and contaminated fire fighting water in accordance with official regulations.
Endangered containers in the surrounding area should be cooled with a water-hose.

SECTION 6: Accidental release measures

- **6.1 Personal precautions, protective equipment and emergency procedures**
Wear protective equipment and keep unprotected persons away.
Extinguish naked flames. Remove flammable sources. No smoking. Avoid sparks. Avoid contact with skin, eyes and clothing. Avoid inhalation of fumes. Air contaminated rooms thoroughly. Protect against electrostatic sparks.
- **6.2 Environmental precautions:**
Prevent material from reaching sewage system, holes and cellars.
Do not allow to enter drainage system, surface or ground water.
If large amounts are released, the authorities must be informed.
- **6.3 Methods and material for containment and cleaning up:**
Large spillages: contain and pump into containers
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Ensure adequate ventilation.
Do not flush with water or aqueous cleansing agents
Contaminated material has to be disposed as waste (see item 13).
- **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.
Danger of explosion

SECTION 7: Handling and storage

- **7.1 Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Ensure good interior ventilation, especially at floor level. (Fumes are heavier than air).
Avoid contact with eyes or skin.
Keep containers tightly sealed.
Ensure good ventilation/exhaustion at the workplace. Avoid repeated or long-term skin contact.
Prevent formation of aerosols.

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- **Information about protection against explosions and fires:**
 Keep ignition sources away - Do not smoke.
 Protect against electrostatic charges.
- **7.2 Conditions for safe storage, including any incompatibilities**
- **Storage**
 Protect against direct sunlight, other sources of heat and ignition.
 Store in cool, dry conditions in well sealed containers.
- **Requirements to be met by storerooms and containers:**
 Observe official regulations on storage and handling of water hazardous substances
 Unsuitable material for container: aluminium.
- **Information about storage in one common storage facility:**
 Store away from oxidising agents.
 According to guidelines of the VbF, flammable liquids should not be stored together.
- **Further information about storage conditions:**
 Keep container tightly sealed.
 Pay attention to regulations/technical rules for the storage of combustible liquids.
- **Storage class 3** (VCI - Konzept, 2007)
- **7.3 Specific end use(s)** No further relevant information available.

SECTION 8: Exposure controls/personal protection

- **Additional information about design of technical systems:**
 Room ventilation i.e. vacuum suction. Measures to be taken against electro-static sparks.
- **8.1 Control parameters**

- **Components with critical values that require monitoring at the workplace:**

64-17-5 ethanol

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

67-63-0 propan-2-ol

WEL Short-term value: 1250 mg/m³, 500 ppm
 Long-term value: 999 mg/m³, 400 ppm

78-93-3 METILETILCETONA (MEK)

WEL Short-term value: 899 mg/m³, 300 ppm
 Long-term value: 600 mg/m³, 200 ppm
 Sk, BMGV

- **DNELs**

64-17-5 ethanol

Oral	DNEL (population)	87 mg/kg bw/day (Long-term, systemic effects)
Dermal	DNEL (worker)	343 mg/kg bw/day (Long-term, systemic effects)
	DNEL (population)	206 mg/kg bw/day (Long-term, systemic effects)
Inhalative	DNEL (worker)	1,900 mg/m ³ (Acute, local effects)
		950 mg/m ³ (Long-term, systemic effects)
	DNEL (population)	950 mg/m ³ (Acute, local effects)
		114 mg/m ³ (Long-term, systemic effects)

78-93-3 METILETILCETONA (MEK)

Oral	DNEL (population)	31 mg/kg bw/day (Long-term, systemic effects)
Dermal	DNEL (worker)	1,161 mg/kg bw/day (Long-term, systemic effects)
	DNEL (population)	412 mg/kg bw/day (Long-term, systemic effects)

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Inhalative	DNEL (worker)	600 mg/m ³ (Long-term, systemic effects)
	DNEL (population)	106 mg/m ³ (Long-term, systemic effects)
67-63-0 propan-2-ol		
Oral	DNEL (population)	26 mg/kg bw/day (Long-term, systemic effects)
Dermal	DNEL (worker)	888 mg/kg bw/day (Long-term, systemic effects)
	DNEL (population)	319 mg/kg bw/day (Long-term, systemic effects)
Inhalative	DNEL (worker)	500 mg/m ³ (Long-term, systemic effects)
	DNEL (population)	89 mg/m ³ (Long-term, systemic effects)
- PNECs		
64-17-5 ethanol		
PNEC water	2.75 mg/l (intermittent releases)	
	0.96 mg/l (freshwater)	
	0.79 mg/l (marine water)	
PNEC sediment	3.6 mg/kg dw (freshwater)	
	2.9 mg/kg dw (marine water)	
PNEC soil	0.63 mg/kg dw (soil)	
PNEC STP	580 mg/l (sewage plant)	
78-93-3 METILETILCETONA (MEK)		
PNEC water	55.8 mg/l (freshwater)	
	55.8 mg/l (marine water)	
PNEC sediment	284.74 mg/kg dw (freshwater)	
	284.7 mg/kg dw (marine water)	
PNEC soil	22.5 mg/kg dw (soil)	
PNEC STP	709 mg/l (sewage plant)	
67-63-0 propan-2-ol		
PNEC water	140.9 mg/l (freshwater)	
	140.9 mg/l (marine water)	
PNEC	2,251 mg/l (sewage plant)	
PNEC sediment	552 mg/kg dw (freshwater)	
	552 mg/kg dw (marine water)	
PNEC	140.9 (intermittent releases)	
PNEC soil	28 mg/kg (soil)	
- Ingredients with biological limit values:		
78-93-3 METILETILCETONA (MEK)		
BMGV	70 µmol/L	
	Medium: urine	
	Sampling time: post shift	
	Parameter: butan-2-one	

- Additional information: The lists that were valid during the compilation were used as basis.

- 8.2 Exposure controls

- Personal protective equipment

- General protective and hygienic measures

Keep away from food, beverages and fodder.

Instantly remove any soiled and impregnated garments.

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

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Avoid contact with the eyes and skin.

Gases, fumes and aerosols should not be inhaled.

- Breathing equipment:

In case of brief exposure or low pollution use breathing filter apparatus. In case of intensive or longer exposure use breathing apparatus that is independent of circulating air.

- Recommended filter device for short term use:

Combination filter A-P2

Take care of limitations and rules for the use of breathing protection equipment (DGUV Regel 112-190).

- Protection of hands:

Protective gloves.

Check the permeability prior to each renewed use of the glove.

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

Butyl rubber, BR

Fluorocarbon rubber (Viton)

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

Material of gloves is recommended for a short-term single use to protect from splashes. For permanent usage contact manufacturer of gloves.

Change gloves if notice sign of disenchantment.

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

- For the permanent contact gloves made of the following materials are suitable:

Attention! Due to conditions (stressing, temperature) the practical usage of chemical protective gloves may be much shorter than the permeation time according to EN 374.

Fluorocarbon rubber (Viton) with 0.7 mm coating thickness (recommended: protective index 6, corresponding to > 480 minutes of permeation time according to EN 374).

- As protection from splashes gloves made of the following materials are suitable:

Chloroprene rubber, CR, recommended thickness of the material: ≥ 0.5 mm, penetration time: ≥ 30 min.

- Eye protection: Tightly sealed safety glasses.

- Body protection: Chemical protective clothing (solvent resistant, flame retardant, antistatic)

SECTION 9: Physical and chemical properties

- 9.1 Information on basic physical and chemical properties

- General Information

- Appearance:

Form:	Fluid
Colour:	Colourless
- Smell:	Alcohol-like
- Odour threshold:	Not determined

- pH-value: not applicable

Not determined

- Melting point/freezing point: Not determined

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- Initial boiling point and boiling range:	78 °C
- Flash point:	13 °C
- Inflammability (solid, gaseous)	Not applicable.
- Ignition temperature:	425 °C (lowest level for individual components)
- Decomposition temperature:	Not determined.
- Self-inflammability:	Product is not selfigniting.
- Explosive properties:	Product is not explosive. However, formation of explosive air/steam mixtures is possible.
- Critical values for explosion:	
Lower:	1.8 Vol %
Upper:	15.0 Vol %
	(lowest and highest value of the individual components)
- Vapour pressure:	Not determined.
- Density at 20 °C	0.79 g/cm ³
- Relative density	Not determined
- Vapour density	Not determined
- Evaporation rate	Not determined
- Solubility in / Miscibility with Water:	Insoluble
- Partition coefficient: n-octanol/water:	Not determined.
- Viscosity:	
dynamic at 20 °C:	1.2 mPas
kinematic:	Not determined
- 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:**
Can be distilled without decomposing at normal pressure
- **10.3 Possibility of hazardous reactions**
Reacts with strong oxidizing agents
Formation of explosive steam/air mixture likely.
- **10.4 Conditions to avoid** To avoid: warmth, flames, sparks
- **10.5 Incompatible materials:**
strong oxidizing agents
Strong acids
Aluminium, zinc and other light metals.
- **10.6 Hazardous decomposition products:**
Formation of carbon monoxide and carbon dioxide in case of fire.

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SECTION 11: Toxicological information

- **11.1 Information on toxicological effects**
- **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	LC 50 / 4 h	>50 mg/l (rat) (OECD 403) >20 mg/l (mouse)

78-93-3 METILETILCETONA (MEK)

Oral	LD50	3,300 mg/kg (rat)
Dermal	LD50	5,000 mg/kg (rbt)
Inhalative	LC 50 / 4 h	34.5 mg/l (rat) 40 mg/l (mus)

67-63-0 propan-2-ol

Oral	LD50	4,570 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rabbit) 13,400 mg/kg (rab)
Inhalative	LC 50 / 4 h	30 mg/l (rat)

- **Primary irritant effect:**
- **Skin corrosion/irritation** Slight irritant effect on skin and mucous membranes
- **Serious eye damage/irritation**
Causes serious eye irritation.
- **Respiratory or skin sensitisation** Based on available data, the classification criteria are not met.
- **Subacute to chronic toxicity:** Can lead to liver damage

- **STOT-repeated exposure:**

64-17-5 ethanol

Oral	NOAEL	1,760 mg/kg (rat) (OECD 408, 90 d, target organ: liver)
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67-63-0 propan-2-ol

Oral	NOAEL	900 mg/kg (rat) ((90d) OECD 408)
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- **Additional toxicological information:**

irritant

Hochkonzentrierter Ethanol reizt die Schleimhäute der Augen sowie der Atem- und Verdauungswege. Dämpfe in hohen Konzentrationen können Müdigkeit und Schwindelgefühl verursachen.

- **CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)**

The ingredients in this mixture do not meet the criteria for classification as CMR categories according to CLP.

- **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.

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SECTION 12: Ecological information

- 12.1 Toxicity

- Aquatic toxicity:

64-17-5 ethanol

LC 50 / 48 h	8,140 mg/l (Leuciscus idus)
EC 50 / 48 h	>10,000 mg/l (Daphnia magna)
EC 50 / 72 h	275 mg/l (Chlorella vulgaris) (OECD 201)

78-93-3 METILETILCETONA (MEK)

LC 50 / 96 h	>3,000 mg/l (fish)
EC 50 / 48 h	1,382 mg/l (Daphnia)

67-63-0 propan-2-ol

LC 50 / 48 h	>100 mg/l (Leuciscus idus)
EC 50 / 48 h	>100 mg/l (Daphnia magna)
EC 50 / 72 h	>100 mg/l (Scenedesmus subspicatus)

- 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.

- Ecotoxicological effects:

- Respiratory inhibition of communal activated sludge EC 20 (mg/l according to ISO 8192 B):

64-17-5 ethanol

EC 50 (static)	>100 mg/l (Chlorella pyrenoidosa) (OECD 201)
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- Additional ecological information:

- General notes:

Do not allow to enter drainage system, surface or ground water
 Water hazard class 1 (Self-assessment): slightly hazardous for water.

- 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

The following advice is related to new material and not to any processed products. In case of a mixture with other products other disposal methods may become necessary. If in doubt seek advice from product supplier or from local authorities.

- Recommendation

Must not be disposed of together with household garbage. Do not allow product to reach sewage system. If possible, send to be recycled, otherwise burn or deposit in a certified facility.
 Contaminated water to separate by separator and dispose off in line with administrative regulations.

- Waste disposal key number:

Since 01/01/99 the waste code numbers have not only been product-related but are also essentially application-related. The valid waste code number of the application can be obtained from the European waste catalogue.

- Uncleaned packagings: Disposal must be made according to official regulations.

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- Recommendation:

After complete emptying and cleaning, send to be reconditioned or recycled.
 Rented packaging: After optimal emptying, close immediately and return to the supplier without cleaning.
 Care should be taken that no other materials get into the packaging.
 Other containers: After complete emptying and cleaning, send to be reconditioned or recycled.
 Caution: Leftovers in the containers may cause the risk of explosion.
 Uncleaned containers should not be perforated, cut or welded.

SECTION 14: Transport information

- 14.1 UN-Number - ADR, IMDG, IATA	UN1170
- 14.2 UN proper shipping name - ADR - IMDG - IATA	1170 ETHANOL (ETHYL ALCOHOL) ETHANOL (ETHYL ALCOHOL) ETHANOL
- 14.3 Transport hazard class(es) - ADR - Class - Label	3 (F1) Flammable liquids. 3
- IMDG, IATA - Class - Label	3 Flammable liquids. 3
- 14.4 Packing group - ADR, IMDG, IATA	II
- 14.5 Environmental hazards: - Marine pollutant:	No
- 14.6 Special precautions for user - Kemler Number: - EMS Number:	Warning: Flammable liquids. 33 F-E,S-D
- 14.7 Transport in bulk according to Annex II of Marpol and the IBC Code	Not applicable.
- Transport/Additional information: - ADR - Limited quantities (LQ) - Excepted quantities (EQ)	1L Code: E2 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 500 ml
- Transport category - Tunnel restriction code	2 D/E
- UN "Model Regulation":	UN 1170 ETHANOL (ETHYL ALCOHOL), 3, II

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SECTION 15: Regulatory information

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

P303+P361+P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water [or shower].

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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.

- **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

- **REGULATION (EC) No 1907/2006 ANNEX XVII** Conditions of restriction: 3

- **National regulations**

- **Information about limitation of use:**

Employment restrictions concerning pregnant and lactating women must be observed.

Employment restrictions concerning young persons must be observed.

Schwangerschaftsgruppe D

- **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.

- **Relevant phrases**

Complete wording of hazard statements and risk phrases (H- and R-phrases) mentioned in section 3. These phrases refer to the constituents. The labelling for this product is stated in section 2.

H225 Highly flammable liquid and vapour.

H319 Causes serious eye irritation.

H336 May cause drowsiness or dizziness.

- **Department issuing data specification sheet:** see item 1: Informing department

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- Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

LEV: Local Exhaust Ventilation

NOAEL: No Observed Adverse Effect Level

RPE: Respiratory Protective Equipment

RCR: Risk Characterisation Ratio (RCR= PEC/PNEC)

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 Harmonized System of Classification and Labelling of Chemicals

CLP: Classification, Labelling and Packaging (Regulation (EC) No. 1272/2008)

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)

TRGS: Technische Regeln für Gefahrstoffe (Technical Rules for Dangerous Substances, BAuA, Germany)

ISO: International Organisation for Standardisation

DNEL: Derived No-Effect Level (REACH)

PNEC: Predicted No-Effect Concentration (REACH)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

vPvB: very Persistent and very Bioaccumulative

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.