

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: **22LE**
Version: **1.0 en**

date of compilation: 2023-07-19

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

1.1 Product identifier

Identification of the substance **Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration**

Article number 22LE

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

Relevant identified uses: Laboratory and analytical use
Laboratory chemical

Uses advised against: Do not use for products which come into contact with foodstuffs. Do not use for private purposes (household). Food, drink and animal feeding-stuffs.

1.3 Details of the supplier of the safety data sheet

Carl Roth GmbH + Co KG
Schoemperlenstr. 3-5
D-76185 Karlsruhe
Germany

Telephone:+49 (0) 721 - 56 06 0

Telefax: +49 (0) 721 - 56 06 149

e-mail: sicherheit@carlroth.de

Website: www.carlroth.de

Competent person responsible for the safety data sheet: :Department Health, Safety and Environment

e-mail (competent person): **sicherheit@carlroth.de**

1.4 Emergency telephone number

Name	Street	Postal code/city	Telephone	Website
National Poisons Information Service City Hospital	Dudley Rd	B187QH Birmingham	844 892 0111	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
2.6	Flammable liquid	2	Flam. Liq. 2	H225
3.10	Acute toxicity (oral)	3	Acute Tox. 3	H301
3.1D	Acute toxicity (dermal)	3	Acute Tox. 3	H311
3.1I	Acute toxicity (inhal.)	3	Acute Tox. 3	H331
3.3	Serious eye damage/eye irritation	1	Eye Dam. 1	H318

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Section	Hazard class	Cat-egory	Hazard class and category	Hazard statement
3.7	Reproductive toxicity	2	Repr. 2	H361d
3.8	Specific target organ toxicity - single exposure	1	STOT SE 1	H370

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

Immediate effects can be expected after short-term exposure. The product is combustible and can be ignited by potential ignition sources.

2.2 Label elements

Labelling

Signal word

Danger

Pictograms

GHS02, GHS05,
GHS06, GHS08



Hazard statements

H225	Highly flammable liquid and vapour
H301+H311+H331	Toxic if swallowed, in contact with skin or if inhaled
H318	Causes serious eye damage
H361d	Suspected of damaging the unborn child
H370	Causes damage to organs (eye)

Precautionary statements

Precautionary statements - prevention

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

Precautionary statements - response

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
P308+P313	IF exposed or concerned: Get medical advice/attention

Precautionary statements - storage

P405	Store locked up
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For professional users only

Hazardous ingredients for labelling:

Methanol, Salicylic acid, Triethylamine

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

2.3 Other hazards

Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.












SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of substance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Ethanol	CAS No 64-17-5 EC No 200-578-6 Index No 603-002-00-5	50 – 70	Flam. Liq. 2 / H225 Eye Irrit. 2 / H319	 	GHS-HC
Methanol	CAS No 67-56-1 EC No 200-659-6 Index No 603-001-00-X	30 – < 50	Flam. Liq. 2 / H225 Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 3 / H331 STOT SE 1 / H370	  	GHS-HC IOELV
Salicylic acid	CAS No 69-72-7 EC No 200-712-3 Index No 607-732-00-5	10 – < 20	Acute Tox. 4 / H302 Eye Dam. 1 / H318 Repr. 2 / H361d	  	GHS-HC
Triethylamine	CAS No 121-44-8 EC No 204-469-4 Index No 612-004-00-5	0,1 – < 1	Flam. Liq. 2 / H225 Acute Tox. 4 / H302 Acute Tox. 3 / H311 Acute Tox. 3 / H331 Skin Corr. 1A / H314 Eye Dam. 1 / H318 STOT SE 3 / H335	  	GHS-HC IOELV

Notes

GHS-HC: Harmonised classification (the classification of the substance corresponds to the entry in the list according to 1272/2008/EC, Annex VI)

IOELV: Substance with a community indicative occupational exposure limit value

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Name of substance	Identifier	Specific Conc. Limits	M-Factors	ATE	Exposure route
Methanol	CAS No 67-56-1 EC No 200-659-6	STOT SE 1; H370: C ≥ 10 % STOT SE 2; H371: 3 % ≤ C < 10 %	-	100 mg/kg 300 mg/kg 3 mg/l/4h	oral dermal inhalation: vapour
Salicylic acid	CAS No 69-72-7 EC No 200-712-3	-	-	891 mg/kg	oral
Triethylamine	CAS No 121-44-8 EC No 204-469-4	STOT SE 3; H335: C ≥ 1 %	-	730 mg/kg 580 mg/kg >2 mg/l/4h	oral dermal inhalation: vapour

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off immediately all contaminated clothing. Self-protection of the first aider.

Following inhalation

Call a physician immediately. If breathing is irregular or stopped, administer artificial respiration.

Following skin contact

Rinse skin with water/shower. After contact with skin, wash immediately with plenty of water.

Following eye contact

In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist.

Following ingestion

Rinse mouth immediately and drink plenty of water. Call a physician immediately. In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

4.2 Most important symptoms and effects, both acute and delayed

Following inhalation: Cough, Vertigo, Headache,

Following skin contact: Has degreasing effect on the skin,

After eye contact: Conjunctival redness of the eyes, Conjunctivitis (pink eye),

Following ingestion: Abdominal pain, Malaise, Vomiting, Poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness, Loss of righting reflex, and ataxia, Serious physical decay of vision, Risk of blindness, Large doses may result in coma and death, Risk of serious damage to eyes

4.3 Indication of any immediate medical attention and special treatment needed

none

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings
water spray, alcohol resistant foam, dry extinguishing powder, BC-powder, carbon dioxide (CO₂)

Unsuitable extinguishing media

water jet

5.2 Special hazards arising from the substance or mixture

Combustible. In case of insufficient ventilation and/or in use, may form flammable/explosive vapour-air mixture. Solvent vapours are heavier than air and may spread along floors. Places which are not ventilated, e.g. unventilated below ground level areas such as trenches, conduits and shafts, are particularly prone to the presence of flammable substances or mixtures. Vapours may form explosive mixtures with air.

Hazardous combustion products

In case of fire may be liberated: Nitrogen oxides (NO_x), Carbon monoxide (CO), Carbon dioxide (CO₂), May produce toxic fumes of carbon monoxide if burning.

5.3 Advice for firefighters

In case of fire and/or explosion do not breathe fumes. Fight fire with normal precautions from a reasonable distance. Wear self-contained breathing apparatus. Wear full chemical protective clothing.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures



For non-emergency personnel

Use personal protective equipment as required. Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray. Avoidance of ignition sources.

6.2 Environmental precautions

Keep away from drains, surface and ground water. Retain contaminated washing water and dispose of it.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

Advice on how to clean up a spill

Absorb with liquid-binding material (sand, diatomaceous earth, acid- or universal binding agents).

Other information relating to spills and releases

Place in appropriate containers for disposal. Ventilate affected area.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

6.4 Reference to other sections

Hazardous combustion products: see section 5. Personal protective equipment: see section 8. Incompatible materials: see section 10. Disposal considerations: see section 13.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Provision of sufficient ventilation. Use extractor hood (laboratory). Handle and open container with care. Avoid exposure. Clear contaminated areas thoroughly.

Measures to prevent fire as well as aerosol and dust generation



Keep away from sources of ignition - No smoking.

Take precautionary measures against static discharge. Due to danger of explosion, prevent leakage

of vapours into cellars, flues and ditches.

Advice on general occupational hygiene

When using do not eat or drink. Thorough skin-cleansing after handling the product. When using do not smoke.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated place. Keep container tightly closed. Protect from sunlight.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Store locked up. Ground/bond container and receiving equipment.

Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted. Use local and general ventilation.

Specific designs for storage rooms or vessels

Recommended storage temperature: 15 – 25 °C

7.3 Specific end use(s)

No information available.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

National limit values

Occupational exposure limit values (Workplace Exposure Limits)

Country	Name of agent	CAS No	Identifier	TWA [ppm]	TWA [mg/m ³]	STEL [ppm]	STEL [mg/m ³]	Ceiling-C [ppm]	Ceiling-C [mg/m ³]	Notation	Source
EU	triethylamine	121-44-8	IOELV	2	8,4	3	12,6			H	2000/39/EC
EU	methanol	67-56-1	IOELV	200	260					H	2006/15/EC
GB	triethylamine	121-44-8	WEL	2	8	4	17				EH40/2005
GB	ethanol	64-17-5	WEL	1.000	1.920						EH40/2005
GB	methanol	67-56-1	WEL	200	266	250	333				EH40/2005

Notation

Ceiling-C	Ceiling value is a limit value above which exposure should not occur
H	Absorbed through the skin
STEL	Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15-minute period (unless otherwise specified)
TWA	Time-weighted average (long-term exposure limit): measured or calculated in relation to a reference period of 8 hours time-weighted average (unless otherwise specified)

Relevant DNELs of components of the mixture

Name of substance	CAS No	Endpoint	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects
Methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
Methanol	67-56-1	DNEL	130 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
Methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Methanol	67-56-1	DNEL	20 mg/kg bw/day	human, dermal	worker (industry)	acute - systemic effects
Salicylic acid	69-72-7	DNEL	5 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Salicylic acid	69-72-7	DNEL	5 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
Salicylic acid	69-72-7	DNEL	2,3 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Triethylamine	121-44-8	DNEL	8,4 mg/m ³	human, inhalatory	worker (industry)	chronic - systemic effects
Triethylamine	121-44-8	DNEL	12,6 mg/m ³	human, inhalatory	worker (industry)	acute - systemic effects

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Relevant DNELs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Protection goal, route of exposure	Used in	Exposure time
Triethylamine	121-44-8	DNEL	8,4 mg/m ³	human, inhalatory	worker (industry)	chronic - local effects
Triethylamine	121-44-8	DNEL	12,6 mg/m ³	human, inhalatory	worker (industry)	acute - local effects
Triethylamine	121-44-8	DNEL	12,1 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Methanol	67-56-1	PNEC	20,8 mg/l	aquatic organisms	freshwater	short-term (single instance)
Methanol	67-56-1	PNEC	2,08 mg/l	aquatic organisms	marine water	short-term (single instance)
Methanol	67-56-1	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Methanol	67-56-1	PNEC	77 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Methanol	67-56-1	PNEC	7,7 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Methanol	67-56-1	PNEC	100 mg/kg	terrestrial organisms	soil	short-term (single instance)
Salicylic acid	69-72-7	PNEC	0,2 mg/l	aquatic organisms	freshwater	short-term (single instance)
Salicylic acid	69-72-7	PNEC	0,02 mg/l	aquatic organisms	marine water	short-term (single instance)
Salicylic acid	69-72-7	PNEC	162 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Salicylic acid	69-72-7	PNEC	1,42 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Salicylic acid	69-72-7	PNEC	0,142 mg/kg	aquatic organisms	marine sediment	short-term (single instance)
Salicylic acid	69-72-7	PNEC	0,166 mg/kg	terrestrial organisms	soil	short-term (single instance)
Triethylamine	121-44-8	PNEC	0,11 mg/l	aquatic organisms	freshwater	short-term (single instance)
Triethylamine	121-44-8	PNEC	0,011 mg/l	aquatic organisms	marine water	short-term (single instance)
Triethylamine	121-44-8	PNEC	100 mg/l	aquatic organisms	sewage treatment plant (STP)	short-term (single instance)
Triethylamine	121-44-8	PNEC	1,575 mg/kg	aquatic organisms	freshwater sediment	short-term (single instance)
Triethylamine	121-44-8	PNEC	0,158 mg/kg	aquatic organisms	marine sediment	short-term (single instance)

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Relevant PNECs of components of the mixture						
Name of substance	CAS No	End-point	Threshold level	Organism	Environmental compartment	Exposure time
Triethylamine	121-44-8	PNEC	0,25 mg/kg	terrestrial organisms	soil	short-term (single instance)

8.2 Exposure controls

Individual protection measures (personal protective equipment)

Eye/face protection



Use safety goggle with side protection.

Skin protection



• hand protection

Wear suitable gloves. Chemical protection gloves are suitable, which are tested according to EN 374. Check leak-tightness/impermeability prior to use. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves. The times are approximate values from measurements at 22 ° C and permanent contact. Increased temperatures due to heated substances, body heat etc. and a reduction of the effective layer thickness by stretching can lead to a considerable reduction of the breakthrough time. If in doubt, contact manufacturer. At an approx. 1.5 times larger / smaller layer thickness, the respective breakthrough time is doubled / halved. The data apply only to the pure substance. When transferred to substance mixtures, they may only be considered as a guide.

• type of material

Butyl caoutchouc (butyl rubber)

• material thickness

0,7mm

• breakthrough times of the glove material

>480 minutes (permeation: level 6)

• other protection measures

Take recovery periods for skin regeneration. Preventive skin protection (barrier creams/ointments) is recommended.

Flame-retardant protective clothing.

Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: AX (gas filters and combined filters against low-boiling point organic compounds, colour code: Brown).

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Environmental exposure controls

Keep away from drains, surface and ground water.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	liquid
Colour	colourless
Odour	characteristic
Melting point/freezing point	not determined
Boiling point or initial boiling point and boiling range	65 °C at 1.013 hPa
Flammability	flammable liquid in accordance with GHS criteria
Lower and upper explosion limit	not determined
Flash point	11 °C
Auto-ignition temperature	455 °C
Decomposition temperature	not relevant
pH (value)	not determined
Kinematic viscosity	not determined

Solubility(ies)

Water solubility miscible in any proportion

Partition coefficient

Partition coefficient n-octanol/water (log value): this information is not available

Vapour pressure not determined

Density and/or relative density

Density 0,86 g/cm³ at 20 °C

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard classes: There is no additional information.

Other safety characteristics:

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Miscibility

completely miscible with water

SECTION 10: Stability and reactivity

10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition. Vapours may form explosive mixtures with air.

If heated

Risk of ignition.

10.2 Chemical stability

The material is stable under normal ambient and anticipated storage and handling conditions of temperature and pressure.

10.3 Possibility of hazardous reactions

Danger of explosion: Oxidisers, Perchlorates, Nitrogen oxides (NOx), Chlorates, Halogenated hydrocarbons, Hydrogen peroxide, Nitric acid, Sulphuric acid,

Exothermic reaction with: Reducing agents, Acids, Chlorine, Chloroform, Acid chlorides, inorganic,

Dangerous/dangerous reactions with: Fluorine, Alkali metals, Alkaline earth metal, strong oxidiser

10.4 Conditions to avoid

UV-radiation/sunlight. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

10.5 Incompatible materials

aluminium, iron, zinc, different plastics, Rubber articles

10.6 Hazardous decomposition products

Hazardous combustion products: see section 5.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Test data are not available for the complete mixture.

Classification procedure

The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

Classification acc. to GHS

Acute toxicity

Toxic if swallowed. Toxic in contact with skin. Toxic if inhaled.

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
Methanol	67-56-1	oral	100 mg/kg
Methanol	67-56-1	dermal	300 mg/kg
Methanol	67-56-1	inhalation: vapour	3 mg/l/4h
Salicylic acid	69-72-7	oral	891 mg/kg
Triethylamine	121-44-8	oral	730 mg/kg

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Acute toxicity estimate (ATE) of components of the mixture			
Name of substance	CAS No	Exposure route	ATE
Triethylamine	121-44-8	dermal	580 mg/kg
Triethylamine	121-44-8	inhalation: vapour	>2 mg/l/4h

Acute toxicity of components of the mixture					
Name of substance	CAS No	Exposure route	Endpoint	Value	Species
Ethanol	64-17-5	oral	LD50	10.470 mg/kg	rat
Ethanol	64-17-5	inhalation: vapour	LC50	124,7 mg/l/4h	rat
Methanol	67-56-1	inhalation: vapour	LC50	131 mg/l/4h	rat
Methanol	67-56-1	oral	LD50	5.628 mg/kg	rat
Methanol	67-56-1	oral	LDLo	143 mg/kg	human
Methanol	67-56-1	dermal	LD50	15.800 mg/kg	rabbit
Salicylic acid	69-72-7	oral	LD50	891 mg/kg	rat
Salicylic acid	69-72-7	dermal	LD50	>2.000 mg/kg	rat
Triethylamine	121-44-8	oral	LD50	730 mg/kg	rat
Triethylamine	121-44-8	dermal	LD50	580 mg/kg	rabbit

Skin corrosion/irritation

Shall not be classified as corrosive/irritant to skin.

Serious eye damage/eye irritation

Causes serious eye damage.

Respiratory or skin sensitisation

Shall not be classified as a respiratory or skin sensitiser.

Germ cell mutagenicity

Shall not be classified as germ cell mutagenic.

Carcinogenicity

Shall not be classified as carcinogenic.

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

Causes damage to organs (eye).

Hazard category	Target organ	Exposure route
1	eye	if exposed

Specific target organ toxicity - repeated exposure

Shall not be classified as a specific target organ toxicant (repeated exposure).

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

abdominal pain, vomiting, loss of righting reflex, and ataxia, poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness, risk of blindness, large doses may result in coma and death

• If in eyes

conjunctivitis (pink eye), Causes serious eye damage, risk of blindness

• If inhaled

vertigo, cough, headache

• If on skin

has degreasing effect on the skin

• Other information

none

11.2 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

11.3 Information on other hazards

There is no additional information.

SECTION 12: Ecological information

12.1 Toxicity

Shall not be classified as hazardous to the aquatic environment.

Aquatic toxicity (acute) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	15.400 mg/l	fish	96 h
Ethanol	64-17-5	EC50	>10.000 mg/l	aquatic invertebrates	48 h
Ethanol	64-17-5	ErC50	22.000 mg/l	algae	96 h
Methanol	67-56-1	LC50	15.400 mg/l	fish	96 h
Methanol	67-56-1	ErC50	22.000 mg/l	algae	96 h
Salicylic acid	69-72-7	LC50	1.370 mg/l	fish	96 h
Salicylic acid	69-72-7	EC50	870 mg/l	aquatic invertebrates	48 h
Triethylamine	121-44-8	LC50	24 mg/l	fish	96 h
Triethylamine	121-44-8	ErC50	8 mg/l	algae	72 h

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Aquatic toxicity (chronic) of components of the mixture					
Name of substance	CAS No	Endpoint	Value	Species	Exposure time
Ethanol	64-17-5	LC50	1.806 mg/l	aquatic invertebrates	10 d
Ethanol	64-17-5	ErC50	675 mg/l	algae	4 d
Salicylic acid	69-72-7	EC50	380 mg/l	microorganisms	16 h
Triethylamine	121-44-8	LC50	137 mg/l	fish	60 d
Triethylamine	121-44-8	EC50	130 mg/l	fish	60 d

12.2 Persistence and degradability

1,816 mg/mg

Biodegradation

The relevant substances of the mixture are readily biodegradable.

Degradability of components of the mixture						
Name of substance	CAS No	Process	Degradation rate	Time	Method	Source
Ethanol	64-17-5	biotic/abiotic	94 %	d		
Ethanol	64-17-5	oxygen depletion	69 %	5 d		ECHA
Ethanol	64-17-5	oxygen depletion	84 %	10 d		ECHA
Ethanol	64-17-5	oxygen depletion	97 %	20 d		ECHA
Methanol	67-56-1	biotic/abiotic	99 %	30 d		
Methanol	67-56-1	oxygen depletion	69 %	5 d		ECHA
Salicylic acid	69-72-7	DOC removal	>90 %	4 d		ECHA
Triethylamine	121-44-8	biotic/abiotic	>90 %	d		
Triethylamine	121-44-8	carbon dioxide generation	80,3 %	29 d		ECHA

12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components of the mixture				
Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Ethanol	64-17-5		-0,31	0,6211
Methanol	67-56-1		-0,77	
Salicylic acid	69-72-7		2,25 (25 °C)	
Triethylamine	121-44-8	<0,5	1,45 (pH value: 13)	

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Does not contain a PBT-/vPvB-substance in a concentration of $\geq 0,1\%$.

12.6 Endocrine disrupting properties

Does not contain an endocrine disruptor (EDC) in a concentration of $\geq 0,1\%$.

12.7 Other adverse effects

Data are not available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods



This material and its container must be disposed of as hazardous waste. Dispose of contents/container in accordance with local/regional/national/international regulations.

Sewage disposal-relevant information

Do not empty into drains.

Waste treatment of containers/packagings

It is a dangerous waste; only packagings which are approved (e.g. acc. to ADR) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

13.2 Relevant provisions relating to waste

The allocation of waste identity numbers/waste descriptions must be carried out according to the EEC, specific to the industry and process.

Properties of waste which render it hazardous

- HP 3 flammable
- HP 4 irritant - skin irritation and eye damage
- HP 5 specific target organ toxicity (STOT)/aspiration toxicity
- HP 6 acute toxicity
- HP 10 toxic for reproduction

13.3 Remarks

Waste shall be separated into the categories that can be handled separately by the local or national waste management facilities. Please consider the relevant national or regional provisions. Non-contaminated packages may be recycled.

SECTION 14: Transport information

14.1 UN number or ID number

ADRRID	UN 1986
IMDG-Code	UN 1986
ICAO-TI	UN 1986

14.2 UN proper shipping name

ADRRID	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
IMDG-Code	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.



Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

ICAO-TI	Alcohols, flammable, toxic, n.o.s.
Technical name (hazardous ingredients)	Methanol, Triethylamine
14.3 Transport hazard class(es)	
ADRRID	3 (6.1)
IMDG-Code	3 (6.1)
ICAO-TI	3 (6.1)
14.4 Packing group	
ADRRID	II
IMDG-Code	II
ICAO-TI	II
14.5 Environmental hazards	non-environmentally hazardous acc. to the dangerous goods regulations
14.6 Special precautions for user	
Provisions for dangerous goods (ADR) should be complied within the premises.	
14.7 Maritime transport in bulk according to IMO instruments	
The cargo is not intended to be carried in bulk.	
14.8 Information for each of the UN Model Regulations	
Agreement concerning the International Carriage of Dangerous Goods by Road (ADR)Additional information	
Proper shipping name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Particulars in the transport document	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S., (contains: Methanol, Triethylamine), 3 (6.1), II, (D/E)
Classification code	FT1
Danger label(s)	3+6.1
 	
Special provisions (SP)	274, 802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Tunnel restriction code (TRC)	D/E
Hazard identification No	336
Emergency Action Code	3WE
Regulations concerning the International Carriage of Dangerous Goods by Rail (RID)Additional information	
Classification code	FT1
Danger label(s)	3+6.1

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE



Special provisions (SP)	274, 802(ADN)
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
Transport category (TC)	2
Hazard identification No	336

International Maritime Dangerous Goods Code (IMDG) - Additional information

Proper shipping name	ALCOHOLS, FLAMMABLE, TOXIC, N.O.S.
Particulars in the shipper's declaration	UN1986, ALCOHOLS, FLAMMABLE, TOXIC, N.O.S., (contains: Methanol, Triethylamine), 3 (6.1), II, 11°C c.c.
Marine pollutant	-
Danger label(s)	3+6.1



Special provisions (SP)	274
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-E, S-D
Stowage category	B

International Civil Aviation Organization (ICAO-IATA/DGR) - Additional information

Proper shipping name	Alcohols, flammable, toxic, n.o.s.
Particulars in the shipper's declaration	UN1986, Alcohols, flammable, toxic, n.o.s., (contains: Methanol, Triethylamine), 3 (6.1), II
Danger label(s)	3+6.1



Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

SECTION 15: Regulatory information

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

Relevant provisions of the European Union (EU)

Seveso Directive

2012/18/EU (Seveso III)			
No	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the application of lower and upper-tier requirements	Notes
H2	acute toxic (cat. 2 + cat. 3, inhal.)	50 200	41)

Notation

- 41) - Category 2, all exposure routes
- category 3, inhalation exposure route

Deco-Paint Directive

VOC content	90 %
VOC content	774 g/l

Industrial Emissions Directive (IED)

VOC content	90 %
VOC content	774 g/l

Directive on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS)

none of the ingredients are listed

Regulation concerning the establishment of a European Pollutant Release and Transfer Register (PRTR)

none of the ingredients are listed

Water Framework Directive (WFD)

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Ethanol	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	
Methanol	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

List of pollutants (WFD)				
Name of substance	Name acc. to inventory	CAS No	Listed in	Remarks
Salicylic acid	Substances and preparations, or the breakdown products of such, which have been proved to possess carcinogenic or mutagenic properties or properties which may affect steroidogenic, thyroid, reproduction or other endocrine-related functions in or via the aquatic environment		a)	

Legend

A) Indicative list of the main pollutants

Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

none of the ingredients are listed

Regulation on substances that deplete the ozone layer (ODS)

none of the ingredients are listed

Regulation concerning the export and import of hazardous chemicals (PIC)

none of the ingredients are listed

Regulation on persistent organic pollutants (POP)

none of the ingredients are listed

National regulations(GB)

List of substances subject to authorisation (GB REACH, Annex 14) / SVHC - candidate list

none of the ingredients are listed

Restrictions according to GB REACH, Annex 17

Dangerous substances with restrictions (GB REACH, Annex 17)			
Name of substance	Name acc. to inventory	CAS No	No
Karl-Fischer-ROTI®Hydroquant basic buffer	this product meets the criteria for classification in accordance with Regulation No 1272/2008/EC		3
Triethylamine	flammable / pyrophoric		40
Ethanol	flammable / pyrophoric		40
Methanol	Methanol	67-56-1	69
Methanol	flammable / pyrophoric		40

Other information

Directive 94/33/EC on the protection of young people at work. Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

National inventories

Country	Inventory	Status
AU	AIIC	all ingredients are listed
CA	DSL	all ingredients are listed
CN	IECSC	all ingredients are listed
EU	ECSI	all ingredients are listed
EU	REACH Reg.	all ingredients are listed
JP	CSCL-ENCS	all ingredients are listed
KR	KECI	all ingredients are listed
MX	INSQ	all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)

Legend

AIIC	Australian Inventory of Industrial Chemicals
CICR	Chemical Inventory and Control Regulation
CSCL-ENCS	List of Existing and New Chemical Substances (CSCL-ENCS)
DSL	Domestic Substances List (DSL)
ECSI	EC Substance Inventory (EINECS, ELINCS, NLP)
IECSC	Inventory of Existing Chemical Substances Produced or Imported in China
INSQ	National Inventory of Chemical Substances
KECI	Korea Existing Chemicals Inventory
NZIoC	New Zealand Inventory of Chemicals
PICCS	Philippine Inventory of Chemicals and Chemical Substances (PICCS)
REACH Reg.	REACH registered substances
TCSI	Taiwan Chemical Substance Inventory
TSCA	Toxic Substance Control Act

15.2 Chemical safety assessment

Chemical safety assessments for substances in this mixture were not carried out.

SECTION 16: Other information

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC
2006/15/EC	Commission Directive establishing a second list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC and amending Directives 91/322/EEC and 2000/39/EC
Acute Tox.	Acute toxicity
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concerning the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: 22LE

Abbr.	Descriptions of used abbreviations
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
COD	Chemical oxygen demand
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
EC50	Effective Concentration 50 %. The EC50 corresponds to the concentration of a tested substance causing 50 % changes in response (e.g. on growth) during a specified time interval
EC No	The EC Inventory (EINECS, ELINCS and the NLP-list) is the source for the seven-digit EC number, an identifier of substances commercially available within the EU (European Union)
EH40/2005	EH40/2005 Workplace exposure limits (http://www.nationalarchives.gov.uk/doc/open-government-licence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
ErC50	≡ EC50: in this method, that concentration of test substance which results in a 50 % reduction in either growth (EbC50) or growth rate (ErC50) relative to the control
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
Flam. Liq.	Flammable liquid
GB REACH	The REACH etc. (Amendment etc.) (EU Exit) Regulations 2019, SI 2019/758 (as amended)
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Nations
IATA	International Air Transport Association
IATA/DGR	Dangerous Goods Regulations (DGR) for the air transport (IATA)
ICAO	International Civil Aviation Organization
ICAO-TI	Technical instructions for the safe transport of dangerous goods by air
IMDG	International Maritime Dangerous Goods Code
IMDG-Code	International Maritime Dangerous Goods Code
index No	The Index number is the identification code given to the substance in Part 3 of Annex VI to Regulation (EC) No 1272/2008
IOELV	Indicative occupational exposure limit value
LC50	Lethal Concentration 50%: the LC50 corresponds to the concentration of a tested substance causing 50 % lethality during a specified time interval
LD50	Lethal Dose 50 %: the LD50 corresponds to the dose of a tested substance causing 50 % lethality during a specified time interval
log KOW	n-Octanol/water
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
PNEC	Predicted No-Effect Concentration

Safety data sheet Safety data sheet

acc. to Regulation (EC) No. 1907/2006 (REACH)



Karl-Fischer-ROTI®Hydroquant basic buffer , for KF titration

article number: **22LE**

Abbr.	Descriptions of used abbreviations
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
Repr.	Reproductive toxicity
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regulations concerning the International carriage of Dangerous goods by Rail)
Skin Corr.	Corrosive to skin
Skin Irrit.	Irritant to skin
STEL	Short-term exposure limit
STOT SE	Specific target organ toxicity - single exposure
TWA	Time-weighted average
VOC	Volatile Organic Compounds
vPvB	Very Persistent and very Bioaccumulative
WEL	Workplace exposure limit

Key literature references and sources for data

Agreement concerning the International Carriage of Dangerous Goods by Road (ADR). Regulations concerning the International Carriage of Dangerous Goods by Rail (RID). International Maritime Dangerous Goods Code (IMDG). Dangerous Goods Regulations (DGR) for the air transport (IATA).

Classification procedure

Physical and chemical properties. The classification is based on tested mixture. Health hazards. Environmental hazards. The method for classification of the mixture is based on ingredients of the mixture (additivity formula).

List of relevant phrases (code and full text as stated in section 2 and 3)

Code	Text
H225	Highly flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H361d	Suspected of damaging the unborn child.
H370	Causes damage to organs (eye).

Disclaimer

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.