acc. to Safe Work Australia - Code of Practice



Karl Fischer ROTI®Hydroquant coulo CG-K, for KF titration, coulometric for aldehydes and ketones

date of compilation: 2021-06-16 article number: 1KPP Version: GHS 1.0 en

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

1.1 **Product identifier**

Identification of the substance Karl Fischer ROTI®Hydroquant coulo CG-K, for

KF titration, coulometric for aldehydes and

ketones

1KPP Article number

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

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).

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 :Department Health, Safety and Environment

sheet:

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

1.4 **Emergency telephone number**

Name	Street	Postal code/city	Telephone	Website
NSW Poisons Information Centre Childrens Hospital	Hawkesbury Road	2145 West- mead, NSW	131126	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification acc. to GHS

Section	tion Hazard class		Hazard class and category	Hazard statement
2.6	Flammable liquid	4	Flam. Liq. 4	H227
3.1D	Acute toxicity (dermal)	4	Acute Tox. 4	H312
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.7	Reproductive toxicity	1B	Repr. 1B	H360Df

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Section Hazard class		Cat- egory	Hazard class and category	Hazard statement
3.9	Specific target organ toxicity - repeated exposure	2	STOT RE 2	H373

For full text of abbreviations: see SECTION 16

The most important adverse physicochemical, human health and environmental effects

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

2.2 Label elements

Labelling

Signal word Danger

Pictograms

GHS07, GHS08

H227





Hazard statements

H312	Harmful in contact with skin
H315	Causes skin irritation
H319	Causes serious eye irritation
H360Df	May damage the unborn child. Suspected of damaging fertility
H373	May cause damage to organs (thyroid gland) through prolonged or repeated ex-
	posure (if swallowed)

-

Precautionary statements

Precautionary statements - prevention

P210	Keep away from heat/sparks/open flames/hot surfaces No smoking
P260	Do not breathe dust/fume/gas/mist/vapours/spray

P280 Wear protective gloves/protective clothing

Combustible liquid

Precautionary statements - response

P302+P352 IF ON SKIN: Wash with plenty of soap and water

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact

lenses, if present and easy to do. Continue rinsing

P312 Call a POISON CENTER or doctor/physician if you feel unwell

P370+P378 In case of fire: Use sand, carbon dioxide or powder extinguisher for extinction

Precautionary statements - disposal

P501 Dispose of contents/container to industrial combustion plant

For professional users only

Hazardous ingredients for labelling: N-Methylformamide, Iodine, Tetrahydrofurfuryl

alcohol

2.3 Other hazards

This material is combustible, but will not ignite readily.

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Results of PBT and vPvB assessment

This mixture does not contain any substances that are assessed to be a PBT or a vPvB.

SECTION 3: Composition/information on ingredients

3.1 Substances

not relevant (mixture)

3.2 Mixtures

Description of the mixture

Name of sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
N-methylformamide	CAS No 123-39-7	≥ 50	Acute Tox. 4 / H312 Eye Irrit. 2A / H319 Repr. 1B / H360D		
Diethanolamine hy- drochloride	CAS No 14426-21-2	10 - 25	Skin Irrit. 2 / H315 Eye Irrit. 2A / H319	<u>(!</u>)	
Tetrahydrofurfuryl al- cohol	CAS No 97-99-4	10 – 25	Flam. Liq. 4 / H227 Eye Irrit. 2 / H319 Repr. 1B / H360Df		
Iodine	CAS No 7553-56-2	1-5	Acute Tox. 4 / H302 Acute Tox. 4 / H312 Acute Tox. 4 / H332 Skin Irrit. 2 / H315 Eye Irrit. 2A / H319 STOT SE 3 / H335 STOT RE 1 / H372	<u>(1)</u>	

For full text of abbreviations: see SECTION 16

SECTION 4: First aid measures

4.1 Description of first aid measures



General notes

Take off contaminated clothing.

Following inhalation

Provide fresh air. In all cases of doubt, or when symptoms persist, seek medical advice.

Following skin contact

Rinse skin with water/shower. In case of skin irritation, consult a physician.

Following eye contact

Irrigate copiously with clean, fresh water for at least 10 minutes, holding the eyelids apart. In case of eye irritation consult an ophthalmologist.

Following ingestion

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety

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data sheet if possible).

4.2 Most important symptoms and effects, both acute and delayed

Vomiting, Irritation

4.3 Indication of any immediate medical attention and special treatment needed

none

SECTION 5: Firefighting measures

5.1 Extinguishing media



Suitable extinguishing media

co-ordinate firefighting measures to the fire surroundings water spray, 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 (NOx), 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.

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. Danger of explosion.

6.3 Methods and material for containment and cleaning up

Advice on how to contain a spill

Covering of drains.

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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.

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. Avoid exposure.

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.

Advice on general occupational hygiene

Wash hands before breaks and after work. Keep away from food, drink and animal feedingstuffs.

7.2 Conditions for safe storage, including any incompatibilities

Keep container tightly closed.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

Ventilation requirements

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

National limit values

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Occupational exposure limit values (Workplace Exposure Limits)

Cou ntr y	Name of agent	CAS No	Identi- fier	TW A [pp m]	TWA [mg/ m³]	STE L [pp m]	STEL [mg/ m³]	Ceil ing- C [pp m]	Ceil- ing-C [mg/ m³]	Nota- tion	Source
AU	iodine	7553-56- 2	WES					0.1	1		WES

Notation

TWA

Ceiling-C Ceiling value is a limit value above which exposure should not occur

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)
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 sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time
Tetrahydrofurfuryl alcohol	97-99-4	DNEL	1.4 mg/m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Tetrahydrofurfuryl alcohol	97-99-4	DNEL	1 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects
Iodine	7553-56-2	DNEL	0.07 mg/ m³	human, inhalat- ory	worker (industry)	chronic - systemic effects
Iodine	7553-56-2	DNEL	0.01 mg/kg bw/day	human, dermal	worker (industry)	chronic - systemic effects

Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Tetrahydrofurfuryl alcohol	97-99-4	PNEC	1.9 ^{mg} / _l	aquatic organ- isms	freshwater	short-term (single instance)
Tetrahydrofurfuryl alcohol	97-99-4	PNEC	0.19 ^{mg} / _l	aquatic organ- isms	marine water	short-term (single instance)
Tetrahydrofurfuryl alcohol	97-99-4	PNEC	10 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Tetrahydrofurfuryl alcohol	97-99-4	PNEC	8.6 ^{mg} / _{kg}	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Tetrahydrofurfuryl alcohol	97-99-4	PNEC	0.86 ^{mg} / _{kg}	aquatic organ- isms	marine sediment	short-term (single instance)
Tetrahydrofurfuryl alcohol	97-99-4	PNEC	0.6 ^{mg} / _{kg}	terrestrial organ- isms	soil	short-term (single instance)
Iodine	7553-56-2	PNEC	18.13 ^{µg} / _l	aquatic organ- isms	freshwater	short-term (single instance)
Iodine	7553-56-2	PNEC	60.01 ^{µg} / _I	aquatic organ- isms	marine water	short-term (single instance)
Iodine	7553-56-2	PNEC	11 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)

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Relevant PNECs of components of the mixture

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Iodine	7553-56-2	PNEC	3.99 ^{mg} / _{kg}	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Iodine	7553-56-2	PNEC	20.22 ^{mg} / kg	aquatic organ- isms	marine sediment	short-term (single instance)
Iodine	7553-56-2	PNEC	5.95 ^{mg} / _{kg}	95 ^{mg} / _{kg} terrestrial organ- soil isms		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. 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

0,5 mm

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.

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Respiratory protection





Respiratory protection necessary at: Aerosol or mist formation. Type: A (against organic gases and vapours with a boiling point of > 65 °C , colour code: Brown).

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 not determined
Odour characteristic
Melting point/freezing point not determined

Boiling point or initial boiling point and boiling 100 °C

range

Flammability flammable liquid in accordance with GHS criteria

Lower and upper explosion limit 1.5 vol% - 10.6 vol%

Flash point 74 °C Auto-ignition temperature 280 °C

Decomposition temperature not relevant

pH (value) 5 - 6.5 (in aqueous solution: $100 \, {}^{9}I_{l}$, $20 \, {}^{\circ}C$)

Kinematic viscosity not determined

Solubility(ies)

Water solubility not determined

Partition coefficient

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

Vapour pressure 2 hPa at 10 °C

Density $1.095 \, {}^{9}/_{cm^3}$

Relative vapour density information on this property is not available

Particle characteristics not relevant (liquid)

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Other safety parameters

Oxidising properties none

9.2 Other information

Information with regard to physical hazard

classes:

Other safety characteristics: There is no additional information.

There is no additional information.

SECTION 10: Stability and reactivity

10.1 Reactivity

The mixture contains reactive substance(s). Risk of ignition.

If heated

Risk of ignition. Vapours may form explosive mixtures with air.

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

Violent reaction with: strong oxidiser, Nitrate, Nitric acid, Acids, Strong alkali

10.4 Conditions to avoid

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

10.5 Incompatible materials

different plastics

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

Harmful in contact with skin.

Acute toxicity estimate (ATE) of components of the mixture

Name of substance	CAS No	Exposure route	ATE
N-methylformamide	123-39-7	dermal	1,289 ^{mg} / _{kg}
Iodine	7553-56-2	oral	1,500 ^{mg} / _{kg}
Iodine	7553-56-2	inhalation: dust/mist	>4.588 ^{mg} / _l /4h

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Acute toxicity of components of the mixture										
Name of substance	CAS No	Exposure route	Endpoint	Value	Species					
N-methylformamide	123-39-7	oral	LD50	3,000 ^{mg} / _{kg}	rat					
N-methylformamide	123-39-7	dermal	LD50	1,289 ^{mg} / _{kg}	rabbit					
Tetrahydrofurfuryl alcohol	97-99-4	oral	LD50	>2,000 ^{mg} / _{kg}	rat					
Iodine	7553-56-2	oral	LD50	14,000 ^{mg} / _{kg}	not specified					
Iodine	7553-56-2	inhalation: dust/mist	LC50	>4.588 ^{mg} / _l / 4h	rat					
Iodine	7553-56-2	dermal	LD50	>2,000 ^{mg} / _{kg}	rabbit					

Skin corrosion/irritation

Causes skin irritation.

Serious eye damage/eye irritation

Causes serious eye irritation.

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

May damage the unborn child. Suspected of damaging fertility.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

May cause damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).

Hazard category	Target organ	Exposure route
2	thyroid gland	if swallowed

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

• If swallowed

Data are not available.

• If in eyes

Causes serious eye irritation

If inhaled

Data are not available.

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• If on skin

causes skin irritation

Other information

none

11.2 Endocrine disrupting properties

None of the ingredients are listed.

SECTION 12: Ecological information

12.1 Toxicity

Toxic to aquatic life.

Aquatic toxicity (acute) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
N-methylformamide	123-39-7	LC50	>10,000 ^{mg} / _l	fish	96 h
N-methylformamide	123-39-7	EC50	>500 ^{mg} / _l	aquatic invertebrates	48 h
N-methylformamide	123-39-7	ErC50	>500 ^{mg} / _l	algae	72 h
Tetrahydrofurfuryl al- cohol	97-99-4	LC50	>101 ^{mg} / _l	fish	96 h
Tetrahydrofurfuryl al- cohol	97-99-4	EC50	>91.7 ^{mg} / _l	aquatic invertebrates	48 h
Tetrahydrofurfuryl al- cohol	97-99-4	ErC50	>98.9 ^{mg} / _l	algae	72 h
Iodine	7553-56-2	LC50	1.67 ^{mg} / _l	fish	96 h
Iodine	7553-56-2	ErC50	0.13 ^{mg} / _l	algae	72 h

Aquatic toxicity (chronic) of components of the mixture

Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time
Tetrahydrofurfuryl al- cohol	97-99-4	EC50	>95.1 ^{mg} / _l	aquatic invertebrates	21 d
Iodine	7553-56-2	EC50	280 ^{mg} / _l	microorganisms	3 h

Biodegradation

Data are not available.

12.2 Process of degradability

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Degradabilit	Degradability of components of the mixture					
Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source
N-methylform- amide	123-39-7	DOC removal	100 %	7 d		ECHA
Tetrahydrofur- furyl alcohol	97-99-4	oxygen deple- tion	92 %	28 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
N-methylformamide	123-39-7		-0.87 (25 °C)	
Tetrahydrofurfuryl alcohol	97-99-4		-0.14 (24.7 °C)	
Iodine	7553-56-2		2.49 (20 °C)	

12.4 Mobility in soil

Data are not available.

12.5 Results of PBT and vPvB assessment

Data are not available.

12.6 Endocrine disrupting properties

None of the ingredients are listed.

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

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used.

Relevant provisions relating to waste(Basel Convention)

Properties of waste which render it hazardous

H8 Corrosives

H11 Toxic (Delayed or chronic)

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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.

SECTION 14: Transport information

14.1 UN number

UN RTDG UN 1760

IMDG-Code UN 1760 ICAO-TI UN 1760

14.2 UN proper shipping name

UN RTDGCORROSIVE LIQUID, N.O.S.IMDG-CodeCORROSIVE LIQUID, N.O.S.ICAO-TICorrosive liquid, n.o.s.

Technical name (hazardous ingredients)

Imidazole, Iodine

14.3 Transport hazard class(es)

UN RTDG 8
IMDG-Code 8
ICAO-TI 8

14.4 Packing group

UN RTDG III
IMDG-Code III
ICAO-TI III

14.5 Environmental hazards non-environmentally hazardous acc. to the dan-

gerous goods regulations

14.6 Special precautions for user

There is no additional information.

14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code

The cargo is not intended to be carried in bulk.

14.8 Information for each of the UN Model Regulations

Transport informationNational regulationsAdditional information(UN RTDG)

UN number 1760
Class 8
Packing group III
Danger label(s) 8



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Special provisions (SP) 223, 274 UN RTDG

Excepted quantities (EQ)

UN RTDG

Limited quantities (LQ)

UN RTDG

International Maritime Dangerous Goods Code (IMDG) - Additional information

CORROSIVE LIQUID, N.O.S. Proper shipping name

Particulars in the shipper's declaration UN1760, CORROSIVE LIQUID, N.O.S., (contains:

Imidazole, Iodine), 8, III

Marine pollutant

8 Danger label(s)



223, 274 Special provisions (SP)

Excepted quantities (EQ) E1 5 L Limited quantities (LQ)

EmS F-A, S-B

Stowage category Α

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

Proper shipping name Corrosive liquid, n.o.s.

Particulars in the shipper's declaration UN1760, Corrosive liquid, n.o.s., (contains: Im-

idazole, Iodine), 8, III

Danger label(s) 8



Special provisions (SP) **A3** E1 Excepted quantities (EQ) Limited quantities (LQ) 1 L

SECTION 15: Regulatory information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture There is no additional information.

National regulations(Australia)

Australian Inventory of Chemical Substances(AICS)

All ingredients are listed or exempt from listing.

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National inventories

Country	Inventory	Status
AU	AICS	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.	not all ingredients are listed
JP	CSCL-ENCS	not all ingredients are listed
KR	KECI	not all ingredients are listed
MX	INSQ	not all ingredients are listed
NZ	NZIoC	all ingredients are listed
PH	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed

Legend

AICS CICR CSCL-ENCS Australian Inventory of Chemical Substances Chemical Inventory and Control Regulation List of Existing and New Chemical Substances (CSCL-ENCS)

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 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

TCSI 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
Acute Tox.	Acute toxicity
ATE	Acute Toxicity Estimate
BCF	Bioconcentration factor
BOD	Biochemical Oxygen Demand
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)

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Abbr.	Descriptions of used abbreviations	
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	
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	
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions	
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	
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 specified time interval	
log KOW	n-Octanol/water	
MARPOL	International Convention for the Prevention of Pollution from Ships (abbr. of "Marine Pollutant")	
NLP	No-Longer Polymer	
PBT	Persistent, Bioaccumulative and Toxic	
PNEC	Predicted No-Effect Concentration	
ppm	Parts per million	
Repr.	Reproductive toxicity	
Skin Corr.	Corrosive to skin	
Skin Irrit.	Irritant to skin	
STEL	Short-term exposure limit	
STOT RE	Specific target organ toxicity - repeated exposure	
STOT SE	Specific target organ toxicity - single exposure	
TWA	Time-weighted average	
UN RTDG	UN Recommendations on the Transport of Dangerous Good	

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acc. to Safe Work Australia - Code of Practice



Karl Fischer ROTI®Hydroquant coulo CG-K , for KF titration, coulometric for aldehydes and ketones

article number: 1KPP

Abbr.	Descriptions of used abbreviations
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne conatminants

Key literature references and sources for data

Safe Work Australia's Code of Practice for Labelling of Workplace Hazardous Chemicals (under WHS Regulations).

UN Recommendations on the Transport of Dangerous Good. 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 chapter 2 and 3)

Code	Text
H227	Combustible liquid.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H360D	May damage the unborn child.
H360Df	May damage the unborn child. Suspected of damaging fertility.
H372	Causes damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).
H373	May cause damage to organs (thyroid gland) through prolonged or repeated exposure (if swallowed).

Disclaimer

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

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