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Karl Fischer ROTI®Hydroquant Working Medium K for KF titration, for aldehydes and ketones

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Replaces version of: 2021-09-01

Version: (GHS 2)

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

Product identifier 1.1

Identification of the substance Karl Fischer ROTI®Hydroquant Working Medi-

um K for KF titration, for aldehydes and ketones

Article number 5215

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

Relevant identified uses: Laboratory chemical

Laboratory and analytical use

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-

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	Hazard class	Cat- egory	Hazard class and category	Hazard statement
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.)	2	Acute Tox. 2	H330
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315

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Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.6	Carcinogenicity	2	Carc. 2	H351
3.7	Reproductive toxicity	2	Repr. 2	H361d
3.9	Specific target organ toxicity - repeated exposure	1	STOT RE 1	H372

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.

2.2 Label elements

Labelling

Signal word Danger

Pictograms

GHS06, GHS08



Hazard statements

H301+H311	Toxic if swallowed or in contact with skin

H315 Causes skin irritation

H319 Causes serious eye irritation

H330 Fatal if inhaled

H351 Suspected of causing cancer

H361d Suspected of damaging the unborn child

H372 Causes damage to organs through prolonged or repeated exposure

Precautionary statements

Precautionary statements - prevention

P260 Do not breathe dust/fume/gas/mist/vapours/spray

P280 Wear protective gloves/protective clothing

Precautionary statements - response

P301+P310 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

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

P304+P340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfort-

able for breathing

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

lenses, if present and easy to do. Continue rinsing

Precautionary statements - storage

P403+P233 Store in a well-ventilated place. Keep container tightly closed

For professional users only

Hazardous ingredients for labelling: Trichloromethane, 2-Chloroethanol

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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 (ED) 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 sub- stance	Identifier	Wt%	Classification acc. to GHS	Pictograms	Notes
Trichloromethane	CAS No 67-66-3 EC No 200-663-8	> 40 - 50	Acute Tox. 4 / H302 Acute Tox. 3 / H331 Skin Irrit. 2 / H315 Eye Irrit. 2 / H319 Carc. 2 / H351 Repr. 2 / H361d STOT RE 1 / H372		
2-Chloroethanol	CAS No 107-07-3 EC No 203-459-7	> 30 - 40	Flam. Liq. 3 / H226 Acute Tox. 3 / H301 Acute Tox. 3 / H311 Acute Tox. 2 / H330		

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. 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.

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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

Irritation, Cough, Dyspnoea, Spasms, Nausea, Headache, Vertigo, Dizziness, Unconsciousness, Loss of righting reflex, and ataxia

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, 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.

Hazardous combustion products

Carbon monoxide (CO), Carbon dioxide (CO₂), Hydrogen chloride (HCl), Hydrogen halides (HX), 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. Provide adequate ventilation.

6.2 Environmental precautions

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

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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.

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. When not in use, keep containers tightly closed. Clear contaminated areas thoroughly.

Advice on general occupational hygiene

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

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.

Ventilation requirements

Keep any substance that emits harmful vapours or gases in a place that allows these to be permanently extracted.

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

Occupational exposure limit values (Workplace Exposure Limits)

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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	ethylene chloro- hydrin (2-chloroeth- anol)	107-07-3	WES					1	3.3	I	WES
AU	chloroform (tri- chloromethane)	67-66-3	WES	2	10					Н	WES

Notation

Ceiling-C

H STEL

Ceiling value is a limit value above which exposure should not occur
Absorbed through the skin
Short-term exposure limit: a limit value above which exposure should not occur and which is related to a 15minute 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) **TWA**

Relevant DNELs of components										
Name of sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time				
Trichloromethane	67-66-3	DNEL	2.5 mg/m ³	human, inhalat- ory	worker (industry)	chronic - systemic effects				
Trichloromethane	67-66-3	DNEL	333 mg/m³	human, inhalat- ory	worker (industry)	acute - systemic effects				
Trichloromethane	67-66-3	DNEL	2.5 mg/m ³	human, inhalat- ory	worker (industry)	chronic - local ef- fects				
Trichloromethane	67-66-3	DNEL	0.94 mg/kg	human, dermal	worker (industry)	chronic - systemic				

Relevant PNECs of components										
Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time				
2-Chloroethanol	107-07-3	PNEC	0.006 ^{mg} / _l	aquatic organ- isms	freshwater	short-term (single instance)				
2-Chloroethanol	107-07-3	PNEC	0.001 ^{mg} / _l	aquatic organ- isms	marine water	short-term (single instance)				
2-Chloroethanol	107-07-3	PNEC	20 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)				
2-Chloroethanol	107-07-3	PNEC	0.021 ^{mg} / kg	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)				
2-Chloroethanol	107-07-3	PNEC	0.002 ^{mg} / kg	aquatic organ- isms	marine sediment	short-term (single instance)				
2-Chloroethanol	107-07-3	PNEC	0.001 ^{mg} / kg	terrestrial organ- isms	soil	short-term (single instance)				
Trichloromethane	67-66-3	PNEC	0.146 ^{mg} / _l	aquatic organ- isms	freshwater	short-term (single instance)				
Trichloromethane	67-66-3	PNEC	0.015 ^{mg} / _l	aquatic organ- isms	marine water	short-term (single instance)				

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Relevant PNECs of components

Name of sub- stance	CAS No	End- point	Threshol d level	Organism	Environmental compartment	Exposure time
Trichloromethane	67-66-3	PNEC	0.048 ^{mg} / _l	aquatic organ- isms	sewage treatment plant (STP)	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.45 ^{mg} / _{kg}	aquatic organ- isms	freshwater sedi- ment	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.09 ^{mg} / _{kg}	aquatic organ- isms	marine sediment	short-term (single instance)
Trichloromethane	67-66-3	PNEC	0.56 ^{mg} / _{kg}	terrestrial organ- isms	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

FKM (fluoro rubber)

material thickness

≥0,4 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: AX (gas filters and combined filters against low-boiling point organic compounds, 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 colourless

Odour characteristic Melting point/freezing point not determined

Boiling point or initial boiling point and boiling 60°C

range

Flammability this material is combustible, but will not ignite

readily

Lower and upper explosion limit 5 vol% (LEL) - 16 vol% (UEL)

Flash point >100 °C Auto-ignition temperature 425 °C

Decomposition temperature not relevant pH (value) 6-8 (20 °C)

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 211 hPa at 20 °C

Density and/or relative density

 $1.35 \, {}^{\rm g}/_{\rm cm^3}$ at 20 ${}^{\rm o}{\rm C}$ Density

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:

hazard classes acc. to GHS (physical hazards): not relevant

Other safety characteristics:

Miscibility completely miscible with water

SECTION 10: Stability and reactivity

10.1 Reactivity

This material is not reactive under normal ambient conditions.

If heated

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, Acetone, Alkali metals, Alkaline earth metal, Mineral acids, Strong alkali, Metal powder, Nitro compound, Peroxides, => Explosive properties

10.4 Conditions to avoid

There are no specific conditions known which have to be avoided.

10.5 Incompatible materials

different plastics, Rubber articles, Light metals

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. Fatal if inhaled.

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Acute toxicity estimate (ATE) of components

Name of substance	CAS No	Exposure route	ATE
2-Chloroethanol	107-07-3	oral	77 ^{mg} / _{kg}
2-Chloroethanol	107-07-3	dermal	416 ^{mg} / _{kg}
2-Chloroethanol	107-07-3	inhalation: vapour	0.5 ^{mg} / _l /4h
Trichloromethane	67-66-3	oral	908 ^{mg} / _{kg}
Trichloromethane	67-66-3	inhalation: vapour	3 ^{mg} / _l /4h

Acute toxicity of components

Name of substance	CAS No	Exposure route	Endpoint	Value	Species
2-Chloroethanol	107-07-3	oral	LD50	77 ^{mg} / _{kg}	rat
2-Chloroethanol	107-07-3	dermal	LD50	416 ^{mg} / _{kg}	rat
Trichloromethane	67-66-3	oral	LD50	908 ^{mg} / _{kg}	rat

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

Suspected of causing cancer.

Reproductive toxicity

Suspected of damaging the unborn child.

Specific target organ toxicity - single exposure

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

Specific target organ toxicity - repeated exposure

Causes damage to organs through prolonged or repeated exposure.

Aspiration hazard

Shall not be classified as presenting an aspiration hazard.

Symptoms related to the physical, chemical and toxicological characteristics

If swallowed

vomiting, nausea

If in eyes

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Causes serious eye irritation

If inhaled

vertigo, dizziness, deficits in perception and coordination, reaction time, or sleepiness, loss of righting reflex, and ataxia, cough, headache, poisoning effect on central nervous system can cause convulsions, laboured breathing and loss of consciousness

• If on skin

Prolonged or repeated skin contact may cause removal of natural fat from the skin resulting in dermatitis (skin inflammation), causes skin irritation

Other information

none

11.2 Endocrine disrupting properties

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

SECTION 12: Ecological information

12.1 Toxicity

Harmful to aquatic life.

Aquatic toxicity (acute) of components										
Name of sub- stance	CAS No	Endpoint	Value	Species	Exposure time					
2-Chloroethanol	107-07-3	LC50	15.2 ^{mg} / _l	fish	96 h					
2-Chloroethanol	107-07-3	EC50	212 ^{mg} / _l	aquatic invertebrates	48 h					
Trichloromethane	67-66-3	EC50	152.5 ^{mg} / _l	aquatic invertebrates	48 h					
Trichloromethane	67-66-3	ErC50	13.3 ^{mg} / _l	algae	72 h					

Aquatic toxicity (chronic) of components Name of substance CAS No Endpoint Value Species Exposure time Trichloromethane 67-66-3 EC50 0.48 mg/l microorganisms 24 h

12.2 Persistence and degradability

 $0.5638 \, \text{mg/mg}$

Biodegradation

Not readily biodegradable.

Degradability of components						
Name of substance	CAS No	Process	Degrada- tion rate	Time	Method	Source
2-Chloroethan- ol	107-07-3	oxygen deple- tion	93 %	28 d		ECHA
Trichlorometh- ane	67-66-3	biotic/abiotic	0 %	14 d		

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12.3 Bioaccumulative potential

Data are not available.

Bioaccumulative potential of components

Name of substance	CAS No	BCF	Log KOW	BOD5/COD
Trichloromethane	67-66-3		1.97 (25 °C)	

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 (ED) 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

Only packagings which are approved (e.g. acc. to the Dangerous Goods Regulations) may be used. Handle contaminated packages in the same way as the substance itself. Completely emptied packages can be recycled.

Relevant provisions relating to waste(Basel Convention)

Properties of waste which render it hazardous

H6.1 Poisonous (Acute)

H11 Toxic (Delayed or chronic)

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.

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SECTION 14: Transport information

14.1 UN number

UN RTDG UN

2810

IMDG-Code UN 2810

ICAO-TI UN 2810

14.2 UN proper shipping name

UN RTDG TOXIC LIQUID, ORGANIC, N.O.S.

IMDG-Code TOXIC LIQUID, ORGANIC, N.O.S.

ICAO-TI Toxic liquid, organic, n.o.s.

Technical name (hazardous ingredients)

Trichloromethane, 2-Chloroethanol

14.3 Transport hazard class(es)

UN RTDG 6.1

IMDG-Code 6.1

ICAO-TI 6.1

14.4 Packing group

UN RTDG I

IMDG-Code I

ICAO-TI I

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 IMO instruments

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 2810

Class 6.1

Packing group I

Danger label(s) 6.1



Special provisions (SP) 274, 315

UN RTDG

Excepted quantities (EQ) E5

UN RTDG

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Limited quantities (LQ) **UN RTDG**

Emergency Action Code 2X

International Maritime Dangerous Goods Code (IMDG) - Additional information

TOXIC LIQUID, ORGANIC, N.O.S. Proper shipping name

Particulars in the shipper's declaration

UN2810, TOXIC LIQUID, ORGANIC, N.O.S., (contains: Trichloromethane, 2-Chloroethanol), 6.1, I

Marine pollutant

Danger label(s) 6.1

Special provisions (SP) 274, 315

Excepted quantities (EQ) E5 Limited quantities (LQ) 0

EmS F-A, S-A

Stowage category

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

Proper shipping name Toxic liquid, organic, n.o.s.

UN2810, Toxic liquid, organic, n.o.s., (contains: Trichloromethane, 2-Chloroethanol), 6.1, I Particulars in the shipper's declaration

Danger label(s) 6.1

Special provisions (SP) A3, A4, A137

Excepted quantities (EQ) E5

SECTION 15: Regulatory information

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.

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.

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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	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed (ACTIVE)
VN	NCI	all ingredients are listed

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
NCI National Chemical 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

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

Indication of changes (revised safety data sheet)

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.1		Classification acc. to GHS: change in the listing (table)	yes
2.2		Hazard statements: change in the listing (table)	yes
2.2		Precautionary statements - prevention: change in the listing (table)	yes
2.2	Hazardous ingredients for labelling: Ethylene chlorohydrin, Trichloromethane	Hazardous ingredients for labelling: Trichloromethane, 2-Chloroethanol	yes

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Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.3	Results of PBT and vPvB assessment: This mixture does not contain any substances that are assessed to be a PBT or a vPvB.	Results of PBT and vPvB assessment: Does not contain a PBT-/vPvB-substance in a concentration of ≥ 0,1%.	yes
2.3		Endocrine disrupting properties: Does not contain an endocrine disruptor (ED) in a concentration of ≥ 0,1%.	yes
14.2	Technical name (hazardous ingredients): Trichloromethane, Ethylene chlorohydrin	Technical name (hazardous ingredients): Trichloromethane, 2-Chloroethanol	yes
14.8		Emergency Action Code: 2X	yes
14.8	Particulars in the shipper's declaration: UN2810, TOXIC LIQUID, ORGANIC, N.O.S., (contains: Trichloromethane, ethylene chlorohydrin), 6.1, I	Particulars in the shipper's declaration: UN2810, TOXIC LIQUID, ORGANIC, N.O.S., (contains: Trichloromethane, 2-Chloroethanol), 6.1, I	yes
14.8	Particulars in the shipper's declaration: UN2810, Toxic liquid, organic, n.o.s., (contains: Trichloromethane, ethylene chlorohydrin), 6.1, I	Particulars in the shipper's declaration: UN2810, Toxic liquid, organic, n.o.s., (contains: Trichloromethane, 2-Chloroethanol), 6.1, I	yes
15.1		National inventories: change in the listing (table)	yes

Abbreviations and acronyms

Abbr.	Descriptions of used abbreviations	
Acute Tox.	Acute toxicity	
ATE	Acute Toxicity Estimate	
BCF	Bioconcentration factor	
BOD	Biochemical Oxygen Demand	
Carc.	Carcinogenicity	
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)	
ED	Endocrine disruptor	
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	

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Abbr.	Descriptions of used abbreviations
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 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
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
LEL	Lower explosion limit (LEL)
log KOW	n-Octanol/water
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
TWA	Time-weighted average
UEL	Upper explosion limit (UEL)
UN RTDG	UN Recommendations on the Transport of Dangerous Good
vPvB	Very Persistent and very Bioaccumulative
WES	Safe Work Australia: Workplace exposure standards for airborne contaminants

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).

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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
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H302	Harmful if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H319	Causes serious eye irritation.
H330	Fatal if inhaled.
H331	Toxic if inhaled.
H351	Suspected of causing cancer.
H361d	Suspected of damaging the unborn child.
H372	Causes damage to organs through prolonged or repeated exposure.

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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