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

Hydrochloric acid ROTI $\$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

article number: **CN62** Version: **2.1 en** Replaces version of: 2022-12-14 Version: (2)

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

1.1 Product identifier

CAS number

Identification of the substance

Article number EC number **Hydrochloric acid** ROTI®Volum 0,5 mol/l - 0,5 N, volumetric standard solution

CN62

[231-595-7]

[7647-01-0]

Laboratory chemical

Laboratory and analytical use

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

Relevant identified uses:

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
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



date of compilation: 2021-08-18 Revision: 2023-01-19

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

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Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

article number: CN62

Section	Hazard class	Cat- egory	Hazard class and category	Hazard statement
2.16	Substance or mixture corrosive to metals	1	Met. Corr. 1	H290
3.2	Skin corrosion/irritation	2	Skin Irrit. 2	H315
3.3	Serious eye damage/eye irritation	2	Eye Irrit. 2	H319
3.8R	Specific target organ toxicity - single exposure (respirat- ory tract irritation)	3	STOT SE 3	H335

For full text of abbreviations: see SECTION 16

2.2 Label elements

Labelling

Signal word Warning

warmin

Pictograms

GHS05, GHS07



Hazard statements

H290	May be corrosive to metals
H315	Causes skin irritation
H319	Causes serious eye irritation
H335	May cause respiratory irritation

Precautionary statements

Precautionary statements - prevention

P261	Avoid breathing mist/vapours/spray
P280	Wear protective gloves/eye protection/face protection

Precautionary statements - response

P302+P352	IF ON SKIN: Wash with plenty of water
	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 CENTRE/doctor if you feel unwell

Hazardous ingredients for labelling:

ng: Hydrochloric acid %

2.3 Other hazards

Results of PBT and vPvB assessment

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

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

Hydrochloric acid ROTI®Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

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
Hydrochloric acid %	CAS No 7647-01-0 EC No 231-595-7 Index No 017-002-01-X	10 - < 20	Met. Corr. 1 / H290 Skin Corr. 1B / H314 Eye Dam. 1 / H318 STOT SE 3 / H335		B(a) GHS-HC IOELV

Notes

The classification refers to an aqueous solution B(a):

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

Name of sub- stance	Identifier	Specific Conc. Limits	M-Factors	ΑΤΕ	Exposure route
Hydrochloric acid %	CAS No 7647-01-0 EC No 231-595-7	Met. Corr. 1; H290: C ≥ 0,1 % Skin Corr. 1B; H314: C ≥ 25 % Skin Irrit. 2; H315: 10 % ≤ C < 25 % Eye Dam. 1; H318: C ≥ 25 % Eye Irrit. 2; H319: 10 % ≤ C < 25 % STOT SE 3; H335: C ≥ 10 %	-	-	

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.

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

Rinse mouth immediately and drink plenty of water. Call a physician immediately.

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



Hydrochloric acid ROTI $\$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

article number: CN62

4.2 Most important symptoms and effects, both acute and delayed Corrosion, Risk of blindness, Gastric perforation, Irritation, Cough, Dyspnoea

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

Non-combustible.

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

Avoid contact with skin, eyes and clothes. Do not breathe vapour/spray.

6.2 Environmental precautions

Keep away from drains, surface and ground water. The product is an acid. Before discharge into sewage plants the product normally needs to be neutralised.

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.

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.

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

Hydrochloric acid ROTI®Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

SECTION 7: Handling and storage

Precautions for safe handling 7.1

Provision of sufficient ventilation.

Advice on general occupational hygiene

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

Conditions for safe storage, including any incompatibilities 7.2

Keep container tightly closed. Keep only in original container.

Incompatible substances or mixtures

Observe hints for combined storage.

Consideration of other advice:

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)

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
EU	hydrogen chloride	7647-01- 0	IOELV	5	8	10	15				2000/39/ EC
GB	hydrogen chloride	7647-01- 0	WEL	1	2	5	8			ga	EH40/ 2005

Notation

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

ga STEL

As gases and aerosols 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 sub- stance	CAS No	End- point	Threshol d level	Protection goal, route of exposure	Used in	Exposure time			
Hydrochloric acid %	7647-01-0	DNEL	8 mg/m³	human, inhalat- ory	worker (industry)	chronic - local ef- fects			
Hydrochloric acid %	7647-01-0	DNEL	15 mg/m³	human, inhalat- ory	worker (industry)	acute - local ef- fects			

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

Hydrochloric acid ROTI $\$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

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 consider-able 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

NBR (Nitrile rubber)

material thickness

>0,3 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.

Respiratory protection



Respiratory protection necessary at: Aerosol or mist formation. Type: E (against acidic gases like sulphur dioxide or hydrogen chloride, colour code: Yellow).

Environmental exposure controls

Keep away from drains, surface and ground water.

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

Hydrochloric acid ROTI®Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

SEC	TION 9: Physical and chemical proper	ties
9.1	Information on basic physical and chemical pro	operties
	Physical state	liquid
	Colour	colourless - clear
	Odour	odourless
	Melting point/freezing point	not determined
	Boiling point or initial boiling point and boiling range	>85 °C
	Flammability	non-combustible
	Lower and upper explosion limit	not determined
	Flash point	not determined
	Auto-ignition temperature	not determined
	Decomposition temperature	not relevant
	pH (value)	<1 (20 °C)
	Kinematic viscosity	not determined
	Solubility(ies)	
	Water solubility	miscible in any proportion
	Partition coefficient	
	Partition coefficient n-octanol/water (log value):	not relevant (inorganic)
	Vapour pressure	not determined
	Density and/or relative density	
	Density	1,07 ^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:	
	Corrosive to metals	category 1: corrosive to metals
	Other safety characteristics:	

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

Hydrochloric acid ROTI $\$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

Miscibility

completely miscible with water

SECTION 10: Stability and reactivity

10.1 Reactivity

Substance or mixture corrosive to metals.

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

Dangerous/dangerous reactions with: Aldehydes, Aluminium, Amines, Carbide, Fluorine, Metals, Permanganates, Strong alkali, **Danger of explosion:** Alkali metals, Sulphuric acid, concentrated

10.4 Conditions to avoid

Keep away from heat.

10.5 Incompatible materials

different metals

Release of flammable materials with

Metals, Light metals (due to the release of hydrogen in an acid/alkaline medium)

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

Shall not be classified as acutely toxic.

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.

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

Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

article number: CN62

Reproductive toxicity

Shall not be classified as a reproductive toxicant.

Specific target organ toxicity - single exposure

May cause respiratory irritation.

Specific target organ toxicity - repeated exposure

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

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

Irritation to respiratory tract, cough, Dyspnoea

• If on skin

causes skin irritation

Other information

none

11.2 Endocrine disrupting properties

None of the ingredients are listed.

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.

12.2 Persistence and degradability

Data are not available.

12.3 Bioaccumulative potential Data are not available.

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.



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

Hydrochloric acid ROTI $\$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

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.

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 4 irritant - skin irritation and eye damage

HP8 corrosive

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

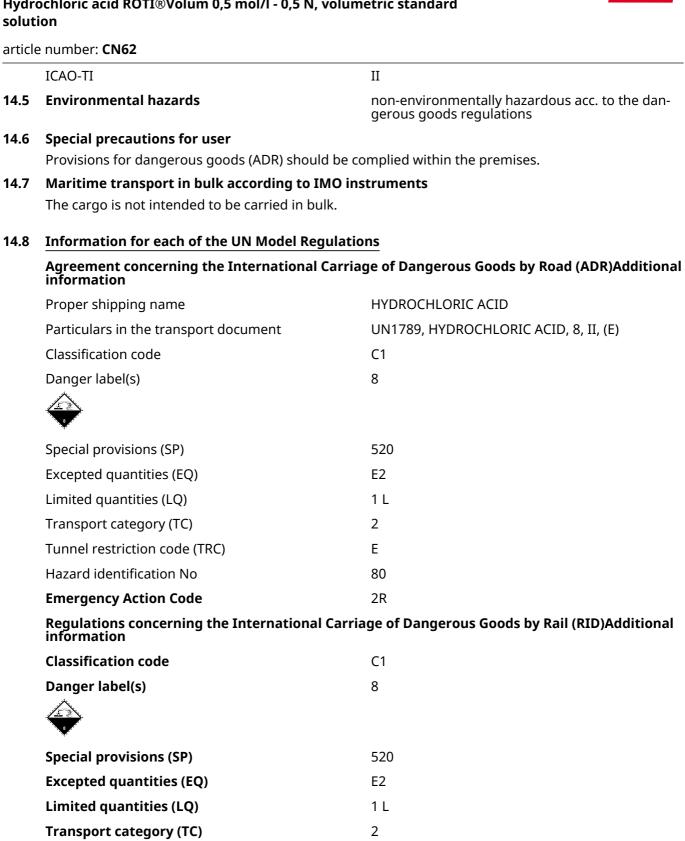
14.1 UN number or ID number

	ADRRID	UN 1789
	IMDG-Code	UN 1789
	ICAO-TI	UN 1789
14.2	UN proper shipping name	
	ADRRID	HYDROCHLORIC ACID
	IMDG-Code	HYDROCHLORIC ACID
	ICAO-TI	Hydrochloric acid
14.3	Transport hazard class(es)	
14.3	Transport hazard class(es) ADRRID	8
14.3	•	8
14.3	ADRRID	-
14.3	ADRRID IMDG-Code	8
	ADRRID IMDG-Code ICAO-TI	8

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

Hydrochloric acid ROTI®Volum 0,5 mol/l - 0,5 N, volumetric standard solution





80

Hazard identification No



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

Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

International Maritime Dangerous Goods Co	ode (IMDG) - Additional information
Proper shipping name	HYDROCHLORIC ACID
Particulars in the shipper's declaration	UN1789, HYDROCHLORIC ACID, 8, II
Marine pollutant	-
Danger label(s)	8
Excepted quantities (EQ)	E2
Limited quantities (LQ)	1 L
EmS	F-A, S-B
Stowage category	С
Segregation group	1 - Acids
International Civil Aviation Organization (IC	AO-IATA/DGR) - Additional information
Proper shipping name	Hydrochloric acid
Particulars in the shipper's declaration	UN1789, Hydrochloric acid, 8, II
Danger label(s)	8
Special provisions (SP)	A3
Excepted quantities (EQ)	E2
Limited quantities (LQ)	0,5 L

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)			
Νο	Dangerous substance/hazard categories	Qualifying quantity (tonnes) for the ap- plication of lower and upper-tier re- quirements	Notes
	not assigned		

Deco-Paint Directive

VOC content	0 % 0 ^g / _l

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

Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

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article number: CN62

Industrial Emissions Directive (IED)		
VOC content	0 %	
VOC content (Water content was discounted)	0 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)

none of the ingredients are listed

Regulation on the marketing and use of explosives precursors

none of the ingredients are listed

Regulation on drug precursors

Name of substance	CAS No	Wt%	Classification	CN Code	Threshold level
Hydrochloric acid %	7647-01-0	19	Category 3	2806 10 00	

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

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.

UN Convention against Illicit Traffic in Narcotic Drugs and Psychotropic Substances

Name of substance	CAS No	Listed in	HS code
Hydrochloric acid %	7647-01-0	Table II	2806.10

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

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

Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

Country	Inventory	Status
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
РН	PICCS	all ingredients are listed
TR	CICR	not all ingredients are listed
TW	TCSI	all ingredients are listed
US	TSCA	all ingredients are listed as "ACTIVE"
Legend		

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

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		Pictograms: 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		Precautionary statements - response: change in the listing (table)	yes
2.2	Labelling of packages where the contents do not exceed 125 ml: Signal word: Warning		yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes
2.2		Labelling of packages where the contents do not exceed 125 ml: change in the listing (table)	yes

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



Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

article number: CN62

Section	Former entry (text/value)	Actual entry (text/value)	Safety- relev- ant
2.2		Hazardous ingredients for labelling: Hydrochloric acid %	yes
14.8		Regulations concerning the International Car- riage of Dangerous Goods by Rail (RID)Addition- al information	yes
14.8		Classification code: C1	yes
14.8		Danger label(s): 8	yes
14.8		Danger label(s): change in the listing (table)	yes
14.8		Special provisions (SP): 520	yes
14.8		Excepted quantities (EQ): E2	yes
14.8		Limited quantities (LQ): 1 L	yes
14.8		Transport category (TC): 2	yes
14.8		Hazard identification No: 80	yes
15.1	Restrictions according to REACH, Annex XVII		yes
15.1		Dangerous substances with restrictions (REACH, Annex XVII): change in the listing (table)	yes
15.1	List of substances subject to authorisation (REACH, Annex XIV)/SVHC - candidate list: None of the ingredients are listed. (Or Concen- tration of the substance in a mixture: <0.1 % Mass concentration)		yes
15.1	VOC content: 0 %	VOC content: 0 % 0 ^g / _l	yes
15.1		VOC content (Water content was discounted): 0 ^g / _l	yes
15.1		Regulation on drug precursors: change in the listing (table)	yes
15.1		National inventories: change in the listing (table)	yes

Abbreviations and acronyms

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

Hydrochloric acid ROTI®Volum 0,5 mol/l - 0,5 N, volumetric standard solution



article number: CN62

Abbr.	Descriptions of used abbreviations
2000/39/EC	Commission Directive establishing a first list of indicative occupational exposure limit values in imple- mentation of Council Directive 98/24/EC
ADR	Accord relatif au transport international des marchandises dangereuses par route (Agreement concern- ing the International Carriage of Dangerous Goods by Road)
ATE	Acute Toxicity Estimate
CAS	Chemical Abstracts Service (service that maintains the most comprehensive list of chemical substances)
Ceiling-C	Ceiling value
CN Code	Combined Nomenclature
DGR	Dangerous Goods Regulations (see IATA/DGR)
DNEL	Derived No-Effect Level
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-li- cence/)
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances
EmS	Emergency Schedule
Eye Dam.	Seriously damaging to the eye
Eye Irrit.	Irritant to the eye
GHS	"Globally Harmonized System of Classification and Labelling of Chemicals" developed by the United Na- tions
HS	Harmonized Commodity Description and Coding System (Harmonized System, drawn up by the World Customs Organisation)
ΙΑΤΑ	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
Met. Corr.	Substance or mixture corrosive to metals
NLP	No-Longer Polymer
PBT	Persistent, Bioaccumulative and Toxic
ppm	Parts per million
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals
RID	Règlement concernant le transport International ferroviaire des marchandises Dangereuses (Regula- tions concerning the International carriage of Dangerous goods by Rail)

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



Hydrochloric acid ROTI ${\ensuremath{\mathbb R}}$ Volum 0,5 mol/l - 0,5 N, volumetric standard solution

article number: CN62

Abbr.	Descriptions of used abbreviations	
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
H290	May be corrosive to metals.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H318	Causes serious eye damage.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.

Disclaimer

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