Salzsäure 32 %

REY-CHEMIE AG

Safety Data Sheet

according to the REACH Regulation (EC) 1907/2006 amended by Regulation (EU) 2020/878
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SDS No: 12236-0023

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

1.1. Product identifier

Product form : Mixture
Product name : Salzsäure 32 %

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Chemical for synthesis

1.2.2. Uses advised against

Restrictions on use : For professional users only

1.3. Details of the supplier of the safety data sheet

Rey Chemie AG
Pilatusstrasse 31
5630 Muri
Switzerland
T +41 56 664 11 28
info@reychemie.ch

1.4. Emergency telephone number

Emergency number : NATIONAL: Tox Info Suisse: Tel. 145 (24 h)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Corrosive to metals, Category 1	H290
Skin corrosion/irritation, Category 1	H314
Serious eye damage/eye irritation, Category 1	H318
Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation	H335

Full text of H- and EUH-statements: see section 16

Adverse physicochemical, human health and environmental effects

Causes severe skin burns and eye damage. May cause respiratory irritation. May be corrosive to metals.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :

Signal word (CLP) : Danger
Contains : Hydrochloric acid
Hazard statements (CLP) : H290 - May be corrosive to metals.
H314 - Causes severe skin burns and eye damage.
H335 - May cause respiratory irritation.
Precautionary statements (CLP) : P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P301+P330+P331 - IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with 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.
P310 - Immediately call a POISON CENTER or doctor.
P405 - Store locked up.

2.3. Other hazards

Contains no PBT/vPvB substances ≥ 0.1% assessed in accordance with REACH Annex XIII.

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or substance(s) are not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at a concentration equal to or greater than 0,1 %

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Hydrochloric acid Substance with a Community workplace exposure limit	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-01-X REACH-no: 01-2119484862-27	≥ 30 – < 35	Met. Corr. 1, H290 Skin Corr. 1A, H314 STOT SE 3, H335

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
Hydrochloric acid	CAS-No.: 7647-01-0 EC-No.: 231-595-7 EC Index-No.: 017-002-01-X REACH-no: 01-2119484862-27	(0.1 ≤ C < 100) Met. Corr. 1, H290 (10 ≤ C < 100) STOT SE 3, H335 (10 ≤ C < 25) Eye Irrit. 2, H319 (10 ≤ C < 25) Skin Irrit. 2, H315 (25 ≤ C < 100) Skin Corr. 1B, H314

Full text of H- and EUH-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Adhere to personal protective measures when giving first aid. Take off immediately all contaminated clothing.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a doctor. In case of loss of consciousness, place the victim in the recovery position.

First-aid measures after skin contact : Wash skin with plenty of water. Call a doctor.

First-aid measures after eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist.

First-aid measures after ingestion : Do not induce vomiting. Call a doctor. Drink plenty of water.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects after inhalation : May cause respiratory irritation.

Symptoms/effects after skin contact : Causes severe burns.

Symptoms/effects after eye contact : Causes serious eye damage.

Symptoms/effects after ingestion : May perforate the oesophagus or the digestive tract.

4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Fire-extinguishing activities according to surrounding. Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Explosion hazard : Product is not explosive.

Hazardous decomposition products in case of fire : Toxic fumes may be released. Hydrogen chloride.

5.3. Advice for firefighters

Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus.

Other information : Cool containers at risk with water spray jet. Fire residues and contaminated firefighting water must be disposed of in accordance with the local regulations.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Avoid contact with eyes, skin or mucous membrane. Evacuate the danger area.

6.1.1. For non-emergency personnel

Emergency procedures : Ventilate spillage area. Avoid contact with skin, eyes and clothing. Evacuate unnecessary personnel. Wear personal protective equipment.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Do not discharge into the drains/surface waters/groundwater.

6.3. Methods and material for containment and cleaning up

For containment : Collect spillage.

Methods for cleaning up : Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents). Take up mechanically (sweeping, shovelling) and collect in suitable container for disposal. Ensure adequate air ventilation. Clean contaminated surface thoroughly.

Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

Refer to protective measures listed in sections 7 and 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : Avoid contact with eyes, skin or mucous membrane.

Precautions for safe handling : Use only outdoors or in a well-ventilated area. Keep container tightly closed. Handle and open container with care. When diluting, always stir product into water. Avoid contact with skin, eyes and clothing.

Hygiene measures	:	Do not eat, drink or smoke when using this product. Always wash hands after handling the product. Take off immediately all contaminated clothing and wash it before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions	:	Keep container tightly closed in a dry, cool and well-ventilated place. Avoid sub-soil penetration. Keep out of frost.
Incompatible materials	:	Aluminium. Light metals.
Storage temperature	:	15 – 25 °C
Heat and ignition sources	:	Keep away from heat and direct sunlight.
Information on mixed storage	:	Keep away from food, drink and animal feeding stuffs.
Storage area	:	Keep out of frost.

Switzerland

Storage class (LK)	:	LK 8 - Corrosive materials

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

8.1.1 National occupational exposure and biological limit values

Hydrochloric acid (7647-01-0)	
Switzerland - Occupational Exposure Limits	
Local name	Acide chlorhydrique / Chlorwasserstoff [Salzsäure]
MAK (OEL TWA)	3 mg/m³
	2 ppm
KZGW (OEL STEL)	6 mg/m³
	4 ppm
Notation	SS_C / SS_C
Remark	NIOSH, DFG, OSHA
Regulatory reference	www.suva.ch, 01.01.2024

8.1.2. Recommended monitoring procedures

No additional information available

8.1.3. Air contaminants formed

No additional information available

8.1.4. DNEL and PNEC

No additional information available

8.1.5. Control banding

No additional information available

8.2. Exposure controls

8.2.1. Appropriate engineering controls

Appropriate engineering controls:
Ensure good ventilation of the work station. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

8.2.2. Personal protection equipment

8.2.2.1. Eye and face protection

Eye protection:
Protective goggles (EN 166)

8.2.2.2. Skin protection

Skin and body protection:
Long sleeved protective clothing. EN 368

Hand protection:
Chemically resistant protective gloves. Select the appropriate glove material adhering to the breakthrough time, permeation rate and the degradation. Requirements can vary as a function of the use. Therefore it is necessary to adhere additionally to the recommendations given by the manufacturer of protective gloves

Hand protection					
Type	**Material**	**Permeation**	**Thickness (mm)**	**Penetration**	**Standard**
protective gloves	Nitrile rubber (NBR), Polyvinylchloride (PVC)	6 (> 480 minutes)	0,35		EN ISO 374

8.2.2.3. Respiratory protection

Respiratory protection:
Not required for normal conditions of use

Respiratory protection			
Device	**Filter type**	**Condition**	**Standard**
Breathing apparatus with filter	E-P2	Short term exposure	
Self contained breathing apparatus		Long term exposure	

8.2.2.4. Thermal hazards

No additional information available

8.2.3. Environmental exposure controls

Environmental exposure controls:
Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	:	Liquid
Colour	:	Colourless.
Odour	:	Pungent.
Odour threshold	:	Not available
Melting point	:	-30 °C
Freezing point	:	Not available
Boiling point	:	45 – 50 °C
Flammability	:	Not applicable
Explosive properties	:	Product is not explosive.
Oxidising properties	:	Not self-igniting.
Lower explosive limit (LEL)	:	Not available
Upper explosive limit (UEL)	:	Not available
Flash point	:	Not available
Auto-ignition temperature	:	Not available
Decomposition temperature	:	Not available
pH	:	< 1 (20°C)
Viscosity, kinematic	:	Not available
Viscosity, dynamic	:	2.3 mPa·s

Solubility	:	completely miscible with: Water.
Partition coefficient n-octanol/water (Log Kow)	:	Not available
Vapour pressure	:	≈ 190 hPa (20°C)
Vapour pressure at 50°C	:	Not available
Density	:	≈ 1.162 g/cm³ (20°C)
Relative density	:	Not available
Relative vapour density at 20°C	:	Not available
Particle characteristics	:	Not applicable

9.2. Other information

9.2.1. Information with regard to physical hazard classes

No additional information available

9.2.2. Other safety characteristics

VOC content	:	0 %
Additional information	:	Solvent content 0 %

SECTION 10: Stability and reactivity

10.1. Reactivity

May be corrosive to metals.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

When diluting, always stir product into water.

10.4. Conditions to avoid

See Section 7.

10.5. Incompatible materials

Strong acids and oxidants. Light metals.

10.6. Hazardous decomposition products

No decomposition if stored normally.

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (dermal)	:	Not classified (Based on available data, the classification criteria are not met)
Acute toxicity (inhalation)	:	Not classified (Based on available data, the classification criteria are not met)
Skin corrosion/irritation	:	Causes severe skin burns. pH: < 1 (20°C)
Serious eye damage/irritation	:	Causes serious eye damage. pH: < 1 (20°C)
Respiratory or skin sensitisation	:	Not classified (Based on available data, the classification criteria are not met)
Germ cell mutagenicity	:	Not classified (Based on available data, the classification criteria are not met)
Carcinogenicity	:	Not classified (Based on available data, the classification criteria are not met)
Reproductive toxicity	:	Not classified (Based on available data, the classification criteria are not met)
STOT-single exposure	:	May cause respiratory irritation.
STOT-repeated exposure	:	Not classified (Based on available data, the classification criteria are not met)
Aspiration hazard	:	Not classified (Based on available data, the classification criteria are not met)

11.2. Information on other hazards

No additional information available

SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short–term (acute) : Not classified (Based on available data, the classification criteria are not met)

Hazardous to the aquatic environment, long–term (chronic) : Not classified (Based on available data, the classification criteria are not met)

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Endocrine disrupting properties

No additional information available

12.7. Other adverse effects

Additional information : Do not flush into surface water or sewer system

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste treatment methods : Disposal in accordance with local regulations. Dispose of contents/container in accordance with licensed collector's sorting instructions.

Switzerland

Waste code (VeVA) : 16 05 08 - [S] Discarded organic chemicals consisting of or containing dangerous substances

SECTION 14: Transport information

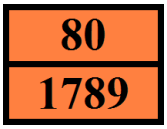
In accordance with ADR / IMDG / IATA / ADN / RID

ADR	IMDG	IATA	ADN	RID
14.1. UN number or ID number				
UN 1789	UN 1789	UN 1789	UN 1789	UN 1789
14.2. UN proper shipping name				
HYDROCHLORIC ACID	HYDROCHLORIC ACID	Hydrochloric acid	HYDROCHLORIC ACID	HYDROCHLORIC ACID
Transport document description				
UN 1789 HYDROCHLORIC ACID, 8, II, (E)	UN 1789 HYDROCHLORIC ACID, 8, II	UN 1789 Hydrochloric acid, 8, II	UN 1789 HYDROCHLORIC ACID, 8, II	UN 1789 HYDROCHLORIC ACID, 8, II

ADR	IMDG	IATA	ADN	RID
14.3. Transport hazard class(es)				
8	8	8	8	8
				
14.4. Packing group				
II	II	II	II	II
14.5. Environmental hazards				
Dangerous for the environment: No	Dangerous for the environment: No Marine pollutant: No	Dangerous for the environment: No	Dangerous for the environment: No	Dangerous for the environment: No
No supplementary information available				

14.6. Special precautions for user

Overland transport

Classification code (ADR)	:	C1
Special provisions (ADR)	:	520
Limited quantities (ADR)	:	1l
Excepted quantities (ADR)	:	E2
Packing instructions (ADR)	:	P001, IBC02
Mixed packing provisions (ADR)	:	MP15
Transport category (ADR)	:	2
Hazard identification number (Kemler No.)	:	80
Orange plates	:	
Tunnel restriction code (ADR)	:	E

Transport by sea

Limited quantities (IMDG)	:	1 L
Excepted quantities (IMDG)	:	E2
Packing instructions (IMDG)	:	P001
IBC packing instructions (IMDG)	:	IBC02
IBC special provisions (IMDG)	:	B20
Tank instructions (IMDG)	:	T8
Tank special provisions (IMDG)	:	TP2
EmS-No. (Fire)	:	F-A
EmS-No. (Spillage)	:	S-B
Stowage category (IMDG)	:	C
Segregation (IMDG)	:	SG36, SG49

Air transport

PCA Excepted quantities (IATA)	:	E2
PCA Limited quantities (IATA)	:	Y840
PCA limited quantity max net quantity (IATA)	:	0.5L
PCA packing instructions (IATA)	:	851
PCA max net quantity (IATA)	:	1L
CAO packing instructions (IATA)	:	855
CAO max net quantity (IATA)	:	30L
Special provisions (IATA)	:	A3
ERG code (IATA)	:	8L

Inland waterway transport

Classification code (ADN)	:	C1
Special provisions (ADN)	:	520
Limited quantities (ADN)	:	1 L
Excepted quantities (ADN)	:	E2
Equipment required (ADN)	:	PP, EP
Number of blue cones/lights (ADN)	:	0

Rail transport

Classification code (RID)	:	C1
Special provisions (RID)	:	520
Limited quantities (RID)	:	1L
Excepted quantities (RID)	:	E2
Packing instructions (RID)	:	P001, IBC02
Transport category (RID)	:	2
Hazard identification number (RID)	:	80

14.7. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

REACH Annex XVII (Restriction List)

Contains no substance(s) listed on REACH Annex XVII (Restriction Conditions)

REACH Annex XIV (Authorisation List)

Contains no substance(s) listed on REACH Annex XIV (Authorisation List)

REACH Candidate List (SVHC)

Contains no substance(s) listed on the REACH Candidate List

PIC Regulation (Prior Informed Consent)

Contains no substance(s) listed on the PIC list (Regulation EU 649/2012 concerning the export and import of hazardous chemicals)

POP Regulation (Persistent Organic Pollutants)

Contains no substance(s) listed on the POP list (Regulation EU 2019/1021 on persistent organic pollutants)

Ozone Regulation (1005/2009)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 1005/2009 on substances that deplete the ozone layer)

VOC Directive (2004/42)

VOC content : 0 %

Explosives Precursors Regulation (2019/1148)

Contains no substance(s) listed on the Explosives Precursors list (Regulation EU 2019/1148 on the marketing and use of explosives precursors)

Drug Precursors Regulation (273/2004)

Contains substance(s) listed on the Drug Precursors list (Regulation EC 273/2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances)

Name	CN designation	CAS-No.	CN code	Category, Subcategory	Threshold	Annex
Hydrochloric acid	Hydrogen chloride	7647-01-0	2806 10 00	Category 3		Annex I

15.1.2. National regulations

Switzerland

Swiss National Regulations	:	Article 13 Order on the protection of maternity (RS 822.111.52): Pregnant women and breastfeeding mothers cannot come into contact with this product (this substance/this preparation) when working except where it has been established, on the basis of a risk analysis performed in accordance with Art. 63 OLT 1 (RS 822.111), that there is no concrete threat to the health of the mother or baby or that said threat can be excluded thanks to the suitable protection measures taken. Article 4, subparagraph 4 Order on the protection of young workers (OLT 5, RS 822.115) and Article 1, letter f Order of the DEFR on dangerous works for young workers (822.115.2): Young workers undergoing initial professional training cannot work with this product (this substance/this preparation) except where envisaged in the order of professional training to achieve the training purposes and if the training plan conditions and applicable age limits are respected. Young workers who do not undergo initial professional training cannot work with this product (this substance/this preparation). Workers of either sex aged under 18 years old are considered as young.
Clean Air Ordinance (LRV, SR 814.318.142.1)	:	Not applicable
Accident Ordinance (StFV, SR 814.012)	:	Annex 1, number 4 Threshold quantity: 20000 kg
VOC Ordinance (VOCV, SR 814.018)	:	0 %

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

SECTION 16: Other information

Abbreviations and acronyms:	
ADN	European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
ADR	European Agreement concerning the International Carriage of Dangerous Goods by Road
ATE	Acute Toxicity Estimate
BLV	Biological limit value
CAS-No.	Chemical Abstract Service number
CLP	Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008
DMEL	Derived Minimal Effect level
DNEL	Derived-No Effect Level
EC50	Median effective concentration
EC-No.	European Community number
EN	European Standard
IATA	International Air Transport Association
IMDG	International Maritime Dangerous Goods
LC50	Median lethal concentration
LD50	Median lethal dose
LOAEL	Lowest Observed Adverse Effect Level
NOAEC	No-Observed Adverse Effect Concentration
NOAEL	No-Observed Adverse Effect Level
NOEC	No-Observed Effect Concentration
OEL	Occupational Exposure Limit

Abbreviations and acronyms:	
PBT	Persistent Bioaccumulative Toxic
PNEC	Predicted No-Effect Concentration
REACH	Registration, Evaluation, Authorisation and Restriction of Chemicals Regulation (EC) No 1907/2006
RID	Regulations concerning the International Carriage of Dangerous Goods by Rail
SDS	Safety Data Sheet
vPvB	Very Persistent and Very Bioaccumulative
WGK	Water Hazard Class

Full text of H- and EUH-statements:	
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
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.
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1, Sub-Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1, Sub-Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Respiratory tract irritation

Classification and procedure used to derive the classification for mixtures according to Regulation (EC) 1272/2008 [CLP]:		
Met. Corr. 1	H290	Calculation method
Skin Corr. 1	H314	On basis of test data
Eye Dam. 1	H318	On basis of test data
STOT SE 3	H335	Calculation method

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should therefore not be construed as guaranteeing any specific property of the product.