SAFETY DATA SHEET

HANAOKA SOLUÇÕES QUÍMICAS

Em conformidade com NBR 14725

Product: Hydrochloric Acid 32-33%

1 – IDENTIFICATION OF THE PRODUCT AND OF THE COMPANY

Product name (commercial name):	Hydrochloric Acid 32-33%
Relevant Identified uses of the substance or mixture	Laboratory chemicals; manufacture of substances;
Uses advised against	Not for food, drug, pesticide or biocidal product;
Company:	HANAOKA SOLUÇÕES QUÍMICAS
Address:	Rua Balão Mágico, 835, Bairro Rio Cotia CEP: 06715-780, Cotia - SP - BR
Telephone:	(11) 4615-9520
Emergency telephone number	0800 777 8007 ECORESPONDER - 24 HORAS
E-mail:	contato@hanaoka.com.br

2 – HAZARDS IDENTIFICATION

Classification of the substance or mixture:	H290 Category 1 Corrosive to metals H314 Category 1B Causes severe skin burns and eye damage H335 Specific toxic organ toxicity – single exposure (Category 3), Respiratory system

Classification of the substance or mixture: Classification according to GHS Regulation NBR 14725

Other hazards that do not result in classification:	None.

Label elements
Labelling according Regulation (EC) No 1272/2008

Pictograms:

Signal word:	DANGER
Hazard statements:	H290 May be corrosive to metals. H314 Causes severe skin burns and eye damage. H335 May cause respiratory irritayion.
Precautionary statements:	P234 Keep only in original packaging. P261 Avoid breathing dust/fume/gas/mist/vapors/spray. P271 Use only outdoors or in a well-ventilated area. P280 Wear protective gloves/protective clothing/ eye protection/ face protection

P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/ shower
P304 + P340 + P353 IF INHALED: Remove the person to fresh air and keep comfortable for breathing. Immediately call A POISON CENTER/ doctor.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Supplemental Hazard Statements: None

Other hazards: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vBvP) at levels of 0.1% or higher.

3 – COMPOSITION/ INFORMATION ON INGREDIENTS

Chemical name Composition:	Hydrochloric acid hydrochloric Acid: 32-33%; Water: 68-67%
Synonim:	Muriatic acid.
CAS:	Hydrochloric Acid 7647-01-0
Impurities that contribute to hazard:	None.

4 – FIRST AID MEASURES

If inhaled:	If breathed in, remove person into fresh air. If not breathing, give artificial respiration. Consult a physician.
In case of skin contact:	Take off contaminated clothing and shoes immediately. Wash off with soap and plenty of water. Consult a physician.
In case of eye contact:	Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician. Remove contact lenses.
If swallow	Do NOT induce vomiting. Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.
Most important symptoms and effects, both acute and delayed	Blindness risk! Irritation and corrosion; Coughing, superficial breathing; Nausea, vomiting, diarrhea, pain
Notes to the doctor	No data available

5 – FIREFIGHTING MEASURES

Extinguishing media:	Suitable: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Non suitable: No limitation of extinguishing agents is given to this substance.

Special hazards arising from the substance or mixture:
Hydrogen chloride gas
Not combustible
Ambient fire may liberate hazardous vapors.

Advice for firefighters	Wear self-contained breathing apparatus for firefighting if necessary.

6 – ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

	Wear respiratory protection. Avoid breathing vapors, mist or gas. Avoid substance contact. Ensure adequate ventilation. Evacuate personnel to safe areas, observe emergency procedures, consult an expert. For personal protection see section 8.
Environment precautions	Do not let product enter drains
Methods and materials for containment and cleaning up	Cover drains, bind, and pump off spills. Observe possible material restrictions. Take up with liquid-absorbent and neutralizing material. Soak up with Inert material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal. Dispose of properly. Clean up affected area.

7 – HANDLING AND STORAGE

Precautions for safe handling:	Avoid inhalation of vapor or mist. Observe label warnings. Change all contaminated clothes and soak them into water. Prevent any contact with skin. After finishing work wash hands and face thoroughly.

Conditions for safe storage, including any incompatibilities

Store in cool place. No metal containers. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully released and kept upright to prevent leakage.

8 – EXPOSURE CONTROLS/ PERSONAL PROTECTION

Control parameters

Components with workplace control parameters

Exposure controls

Appropriate engineering controls
MT- NR15 – LT: 4 ppm; 5,5 mg/m^3 (VT)
ACGIH – TLV – Ceiling: 2 ppm

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment

Eye/face protection	Tightly fitting safety goggles. Face shield (8-inch minimum). Use equipment tested and approved under appropriate government standards such as NIOSH (US) or EN 166 (EU).

Skin protection

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with the product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Full contact:
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min

Splash contat:
Material: Latex gloves
Minimum layer thickness: 0.6 mm
Break through time: 120 min

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with specific situation of anticipated use by our customers. It should not be constructed as offering an approval for any specific use scenario.

Body protection	Complete suit protecting against chemicals. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace
Respiratory protection:	Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU)

Control of environment exposure
Do not let product enter drains.

9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearence	light yellow liquid
Odour:	pungent
pH:	1 (0,1 M)
Melting point/freezing	- 30 °C.
Initial boiling point and boiling range	> 100 °C.
Flash point:	Not applicable
Evaporation rate:	No data avialblae
Flammabilility:	No data available
Upper/lower flammability or explosive limits	No data available
Vapor pressure:	227 hPa at 21.1 C; 547 hPa at 37.7 C.
Vapor density:	No data available
Relative density:	No data available
Water solubility	Soluble
Partition coeficient n-octanol/water	No data available
Auto-ignition temperature	Not applicable
Decomposition temperature	No data available
Viscosity:	kinematic: no data available Dynamic: 2,3 mPA.s at 15C.

Other safety information:
No data available

10 – STABILITY AND REACTIVITY

Reactivity:	Strong acid
Stability:	Stable under recommended standard storage conditions (room temperature)
Incompatible materials:	Bases, Amines, Alkali metals, Metals, permanganates, e.g., potassium permanganate, Fluorine, metal acetyldes, hexalithium disilicide metals.
Reacts violently with:	cyclopentane, cyclopentanone oxide, nitroaryl amines, hexalithium disilicide, phosphorus (iii) oxide, powdered metals.
Hazardous decomposition products	Hydrogen chloride gas

11 – TOXICOLOGICAL INFORMATION

Acute toxicity:	If ingested:severe burns of the mouth and throat, as well as danger of the esophagus and the stomach. If inhaled: mucosal irritations, cough, shortness of brath. Possible damages: damage of respiratory tract
Skin corrosion/ irritation	Result: Extremely corrosive and destructive to tissue
Serious eye damage/	Eyes Rabbit Result: Corrosive to eyes
Respiratory or skin sensitization:	No data available.
Carcinogenecity:	No data available
Reproductive toxicity	No data aavilable

Specific target organ toxicity – single exposure

May cause respiratory irritation.

Specific target organ Toxicity – repeated exposure	No data available
Aspiration hazard:	No data available

Additional Information
RTECS: MW4025000

12– ECOLOGICAL INFORMATION

Environment effects, behavior and impact of the product	
Ecotoxicity:	No data available
Persistence and degradability:	Not applicable to inorganic substances
Results of PBT and vPvB assesment:	This substance/ mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.
Mobility in soil:	No data available.
Other adverse effects	Acid character of the product can cause effects on the environment causing damages to organisms

13 – DISPOSAL CONSIDERATIONS

Waste treatment methods	
Produto:	Offer surplus and non-recyclable solutions to a licensed disposal company
Residue of the	Keep the residues of the product in the original packages. Treat as hazard residue.
Used package:	Do not reuse the empty packages. Treat as hazard residue.

14 – TRANSPORT INFORMATION

UN Number:	ADR/RID	1789
	IMDG	1789
	IATA	1789

Proper shipping name

ADR/RID	HYDROCHLORIC ACID
IMDG	HYDROCHLORIC ACID
IATA	HYDROCHLORIC ACID

Transport hazard classes

ADR/RID	8
IMDG	8
IATA	8

Packaging group:

ADR/RID	II
IMDG	II
IATA	II

Environmental hazards

ADR/RID	no
IMDG	Marine pollutant: no
IATA	no

Special precautions for user

No data available

15– REGULATORY INFORMATION

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

This safety datasheet complies with the requirements of (EC) N° 1907/2006 and NBR 14725-4:2014
National and local regulation

Chemical safety assessment

For this product a chemical assessment was not carried out.

16 – OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

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

Further Information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide.
The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does notrepresent any guarantee of the properties of the product. Micro-Química Produtos para LaboratóriosLtda shall not be held liable for any damage resulting from handling or from contact with the above product.

Controle de alterações:

Review:	Date	Change
02	09/10/2023	Review according to ABNT NBR 14725:2023

ACGIH - American Conference of Governmental Industrial Hygienists;
CAS - Chemical Abstracts Service;
CE_{50} - Concentração Efetiva 50%;
CL_{50} - Concentração Letal 50%;
DL_{50} - Dose Letal 50%;
IARC - International Agency for Research on Cancer;
NIOSH - National Institute for Occupational Safety and Health;
NR - Norma Regulamentadora;
ONU - Organização das Nações Unidas;
TLV - Threshold Limit Value;
TWA - Time Weighted Average.

Bibliographic references:

ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2023.

BRASIL. MINISTÉRIO DO TRABALHO E EMPREGO (MTE). Norma Regulamentadora (NR) n°15: Atividades e operações insalubres. Brasília, DF. Abr. 2022.

BRASIL. MINISTÉRIO DO TRABALHO E EMPREGO (MTE). Norma Regulamentadora (NR) n°7: Programa de controle médico de saúde ocupacional. Brasília, DF. Jan. 2022.

CONCAWE - HAZARD CLASSIFICATION AND LABELLING OF PETROLEUM SUBSTANCES IN THE EUROPEAN ECONOMIC AREA. Disponível em: <https://www.concawe.eu/>.

ECHA - EUROPEAN CHEMICAL AGENCY. Disponível em: < http://echa.europa.eu/web/guest >.

EPA - UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. Disponível em: <https://www.epa.gov/>.

GESTIS - SUBSTANCE DATABASE. Disponível em: <https://gestis-database.dguv.de/>.

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 9th rev. ed. New York: United Nations, 2021.

HSDB - HAZARDOUS SUBSTANCES DATA BANK. Disponível em: <http://pubchem.ncbi.nlm.nih.gov/ >.

IARC - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER. Disponível em: < http://monographs.iarc.fr/ENG/Classification/index.php >.

NIOSH - NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards. Disponível em: < http://www.cdc.gov/niosh/ >.

OSHA - OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION. UNITED STATES DEPARTMENT OF LABOUR. < https://www.osha.gov/chemicaldata/search >.

REACH - REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS. Commission Regulation (EC) No 1272/2008 of December 2008 amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals. Disponível em: < http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:353:0001:1355:en:PDF >.