Safety Data Sheet

According to Regulation (EC) no. 1907/2006

Product Name

HYDROCHLORIC ACID 10, 28, 32 AND 36%

1.0 Chemical product and company identification

1.1 Product Identifier

MSDS Name:	HYDROCHLORIC ACID 10, 28, 32 AND 36%
Substance name:	HYDROCHLORIC ACID
CAS No:	7647-01-0
PRODUCT CODE:	HY

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

Use of the Substance / Mixture:	At this time we do not yet have information of identified uses. They will be included in the safety data sheets when available
Recommended restrictions on use:	At this time we do not yet have information of identified uses. They will be included in the safety data sheets when available

1.3 Details of the supplier of the safety data sheet

Company Identification:
SOLUMETRICS LTD,
UNIT 1B SILEBY ROAD INDUSTRIAL ESTATE. BARROW ON SOAR, LEIC'S. LE12 8LP.

For information call.	**+44 (0)1509 815348**
For emergencies call.	**+44 (0)1509 815348**

2.0 Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) no 1272/2008

Skin Corrosion/ Irritation	Category 1 B
Serious Eye Damage/ Eye Irritation	Category 1
Specific target organ systemic toxicity (single exposure)	Category 3

Hazard Symbol / Category of Danger

Symbol	**C - Corrosive**
R-Phrases	**R34 - Causes Burns** **R37 - Irritating to respiratory system**

For the full text of the R-Phrases in this section, see Section 16.

2.2 Label Elements

Labelling according to regulation (EC) No 1272/2008

HAZARDS SYMBOLS

Signal Word:	DANGER
Hazard Statements:	H314 - Causes severe skin burns and eye damage. H335 - May cause respiratory irritation H318 - Causes serious eye damage

<u>Precautionary statements</u>

Prevention	P280 Wear Protective gloves/ protective clothing/ eye protection/ face protection
Response	P301 + P330 + P331 If swallowed: rinse mouth. Do NOT induce vomiting P301 + P312 IF SWALLOWED Call a poison center or doctor / physician if you feel unwell P305 + P351 + P338 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P261 Avoid breathing dust/funmes/gas/mist/vapors/spray P304 + P340 IF INHALED Remove victim to fresh air and keep at rest in a position comfortable for breathing
Hazardous components which must be listed on the label:	

3.0 Composition/ Information on ingredients

3.1 Substances

EC No	Component	GHSCLAS	Classification
231-595-7	**Hydrochloric Acid 7647-01-0**	Skin Corr. 1A (H314)	C;R35 T;R23

Weight %	CAS No
30-35	7647-01-0

4.0 First Aid measures

4.1 Description of first aid measures

General Advice

If Inhaled:	Remove from exposure. If breathing stops or show sign of failing, give artifical respiration. Obyain medical attention urgently.Keep warm and at rest. If there is diffuculty in breathing, give oxygen. Do not use mouth to mouth ventilation.
In Case of Skin contact:	Wash off immediately with plenty of water for at least 15minutes. Immediate medical treatment is necessary as untreated wounds from corrosion of the skin heal slowly and with difficulty
In case of eye contact:	Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Consult an eye specialist immediately. Go to an ophthalmic hospital if possible
If Swallowed:	Clean mouth with water and drink afterwards plenty of water. Never give anything by mouth to an unconscious person. Do NOT induce vomiting. Call a physician immediately.

5.0 FIRE FIGHTING MEASURES

5.1 Extinguishing media

Suitable extinguishing Media:	CO2 Dry Chemical, Dry Sand, alcohol-resistant foam
Un-Suitable extinguishing Media:	High Volume water jet

5.2 Special hazards arising from the substance or mixture

Specific hazards during fire fighting:	This product may give rise to Hazardous fumes in a fire, sulphur dioxide. Violent reaction with water generates heat and may cause an explosion. Attacks many metals liberating Hydrogen Gas. Combustion will generate - oxides of Sulphur

5.3 Advice for fire-fighters

Special protective equipment for fire-fighters:	In the event of fire, wear self-contained breathing apparatus. Wear appropriate body protection (full protective suit)
Further Information:	Collect contaminated fire extinguishing water separately. This must not be discharged into drains

6.0 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal Precautions:	Ventilate the area to dispel possible toxic decompostion fumes. Wear appropriate protective clothing. Use personal protective equipment. Keep away unprotected persons. Danger of slipping if spilled. Avoid contact with skin and eyes. Do not breathe vapours or spray mist. For personal protection see section 8
6.2 Environmental precautions:	Contain and absorb using earth, sand or other intert material. Transfer into suitable containers for recovery or disposal. Do not flush into surface water or sanitary sewer system. Avoid subsoil penetration. If the product contaminates rivers and lakes or drains inform respective authorities. If material reaches soil inform authorities responsible for such cases
6.3 Methods and materials for containment and cleaning up:	Absorb with liquid-binding material (sand, diatomite, acid binders, Universal binders) Keep in suitable, closed containers for disposal.
Further Information:	Advise Authorities if spillage has entered water course or sewer or has contaminated soil or vegetaion.

7.0 Handling and storage
7.1 Precautions for safe handling

Advice on safe handling:	Keep containers tightly closed. Use personal Protective equipment. Provide sufficient air exchange and/ or exhaust in work rooms. Avoid formation of aerosol. In case of mist, spray or aerosol exposure wear suitable personal respiratory protection and protective suit. Avoid contact with the skin and the eyes. Avoid inhalation of vapour or mist. Emergency eye wash fountains and emergency showers should be available in the immediate vicinity.
Hygiene measures:	Keep away from food, drink and animal feeding stuffs. Smoking, eating and drinking should be prohibited in the application area. Wash hands before breaks and at the end of workday. Take off all contaminated clothing immediately. Avoid contact with the skin and the eyes. Do not breathe vapours or spray mist.

7.2 Conditions for safe storage, including any incompatibilities

Requirements for storage area containers:	Storage area should be: well ventilated Stock tanks should be bunded and consideration should be given to vent system with a water scubber to dispel fumes. Tanks should be equipped with airflow pipes directed into the base of the bund with a frost-protected seal to contain fumes. Suitable storage materials are:- polyethylene. PVC, Rubber lined tanks. Do not store in Stainless steel, metal drums. Store below 15C and keep away from moisture
Advice on Protection Against fire and explosion:	The product is not flammable. Normal measures for preventive fire protection.
Further information on storage conditions:	Keep tightly closed in a dry and cool place. Keep in well ventilated place.
Advice on common storage:	Keep away from food, drink and animal feeding stuffs. Do not store together with acids and ammonium salts. Materials to avoid: Organic peroxides.
German storage class:	8B: Non-combustible substances, corrosive

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8.0 Exposure controls/ personal protection

	Component Hydrochloric Acid
European Union	NA
The United Kingdom	

France	VLCT: 7.6mg/m3 - VLCT: 5ppm
Belgium	STEL: 10ppm - STEL: 15mg/m3 - TWA: 5ppm - TWA: 8mg/m3
Spain	VLA-EC: 10 ppm - VLA-EC: 15mg/m3 - VLA-ED: 5 ppm - VLA-ED: 7.6mg/m3
Italy	TWA: 8mg/m3 - TWA: 5ppm - STEL:15mg/m3 - STEL:10ppm
Portugal	Celing: 2ppm
The Netherlands	STEL: 15mg/m3 - TWA: 8mg/m3
Finland	STEL: 5ppm - STEL:7.6 mg/m3
Denmark	Celing:7mg/m3 - STEL:7.6mg/m3
Austria	STEL:15mg/m3 - STEL:10ppm - MAK:5ppm - MAK:8mg/m3
Switzerland	STEL:6mg/m3 - STEL: 4ppm - MAK:3.0ppm - MAK:2mg/m3
Poland	NDSCh:10mg/m3 - NDS:5mg/m3
Norway	Ceiling:5ppm - Celing:7mg/m3
Ireland	TWA:7mg/3 - TWA:5ppm - STEL:10ppm - STEL:14mg/m3

Derived No Effect Level (DNEL)	No Information available
Predicted No Effect Concentration (PNEC)	No Information available

Exposure controls

Engineering Measures	Use only under a chemical fume hood Ensure that eyewash stations and safety showers are close to work station location
Personal Protective Equipment	
Eye Protection	Safety glasses with side shields
Hand Protection	Protective Gloves
Skin and body protection	Wear appropriate protective gloves and clothing to prevent skin exposure
Respiratory Protection	When workers are facing concentrations above exposure limit they must use appropriate certified resirators
Hygiene Measures	Handle in accordance with good industrial hygiene and safety practice
Enviromental exposure controls	No Information available

9.0 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Form	Liquid
Colour	Colourless to Yellow
Odour	Pungent Characteristic
Odour Threshold	
PH	<1 (Acidic) 20C
Vapor Pressure	125 mbar @ 20C
Vapor Density	1.26
Viscosity	1.9 mPa.s at 15C
Boiling Point/Range	57C / 134.6F @ 760 mmHg
Melting Point/Range	-35C/-31F
Decompostion Temperature	1782C
Flash Point	No information available
Water solubility	miscible with water: 823g/l (0C) ; 561 g/l (60C)
Specific Gravity	1.16
Molecular Formula	Cl H
Molecular Weight	36.45

10.0 Stability and reactivity	This product is stable
10.1 Reactivity	
10.2 Chemical stability	

10.3 Possibility of hazardous reactions

Hazardous reaction:	None under normal processing
10.4 Conditions to avoid	High Temperatures - Incompatible products
10.5 Incompatible materials	
Materials to avoid:	Strong Oxidizing agents Reducing Agents Bases Metals
10.6 Hazardous decomposition products	Carbon monoxide CO Carbon Dioxide CO2 Hydroden Chloride Gas

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11.0 Toxicological Information

11.1 Information on toxicological effects

Acute Toxicity

Product Information	Product does not present an acute toxicity hazard based on known or supplied information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Hydrochloric Acid	**700 mg/kg (Rat)**	5010 mg/kg (Rabbit)	3124 ppm (Rat) 1h

Chronic Toxicity		
The table below indicates wheather each agency has listed any ingredient as a carcinogen		
	IARC	UK
Hydrochloric Acid	**Group 3**	

SENSITIZATION	NO DATA AVAILABLE
MUTEGENIC EFFECTS	Mutagenic effects have occured in experimental animals
REPRODUCTION EFFECTS	Experiments have shown reproductive toxicity effects on laboratory animals
DEVELOPMENT EFFECTS	NO DATA AVAILABLE
TERATOGENICITY	Teratogenic effects have occurred in experimental animals
TARGET ORGANS	Skin respiratory system eyes gastrointestinal (GI)
OTHER ADVERSE EFFECTS	SEE ACTUAL ENTRY IN RTECS FOE COMPLETE INFORMATION
ENDOCRINE DISRUPTOR INFORMATION	None known

12.0 Ecological Information

12.1 Toxicity

Component	Hydrochloric Acid
FREASHWATER ALGAE	NA
FREASHWATER FISH	282mg/L LC50 96h
MICROTOX	NA
WATER FLEA	NA

Persistence and degradability	**No information available**
Bioaccumulative Potential	**No information available**
Mobility in soil	**No information available**
Results of PBT and vPvB assessment	
Other adverse effects	**No information available**

13.0 Disposal considerations

13.1 Waste treatment methods

Product	Disposal together with normal waste is not allowed. Special disposal required to local regulations. Do not let product enter drains. Contact waste disposal services.
Contaminated Packaging	Empty contaminated packagings thoroughly. They can be recycled after thorough and proper cleaning. Packagings that cannot be cleaned are to be disposed of in the same manner as the product.
European Waste Catalogue Number	No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

14.0 Transport information

14.1 UN number	1789

IMDG/IMO

UN Number	1789
Hazard Class	8
Subsidiary Hazard Class	8
Packing group	II

ADR

UN Number	1789
Hazard Class	8
Subsidiary Hazard Class	8
Packing group	II

IATA

UN Number	1789
Hazard Class	8
Subsidiary Hazard Class	8
Packing group	II

15.0 Regulatory Information

	Component **Hydrochloric Acid**
EINECS	231-595-7
ELINCS	-
NLP	
TSCA	T
DSL	X
NDSL	-
PICCS	X
ENCS	X
CHINA	X
AICS	X
KECL	KE-20189X

TSCA	United States Toxic Substance Control Act 8 (b) Inventory
EINECS/ELINCS	European Inventory Lists
DSL/NDSL	Canadian Domestic Substances list/ Non-Domestic Substance list
PICCS	Philippines Inventory of chemicals and chemical substances
ENCS	Japan Existing and New chemical substances
CHINA	China Inventory of existing chemical substances
AICS	Inventory of chemical substances
KECL	Existing and evaluated chemical substances

Chemical Safety Assessment

16.0 Other information

Full text of R-Phrases referred to under section 2 and 3

R34	Causes severe burns
R37	Irritating to respiratory system

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

H314	Causes severe skin burns and eye damage
H335	May cause respiratory irritation
H318	Causes serious eye damage

Other information

This information is based upon Solumetrics Ltd Knowledge of this product at the time this Safety Data Sheet was prepared. It is given in good faith and no warranty is implied. The information is belived to be correct but does not purport to be all inclusive and shall be used only as a guide. The user must satisfy him/her self as to the purpose this product is put to and the possible change in classification should this product be mixed or formulated with other compounds