SAFETY DATA SHEET

According to 1907/2006/EC, Article 31

	Revision number: 1	Revision date: 10/03/2018
SECTION 1: Identification of the	e substance/mixture and of	the company/undertaking
.1 Product identifiers		
Product name:	Hydrochloric Acid (1mol/L)	
Product code:	H1202	
.2 Relevant identified uses of the s Identified uses:	ubstance or mixture and uses a Reagents.	advised against
2 Details of the sumplion of the act	atu data akaat	
.3 Details of the supplier of the sat Supplier:	ety data sheet	
TCI EUROPE N.V.		
Boerenveldseweg 6		
Haven 1063		
B-2070 Zwijndrecht		
Telephone: +32(0)3 735 07		
E-mail: sales-eu@tcichemi	cals.com	
.4 Emergency telephone number:	+32(0)70 245 245	
SECTION 2: Hazards identificat	ion	
.1 Classification of the substance	or mixture	Colorent 4
Corrosive to metals		Category 1
Skin corrosion/irritation		Category 1C
O and a second state of a second state of the		Cata name 1
Serious eye damage/eye irritati Specific target organ toxicity - 3 .2 Label elements Pictograms or hazard symbols		Category 1 Respiratory tract irritation
Specific target organ toxicity - : .2 Label elements		5 <i>i</i>
Specific target organ toxicity - : .2 Label elements		<b>a</b> ,
Specific target organ toxicity - 3 2.2 Label elements Pictograms or hazard symbols	Single exposure [Category 3] Danger H290-May be corrosive to r	Respiratory tract irritation
Specific target organ toxicity - 3 2.2 Label elements Pictograms or hazard symbols Signal word	Single exposure [Category 3] Danger H290-May be corrosive to r H314-Causes severe skin b	Respiratory tract irritation metals. burns and eye damage.
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Single exposure [Category 3] Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator	Respiratory tract irritation metals. burns and eye damage. y irritation.
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists.
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection.
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glow P301+P330+P331+P310-IF POISON CENTER or doctor	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a or.
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin t H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310+F	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. = SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a or. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Specific target organ toxicity - 3 22 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin t H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310+F	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. = SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a or.
Specific target organ toxicity - 3 2.2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin t H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310+F Rinse skin with water or sho clothing before reuse.	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. = SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a or. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing.
Specific target organ toxicity - 3 2.2 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin t H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310+F Rinse skin with water or sho clothing before reuse.	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a or. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. ower. Immediately call a POISON CENTER or doctor. Wash contaminated LED: Remove person to fresh air and keep comfortable for breathing.
Specific target organ toxicity - 3 22 Label elements Pictograms or hazard symbols Signal word Hazard statements	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310-IF Rinse skin with water or shi clothing before reuse. P304+P340+P310-IF INHA Immediately call a POISON P305+P351+P338+P310-IF	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a pr. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. ower. Immediately call a POISON CENTER or doctor. Wash contaminated LED: Remove person to fresh air and keep comfortable for breathing. I CENTER or doctor. F IN EYES: Rinse cautiously with water for several minutes. Remove conta
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements Precautionary statements	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310-IF Rinse skin with water or shi clothing before reuse. P304+P340+P310-IF INHA Immediately call a POISON P305+P351+P338+P310-IF	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a pr. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. ower. Immediately call a POISON CENTER or doctor. Wash contaminated LED: Remove person to fresh air and keep comfortable for breathing. I CENTER or doctor.
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements Precautionary statements 3 Other hazards	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310-IF Rinse skin with water or shi clothing before reuse. P304+P340+P310-IF INHA Immediately call a POISON P305+P351+P338+P310-IF lenses, if present and easy	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a pr. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. ower. Immediately call a POISON CENTER or doctor. Wash contaminated LED: Remove person to fresh air and keep comfortable for breathing. I CENTER or doctor. F IN EYES: Rinse cautiously with water for several minutes. Remove conta
Specific target organ toxicity - 3 2 Label elements Pictograms or hazard symbols Signal word Hazard statements Precautionary statements 3 Other hazards Results of PBT and vPvB assess	Danger H290-May be corrosive to r H314-Causes severe skin b H335-May cause respirator P260-Do not breathe dusts P280-Wear protective glove P301+P330+P331+P310-IF POISON CENTER or docto P303+P361+P353+P310-IF Rinse skin with water or shi clothing before reuse. P304+P340+P310-IF INHA Immediately call a POISON P305+P351+P338+P310-IF lenses, if present and easy	Respiratory tract irritation metals. burns and eye damage. y irritation. or mists. es, protective clothing, face protection. F SWALLOWED: Rinse mouth. Do NOT induce vomiting. Immediately call a pr. P363-IF ON SKIN (or hair): Take off immediately all contaminated clothing. ower. Immediately call a POISON CENTER or doctor. Wash contaminated LED: Remove person to fresh air and keep comfortable for breathing. I CENTER or doctor. F IN EYES: Rinse cautiously with water for several minutes. Remove conta
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SECTION 3:	Compo	osition/in	formation	on in	ngredients	
3.2 Mixtures						

3.2 MIXtures	
Components:	Hydrochloric Acid (1mol/L)
Percent:	
CAS RN:	7647-01-0
EC-No:	231-595-7
Chemical Formula:	HCI

SECTION 4: First aid measures	
4.1 Description of first aid measures	
Inhalation:	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
Skin contact:	Remove/Take off immediately all contaminated clothing. Gently wash with plenty of soap and water. Immediately call a POISON CENTER or doctor/physician.
Eye contact:	Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.Immediately call a POISON CENTER or doctor/physician.
Ingestion:	Immediately call a POISON CENTER or doctor/physician. Rinse mouth. Do NOT induce vomiting.
Protection of first-aiders:	A rescuer should wear personal protective equipment, such as rubber gloves and air-tight goggles.

4.2 Most important symptoms and effects, both acute and delayed No data available

4.3 Indication of any immediate medical attention and special treatment needed No data available

SECTION 5: Firefighting measures	
5.1 Extinguishing media Suitable extinguishing media:	Dry chemical, foam, water spray, carbon dioxide.
5.2 Special hazards arising from the substance or mixture	Take care as it may decompose upon combustion or in high temperatures to generate poisonous fume. Hydrogen chloride
5.3 Advice for firefighters	Fire-extinguishing work is done from the windward and the suitable fire-extinguishing method according to the surrounding situation is used. Uninvolved persons should evacuate to a safe place. In case of fire in the surroundings: Remove movable containers if safe to do so. When extinguishing fire, be sure to wear personal protective equipment
SECTION 6: Accidental release mea	asures
6.1 Personal precautions, protective equipment and emergency procedures	Use personal protective equipment. Keep people away from and upwind of spill/leak. Ensure adequate ventilation. Entry to non-involved personnel should be controlled around the leakage area by roping off, etc
6.2 Environmental precautions	Prevent product from entering drains
6.3 Methods and materials for containment and cleaning up	Absorb spilled material in a suitable absorbent (e.g. rag, dry sand, earth, saw-dust). In case of large amount of spillage, contain a spill by bunding. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.
6.4 Reference to other sections	For disposal see section 13.
SECTION 7: Handling and storage	
7.1 Precautions for safe handling	Handling is performed in a well ventilated place. Wear suitable protective equipment. Prevent generation of vapour or mist. Wash hands and face thoroughly after handling. Use a closed system if possible. Use a ventilation, local exhaust if vapour or aerosol will be generated. Avoid contact with skin, eyes and clothing. Use corrosive resistant equipment.
7.2 Conditions for safe storage, including any incompatibilities	Keep container tightly closed. Store in a cool, dark and well-ventilated place. Store locked up. Store away from incompatible materials such as oxidizing agents.
7.3 Specific end use(s)	No further relevant information available.

SECTION 8: Exposure controls/personal protection		
8.1 Control parameters JSOH OELs(CL):	2 ppm	
8.2 Exposure controls	Install a closed system or local exhaust. Also install safety shower and eye bath.	
Respiratory protection:	Half or full facepiece respirator, self-contained breathing apparatus(SCBA), supplied air respirator, etc. Use respirators approved under appropriate government standards and follow local and national regulations.	
Hand protection:	Impervious gloves.	
Eye protection: Safety goggles. A face-shield, if the situation requires.		
Skin and body protection:	Impervious protective clothing. Protective boots, if the situation requires.	

SECTION 9: Physical and chemical properties			
9.1 Information on basic physical and chemical properties			
Physical state (20°C):	Liquid		
Form:	Clear		
Colour:	Colorless		
Odour:	No data available		
Odour threshold:	0.77 ppm		
pH:	No data available		
Melting point/freezing point:	No data available		
Boiling point/range:	No data available		
Flash point:	No data available		
Evaporation rate(Butyl Acetate=1):	No data available		
Flammability(solid, gas):	No data available		
Flammability or explosive limits:			
Lower:	No data available		
Upper:	No data available		
Vapour pressure:	No data available.		
Vapour density:	No data available		
Relative density:	1.02		
Solubility(ies):			
[Water]	No data available		
[Other solvents]	No data available		
Partition coefficient: n-octanol/water:	No data available		
Autoignition temperature:	No data available		
Decomposition temperature:	No data available		
Dynamic Viscosity:	No data available		
Kinematic viscosity:	No data available		
9.2 Other safety information	No data available		

10 1 Reactivity	N
SECTION 10: S	ility and reactivity

10.1 Reactivity	No data available
10.2 Chemical stability	Stable under proper conditions.
10.3 Possibility of hazardous reactions	No special reactivity has been reported.
10.4 Conditions to avoid	No data available
10.5 Incompatible materials	Bases, Metals, Amines
10.6 Hazardous decomposition products	s Hydrogen chloride

## SECTION 11: Toxicological information

11.1 Information on toxicological effects		
Acute Toxicity:	No data available	
Skin corrosion/irritation:	No data available	
Serious eye damage/irritation:	No data available	
Respiratory or skin sensitization:	No data available	
Germ cell mutagenicity:	No data available	
Carcinogenicity:		
IARC =	Group 3 (Not classifiable as carcinogenic to humans)	
NTP =	No data available	
Reproductive toxicity:	No data available	
STOT-single exposure:	No data available	
STOT-repeated exposure:	No data available	
Aspiration hazard:	No data available	
RTECS Number:	MW4025000	

SECTION 12: Ecological information
12.1 Toxicity

Fish: Crustacea:	No data available No data available
Algae:	No data available
12.2 Persistence and degradability	No data available
12.3 Bioaccumulative potential	No data available
12.4 Mobility in soil	
Log Pow:	No data available
Soil adsorption (Koc):	No data available
Henry's Law (PaM ³/mol):	No data available
12.5 Results of PBT and vPvB assessm	ient
PBT:	Not applicable
vPvB:	Not applicable
12.6 Other adverse effects	No data available

SECTION 13: Disposal considerations

## 13.1 Waste treatment methods

Recycle to process, if possible. Consult your local regional authorities. Observe all federal, state and local regulations when disposing of the substance.

SECTION 14: Transport information		
14.1 UN number	1789	
14.2 UN proper shipping name		
ADR/RID	Hydrochloric acid	
IMDG/IMO	Hydrochloric acid	
ICAO/IATA	Hydrochloric acid	
14.3 Transport hazard class(es)		
ADR/RID	8: Corrosive	
IMDG/IMO	8: Corrosive	
ICAO/IATA	8: Corrosive	
14.4 Packaging group		
ADR/RID	111	
IMDG/IMO	111	
ICAO/IATA	III	
14.5 Environmental hazards		
Marine pollutant	-	
14.6 Special precautions for user	No data available	

SECTION 15: Regulatory information	
15.1 Safety, health and environmental regulations/legislation spec	cific for the substance or mixture
Water Hazard Classes (WGK) :	Class 1 - Low hazard to waters
Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No.1907/2006	Not listed
15.2 Chemical safety assessment	A chemical safety assessment has not been carried out.
SECTION 16: Other information	

Prepared by:	TCI EUROPE N.V.
Issue date:	10/03/2018
This SDS was prepared sinc	ely on the basis of the information we could obtained, however, any warranty shall not be given regarding the data

contained and the assessment of hazards and toxicity. Prior to use, please investigate not only the hazards and toxicity information but also the laws and regulations of the organization, area and country where the products are to be used, which shall be given the first priority. The products are supposed to be used promptly after purchase in consideration of safety. Some new information or amendments may be added afterwards. If the products are to be used far behind the expected time of use or you have any questions, please feel free to contact us. The stated cautions are for normal handling only. In case of special handling, sufficient care should be taken, in addition to the safety measures suitable for the situation. All chemical products should be treated with the recognition of "having unknown hazards and toxicity", which differ greatly depending on the conditions and handling when in use and/or the conditions and duration of storage. The products must be handled only by those who are familiar with specialized knowledge and have experience or under the guidance of those specialists throughout use from opening to storage and disposal. Safe usage conditions shall be set up on each user's own responsibility.

End of Safety Data Sheet