

## Safety data sheet according to Regulation (EC) No. 1907/2006

### SECTION 1. Identification of the substance/mixture and of the company/undertaking.

#### 1.1. Product identifier.

Code.	HI700636
Product name.	pH and ORP Electrode Cleaning Solution
Chemical name and synonym.	ACETIC ACID 0.30%
INDEX number.	607-002-00-6
EC number.	200-580-7
CAS number.	64-19-7
Registration Number.	01-2119475328-30

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

Intended use.	pH and ORP Electrode Wine Stain Cleaning Solution.
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#### 1.3. Details of the supplier of the safety data sheet.

Name.	Hanna Instruments S.R.L.
Full address.	str. Hanna Nr 1
District and Country.	457260 loc. Nusfalau (Salaj) Romania
Tel.	(+40) 260607700
Fax.	(+40) 260607700

e-mail address of the competent person.  
responsible for the Safety Data Sheet.

msds@hanna.ro

#### 1.4. Emergency telephone number.

For urgent inquiries refer to.	Emergency Number - International: +(1)-703-527-3887 - UK, London: +(44)-870-8200418 - CHEMTREC 24 hours/365 days
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### SECTION 2. Hazards identification.

#### 2.1. Classification of the substance or mixture.

The product is not classified as hazardous pursuant to the provisions set forth in EC Regulation 1272/2008 (CLP). However, since the product contains hazardous substances in concentrations such as to be declared in section no. 3, it requires a safety data sheet with appropriate information, compliant to EC Regulation 1907/2006 and subsequent amendments.

Hazard classification and indication: --

#### 2.2. Label elements.

Hazard labelling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

Hazard pictograms: --

Signal words: --

Hazard statements:  
EUH210 Safety data sheet available on request.

Precautionary statements: --

INDEX. 607-002-00-6

This product is not subject to hazard labeling pursuant to EC Regulation 1272/2008 (CLP) and subsequent amendments and supplements.

#### 2.3. Other hazards.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### SECTION 3. Composition/information on ingredients.

#### 3.1. Substances.

##### Contains:

Identification.	x = Conc. %.	Classification 1272/2008 (CLP).
<b>ACETIC ACID</b>		
CAS. 64-19-7	0,3	Fam. Liq. 3 H226, Met. Corr. 1 H290, Skin Corr. 1A H314, Note B
EC. 200-580-7		
INDEX. 607-002-00-6		
Reg. no. 01-2119475328-30		

The full wording of hazard (H) phrases is given in section 16 of the sheet.

#### 3.2. Mixtures.

Information not relevant.

### SECTION 4. First aid measures.

#### 4.1. Description of first aid measures.

Not specifically necessary. Observance of good industrial hygiene is recommended.

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

No episodes of damage to health ascribable to the product have been reported.

##### ACETIC ACID

ACETIC ACID 100%: Irritation and corrosion, bronchitis, Shortness of breath, gastric spasms, Nausea, Vomiting, Circulatory collapse, shock, Risk of corneal clouding. Risk of blindness!.

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

Information not available.

### SECTION 5. Firefighting measures.

#### 5.1. Extinguishing media.

##### SUITABLE EXTINGUISHING EQUIPMENT

The extinguishing equipment should be of the conventional kind: carbon dioxide, foam, powder and water spray.

##### UNSUITABLE EXTINGUISHING EQUIPMENT

None in particular.

#### 5.2. Special hazards arising from the substance or mixture.

##### HAZARDS CAUSED BY EXPOSURE IN THE EVENT OF FIRE

Do not breathe combustion products.

##### ACETIC ACID

ACETIC ACID 100%: Combustible. Vapours are heavier than air and may spread along floors. Forms explosive mixtures with air at elevated temperatures. Development of hazardous combustion gases or vapours possible in the event of fire. Fire may cause evolution of: Acetic acid vapours.

#### 5.3. Advice for firefighters.

##### GENERAL INFORMATION

Use jets of water to cool the containers to prevent product decomposition and the development of substances potentially hazardous for health. Always wear full fire prevention gear. Collect extinguishing water to prevent it from draining into the sewer system. Dispose of contaminated water used for extinction and the remains of the fire according to applicable regulations.

##### SPECIAL PROTECTIVE EQUIPMENT FOR FIRE-FIGHTERS

Normal fire fighting clothing i.e. fire kit (BS EN 469), gloves (BS EN 659) and boots (HO specification A29 and A30) in combination with self-contained open circuit positive pressure compressed air breathing apparatus (BS EN 137).

### SECTION 6. Accidental release measures.

#### 6.1. Personal precautions, protective equipment and emergency procedures.

Block the leakage if there is no hazard.

Wear suitable protective equipment (including personal protective equipment referred to under Section 8 of the safety data sheet) to prevent any contamination of skin, eyes and personal clothing. These indications apply for both processing staff and those involved in emergency procedures.

### SECTION 6. Accidental release measures. ... / >>

#### 6.2. Environmental precautions.

The product must not penetrate into the sewer system or come into contact with surface water or ground water.

#### 6.3. Methods and material for containment and cleaning up.

Collect the leaked product into a suitable container. If the product is flammable, use explosion-proof equipment. Evaluate the compatibility of the container to be used, by checking section 10. Absorb the remainder with inert absorbent material.

Make sure the leakage site is well aired. Contaminated material should be disposed of in compliance with the provisions set forth in point 13.

#### 6.4. Reference to other sections.

Any information on personal protection and disposal is given in sections 8 and 13.

### SECTION 7. Handling and storage.

#### 7.1. Precautions for safe handling.

Before handling the product, consult all the other sections of this material safety data sheet. Avoid leakage of the product into the environment. Do not eat, drink or smoke during use.

#### 7.2. Conditions for safe storage, including any incompatibilities.

Keep the product in clearly labelled containers. Keep containers away from any incompatible materials, see section 10 for details.

#### 7.3. Specific end use(s).

Information not available.

### SECTION 8. Exposure controls/personal protection.

#### 8.1. Control parameters.

Regulatory References:

AUS	Österreich	Grenzwerteverordnung 2011 - GKV 2011
BEL	Belgique	AR du 11/3/2002. La liste est mise à jour pour 2010
CHE	Suisse / Schweiz	Valeurs limites d'exposition aux postes de travail 2014. / Grenzwerte am Arbeitsplatz
CZE	Česká Republika	Nařízení vlády č. 361/2007 Sb. kterým se stanoví podmínky ochrany zdraví při práci
DEU	Deutschland	MAK-und BAT-Werte-Liste 2012
DNK	Danmark	Graensevaerdier per stoffer og materialer
ESP	España	INSHT - Límites de exposición profesional para agentes químicos en España 2015
EST	Eesti	Töökeskkonna keemiliste ohutegurite piirnormid 1. Vastu võetud 18.09.2001 nr 293 RT I 2001, 77, 460 - Redaktsiooni jõustumise kp: 01.01.2008
FIN	Suomi	HTP-arvot 2012. Haitallisiksi tunnetut pitoisuudet - Sosiaali- ja terveystieteiden tutkimuskeskus julkaisuja 2012:5
FRA	France	JORF n°0109 du 10 mai 2012 page 8773 texte n° 102
GRC	Ελλάδα	ΕΦΗΜΕΡΙΣ ΤΗΣ ΚΥΒΕΡΝΗΣΕΩΣ - ΤΕΥΧΟΣ ΠΡΩΤΟ Αρ. Φύλλου 19 - 9 Φεβρουαρίου 2012
HRV	Hrvatska	NN13/09 - Ministarstvo gospodarstva, rada i poduzetništva
HUN	Magyarország	50/2011. (XII. 22.) NGM rendelet a munkahelyek kémiai biztonságáról
IRL	Éire	Code of Practice Chemical Agent Regulations 2011
LTU	Lietuva	DĒL LIETUVOS HIGIENOS NORMOS HN 23:2007 CHEMINIŲ MEDŽIAGŲ 2007 m. spalio 15 d. Nr. V-827/A1-287
NLD	Nederland	Databank of the social and Economic Council of Netherlands (SER) Values, AF 2011:18
NOR	Norge	Veiledning om Administrative normer for forurensning i arbeidsatmosfære
POL	Polska	ROZPORZĄDZENIE MINISTRA PRACY I POLITYKI SPOŁECZNEJ z dnia 16 grudnia 2011r
ROU	România	Monitorul Oficial al României 44; 2012-01-19
SVK	Slovensko	NARIADENIE VLÁDY Slovenskej republiky z 20. júna 2007
SVN	Slovenija	Uradni list Republike Slovenije 15. 6. 2007
SWE	Sverige	Occupational Exposure Limit Values, AF 2011:18
EU	OEL EU	Directive 2009/161/EU; Directive 2006/15/EC; Directive 2004/37/EC; Directive 2000/39/EC.
	TLV-ACGIH	ACGIH 2016

### SECTION 8. Exposure controls/personal protection. ... / >>

#### ACETIC ACID

##### Threshold Limit Value.

Type	Country	TWA/8h		STEL/15min	
		mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>	ppm
MAK	AUS	25	10	50	20
VLEP	BEL	25	10	38	15
VEL	CHE	25	10	50	20
MAK	CHE	25	10	50	20
TLV	CZE	25		35	
MAK	DEU	25	10		
TLV	DNK	25	10	50	20
VLA	ESP	25	10	37	15
TLV	EST	25	10	25	10
HTP	FIN	13	5	25	10
VLEP	FRA			25	10
TLV	GRC	25	10	37	15
GVI	HRV	25	10		
AK	HUN	25		25	
OEL	IRL	25	10	37	15
RD	LTU	25	10		
MAC	NLD		10		
TLV	NOR	25	10		
NDS	POL	15		30	
TLV	ROU	25	10		
NPHV	SVK	25	10		
MV	SVN	25	10		
MAK	SWE	13	5	25	10
OEL	EU	25	10		
TLV-ACGIH			10		15

##### Predicted no-effect concentration - PNEC.

Normal value in fresh water	3,058	mg/l
Normal value in marine water	0,3058	mg/l
Normal value for fresh water sediment	11,36	mg/kg
Normal value for marine water sediment	1,136	mg/kg
Normal value for water, intermittent release	30,58	mg/l
Normal value of STP microorganisms	85	mg/l

##### Health - Derived no-effect level - DNEL / DMEL

Route of exposure	Effects on consumers.				Effects on workers			
	Acute local	Acute systemic	Chronic local	Chronic systemic	Acute local	Acute systemic	Chronic local	Chronic systemic
Inhalation.	25 mg/m <sup>3</sup>	VND	25 mg/m <sup>3</sup>	VND	25 mg/m <sup>3</sup>	VND	25 mg/m <sup>3</sup>	VND

##### Legend:

(C) = CEILING ; INHAL = Inhalable Fraction ; RESP = Respirable Fraction ; THORA = Thoracic Fraction.  
VND = hazard identified but no DNEL/PNEC available ; NEA = no exposure expected ; NPI = no hazard identified.

##### ACETIC ACID

Methods for measurement of the workplace atmosphere have to correspond to the requirements of norms UNI EN 482 and UNI EN 689.

### 8.2. Exposure controls.

As the use of adequate technical equipment must always take priority over personal protective equipment, make sure that the workplace is well aired through effective local aspiration. Personal protective equipment must be CE marked, showing that it complies with applicable standards.

#### HAND PROTECTION

Protect hands with category III work gloves (see standard EN 374).

The following should be considered when choosing work glove material: compatibility, degradation, failure time and permeability.

The work gloves' resistance to chemical agents should be checked before use, as it can be unpredictable. The gloves' wear time depends on the duration and type of use.

#### SKIN PROTECTION

Wear category I professional long-sleeved overalls and safety footwear (see Directive 89/686/EEC and standard EN ISO 20344). Wash body with soap and water after removing protective clothing.

#### EYE PROTECTION

Wear airtight protective goggles (see standard EN 166).

#### RESPIRATORY PROTECTION

If the threshold value (e.g. TLV-TWA) is exceeded for the substance or one of the substances present in the product, use a mask with a type B filter whose class (1, 2 or 3) must be chosen according to the limit of use concentration. (see standard EN 14387). In the presence of gases or vapours of various kinds and/or gases or vapours containing particulate (aerosol sprays, fumes, mists, etc.)

### SECTION 8. Exposure controls/personal protection. ... / >>

combined filters are required.

Respiratory protection devices must be used if the technical measures adopted are not suitable for restricting the worker's exposure to the threshold values considered. The protection provided by masks is in any case limited.

If the substance considered is odourless or its olfactory threshold is higher than the corresponding TLV-TWA and in the case of an emergency, wear open-circuit compressed air breathing apparatus (in compliance with standard EN 137) or external air-intake breathing apparatus (in compliance with standard EN 138). For a correct choice of respiratory protection device, see standard EN 529.

#### ENVIRONMENTAL EXPOSURE CONTROLS.

The emissions generated by manufacturing processes, including those generated by ventilation equipment, should be checked to ensure compliance with environmental standards.

### SECTION 9. Physical and chemical properties.

#### 9.1. Information on basic physical and chemical properties.

Appearance	liquid
Colour	colourless
Odour	odourless
Odour threshold.	Not available.
pH.	3
Melting point / freezing point.	Not available.
Initial boiling point.	Not available.
Boiling range.	Not available.
Flash point.	> 60 °C.
Evaporation rate	Not available.
Flammability (solid, gas)	Not available.
Lower inflammability limit.	Not available.
Upper inflammability limit.	Not available.
Lower explosive limit.	Not available.
Upper explosive limit.	Not available.
Vapour pressure.	17,5
Vapour density	Not available.
Relative density.	1,00
Solubility	soluble in water
Partition coefficient: n-octanol/water	Not available.
Auto-ignition temperature.	Not available.
Decomposition temperature.	Not available.
Viscosity	Not available.
Explosive properties	Not available.
Oxidising properties	Not available.

#### 9.2. Other information.

VOC (Directive 2010/75/EC) :	0,30 % - 3,00	g/litre.
VOC (volatile carbon) :	0,12 % - 1,20	g/litre.

### SECTION 10. Stability and reactivity.

#### 10.1. Reactivity.

There are no particular risks of reaction with other substances in normal conditions of use.

ACETIC ACID

ACETIC ACID 100%: Vapour/air-mixtures are explosive at intense warming.

#### 10.2. Chemical stability.

The product is stable in normal conditions of use and storage.

#### 10.3. Possibility of hazardous reactions.

No hazardous reactions are foreseeable in normal conditions of use and storage.

ACETIC ACID

ACETIC ACID 100%: Risk of explosion on contact with: chromium (IV) oxide, potassium permanganate, sodium peroxide, perchloric acid, phosphorus chloride, hydrogen peroxide. Can react dangerously with: alcohols, bromine pentafluoride, chlorosulphuric acid, dichromate-sulphuric acid, ethane diamine, ethylene glycol, potassium hydroxide, strong bases, sodium hydroxide, strong oxidising agent, nitric acid, ammonium nitrate, potassium tert-butoxide, oleum. Forms explosive mixtures with air.

#### 10.4. Conditions to avoid.

None in particular. However the usual precautions used for chemical products should be respected.

ACETIC ACID

ACETIC ACID 100%: Avoid exposure to sources of heat and naked flames.

### SECTION 10. Stability and reactivity. ... / >>

#### 10.5. Incompatible materials.

##### ACETIC ACID

ACETIC ACID 100%: Carbonates, hydroxides, many oxides and phosphates. Oxidising substances and bases.

#### 10.6. Hazardous decomposition products.

Information not available.

### SECTION 11. Toxicological information.

In the absence of experimental data for the product itself, health hazards are evaluated according to the properties of the substances it contains, using the criteria specified in the applicable regulation for classification.

It is therefore necessary to take into account the concentration of the individual hazardous substances indicated in section 3, to evaluate the toxicological effects of exposure to the product.

#### 11.1. Information on toxicological effects.

##### ACETIC ACID

ACETIC ACID 100% - Acute oral toxicity, Symptoms: If ingested, severe burns of the mouth and throat, as well as a danger of perforation of the oesophagus and the stomach., Nausea, Vomiting, Risk of aspiration upon vomiting., Pulmonary failure possible after aspiration of vomit - Acute inhalation toxicity, LCLO Rat: 39.95 mg/l, 4 h, Symptoms: mucosal irritations, Cough, Shortness of breath, Possible damages:; damage of respiratory tract, Pneumonia, bronchitis, Inhalation may lead to the formation of oedemas in the respiratory tract., Symptoms may be delayed - Skin irritation, Rabbit, Result: Causes burns - Eye irritation, Rabbit, Result: Causes serious eye damage. Risk of blindness! Risk of corneal clouding. Germ cell mutagenicity, Genotoxicity in vitro, Ames test, Salmonella typhimurium, Result: negative - Mutagenicity (mammal cell test): chromosome aberration, Result: negative - Teratogenicity, Did not show teratogenic effects in animal experiments .

##### ACUTE TOXICITY.

LC50 (Inhalation - vapours) of the mixture:	Not classified (no significant component).
LC50 (Inhalation - mists / powders) of the mixture:	Not classified (no significant component).
LD50 (Oral) of the mixture:	Not classified (no significant component).
LD50 (Dermal) of the mixture:	Not classified (no significant component).

##### ACETIC ACID

LD50 (Oral).	3310 mg/kg Rat
LD50 (Dermal).	1060 mg/kg Rabbit
LC50 (Inhalation).	11,4 mg/l/4h Rat

##### SKIN CORROSION / IRRITATION.

Does not meet the classification criteria for this hazard class.

##### SERIOUS EYE DAMAGE / IRRITATION.

Does not meet the classification criteria for this hazard class.

##### RESPIRATORY OR SKIN SENSITISATION.

Does not meet the classification criteria for this hazard class.

##### GERM CELL MUTAGENICITY.

Does not meet the classification criteria for this hazard class.

##### CARCINOGENICITY.

Does not meet the classification criteria for this hazard class.

##### REPRODUCTIVE TOXICITY.

Does not meet the classification criteria for this hazard class.

##### STOT - SINGLE EXPOSURE.

Does not meet the classification criteria for this hazard class.

##### STOT - REPEATED EXPOSURE.

Does not meet the classification criteria for this hazard class.

##### ASPIRATION HAZARD.

Does not meet the classification criteria for this hazard class.

## SECTION 12. Ecological information.

Use this product according to good working practices. Avoid littering. Inform the competent authorities, should the product reach waterways or contaminate soil or vegetation.

### 12.1. Toxicity.

ACETIC ACID

ACETIC ACID 100%: Toxicity to algae, IC50 Scenedesmus quadricauda (Green algae): 4,000 mg/l, 16 h, (maximum permissible toxic concentration) (Lit.) - Toxicity to bacteria, EC50 Pseudomonas putida: 2,850 mg/l, 16 h, neutral (maximum permissible toxic concentration) (Lit.), microtox test EC50 Photobacterium phosphoreum: 11 mg/l, 15 min .

ACETIC ACID

LC50 - for Fish.

> 300,8 mg/l/96h Oncorhynchus mykiss

EC50 - for Crustacea.

> 300,82 mg/l/48h Daphnia magna

### 12.2. Persistence and degradability.

ACETIC ACID

ACETIC ACID 100%: Biodegradability 99 %, 30 d, Readily biodegradable - 95 %; 5 d, Readily eliminated from water - Biochemical Oxygen Demand (BOD) 880 mg/g (5 d) - Ratio BOD/ThBOD BOD5 76 %.

ACETIC ACID

Solubility in water.

> 10000 mg/l

Rapidly biodegradable.

### 12.3. Bioaccumulative potential.

ACETIC ACID

Partition coefficient: n-octanol/water.

-0,17

### 12.4. Mobility in soil.

ACETIC ACID

Partition coefficient: soil/water.

1,153

### 12.5. Results of PBT and vPvB assessment.

On the basis of available data, the product does not contain any PBT or vPvB in percentage greater than 0,1%.

### 12.6. Other adverse effects.

ACETIC ACID

ACETIC ACID 100%: Biological effects, Harmful effect due to pH shift. Caustic even in diluted form. Discharge into the environment must be avoided.

## SECTION 13. Disposal considerations.

### 13.1. Waste treatment methods.

Reuse, when possible. Neat product residues should be considered special non-hazardous waste.

Disposal must be performed through an authorised waste management firm, in compliance with national and local regulations.

CONTAMINATED PACKAGING

Contaminated packaging must be recovered or disposed of in compliance with national waste management regulations.

## SECTION 14. Transport information.

The product is not dangerous under current provisions of the Code of International Carriage of Dangerous Goods by Road (ADR) and by Rail (RID), of the International Maritime Dangerous Goods Code (IMDG), and of the International Air Transport Association (IATA) regulations.

### 14.1. UN number.

Not applicable.





### SECTION 16. Other information. ... / >>

#### LEGEND:

- ADR: European Agreement concerning the carriage of Dangerous goods by Road
- CAS NUMBER: Chemical Abstract Service Number
- CE50: Effective concentration (required to induce a 50% effect)
- CE NUMBER: Identifier in ESIS (European archive of existing substances)
- CLP: EC Regulation 1272/2008
- DNEL: Derived No Effect Level
- EmS: Emergency Schedule
- GHS: Globally Harmonized System of classification and labeling of chemicals
- IATA DGR: International Air Transport Association Dangerous Goods Regulation
- IC50: Immobilization Concentration 50%
- IMDG: International Maritime Code for dangerous goods
- IMO: International Maritime Organization
- INDEX NUMBER: Identifier in Annex VI of CLP
- LC50: Lethal Concentration 50%
- LD50: Lethal dose 50%
- OEL: Occupational Exposure Level
- PBT: Persistent bioaccumulative and toxic as REACH Regulation
- PEC: Predicted environmental Concentration
- PEL: Predicted exposure level
- PNEC: Predicted no effect concentration
- REACH: EC Regulation 1907/2006
- RID: Regulation concerning the international transport of dangerous goods by train
- TLV: Threshold Limit Value
- TLV CEILING: Concentration that should not be exceeded during any time of occupational exposure.
- TWA STEL: Short-term exposure limit
- TWA: Time-weighted average exposure limit
- VOC: Volatile organic Compounds
- vPvB: Very Persistent and very Bioaccumulative as for REACH Regulation
- WGK: Water hazard classes (German).

#### GENERAL BIBLIOGRAPHY

1. Regulation (EU) 1907/2006 (REACH) of the European Parliament
2. Regulation (EC) 1272/2008 (CLP) of the European Parliament
3. Regulation (EU) 790/2009 (I Atp. CLP) of the European Parliament
4. Regulation (EU) 2015/830 of the European Parliament
5. Regulation (EU) 286/2011 (II Atp. CLP) of the European Parliament
6. Regulation (EU) 618/2012 (III Atp. CLP) of the European Parliament
7. Regulation (EU) 487/2013 (IV Atp. CLP) of the European Parliament
8. Regulation (EU) 944/2013 (V Atp. CLP) of the European Parliament
9. Regulation (EU) 605/2014 (VI Atp. CLP) of the European Parliament
10. Regulation (EU) 2015/1221 (VII Atp. CLP) of the European Parliament

- The Merck Index. - 10th Edition
- Handling Chemical Safety
- INRS - Fiche Toxicologique (toxicological sheet)
- Patty - Industrial Hygiene and Toxicology
- N.I. Sax - Dangerous properties of Industrial Materials-7, 1989 Edition
- ECHA website

#### Note for users:

The information contained in the present sheet are based on our own knowledge on the date of the last version. Users must verify the suitability and thoroughness of provided information according to each specific use of the product.

This document must not be regarded as a guarantee on any specific product property.

The use of this product is not subject to our direct control; therefore, users must, under their own responsibility, comply with the current health and safety laws and regulations. The producer is relieved from any liability arising from improper uses.

Provide appointed staff with adequate training on how to use chemical products.

#### Changes to previous review:

The following sections were modified:

08 / 09.