

# SAFETY DATA SHEET

Issue Date 17-Oct-2019 Revision Date 17-Oct-2019 Version 4.1 Page 1/13 **1. IDENTIFICATION** Product identifier Titrant Solution Hardness 3 **Product Name** 0.015 M EDTA Other means of identification Product Code(s) 42632 (U.S. Product Code 42632) M00582 Safety data sheet number Recommended use of the chemical and restrictions on use **Recommended Use** Laboratory Use. Hardness determination. Uses advised against None. **Restrictions on use** None. Details of the supplier of the safety data sheet **Manufacturer Address** Hach Company P.O.Box 389 Loveland, CO 80539 USA +1(970) 669-3050

#### Emergency telephone number

+1(303) 623-5716 - 24 Hour Service

# 2. HAZARDS IDENTIFICATION

#### Classification

#### **Regulatory Status**

This chemical is not considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Not a dangerous substance or mixture according to the Globally Harmonized System (GHS)

#### Hazards not otherwise classified (HNOC) Not applicable

#### Label elements

Signal word None

#### **Hazard statements**

The product contains no substances which at their given concentration, are considered to be hazardous to health

#### Other Hazards Known

None

# **3. COMPOSITION/INFORMATION ON INGREDIENTS**

# Substance

Not applicable

# <u>Mixture</u>

Chemi	ical name	CAS No.	Percent Range	HMRIC #
1,2-Propanediol		57-55-6	20 - 30%	-
	hloric acid	7647-01-0	<0.1%	-
	4. FIRST AID MEASURE	ES		
Description of first aid measures				
General advice	No hazards which require special first aid measures. Use first aid treatment according to the nature of the injury.			cording to
Inhalation	Remove to fresh air.			
Eye contact	Rinse thoroughly with plenty of water for at least 15 minutes, lifting lower and upper eyelids. Consult a physician.			
Skin contact	Wash skin with soap and water.			
Ingestion	Clean mouth with water and drink afterwards plenty of water.			
Most important symptoms and effe	cts, both acute and delayed			
Symptoms	See Section 11 for additional Toxicological Information.			
Indication of any immediate medica	al attention and special treatment neede	ed		
Note to physicians	Treat symptomatically.			
	5. FIRE-FIGHTING MEASU	IRES		
Suitable Extinguishing Media	Use extinguishing measures that are ap surrounding environment.	propriate to local circum	stances and th	e
Unsuitable Extinguishing Media	Caution: Use of water spray when fightir	ng fire may be inefficient		
Specific hazards arising from the chemical	No information available.			
Hazardous combustion products	This material will not burn.			
Special protective equipment for fire-fighters	Firefighters should wear self-contained breathing apparatus and full firefighting turnout gear. Use personal protection equipment.			

# 6. ACCIDENTAL RELEASE MEASURES

U.S. Notice	Only persons properly qualified to respond to an emergency involving hazardous substances may respond to a spill according to federal regulations (OSHA 29 CFR 1910.120(a)(v)) and per your company's emergency response plan and guidelines/procedures. See Section 13, Special Instructions for disposal assistance. Outside of the US, only persons properly gualified according to state or local regulations
	Outside of the 00, only persons property qualified according to state of local regulations

should respond to a spill involving chemicals.

# Personal precautions, protective equipment and emergency procedures

Personal precautions	Ensure adequate ventilation.			
Environmental precautions				
Environmental precautions	See Section 12 for additional ecological information.			
Methods and material for containment and cleaning up				
Methods for containment	Prevent further leakage or spillage if safe to do so.			
Methods for cleaning up	Pick up and transfer to properly labeled containers.			
Prevention of secondary hazards	Clean contaminated objects and areas thoroughly observing environmental regulations.			
Reference to other sections	See section 8 for more information. See section 13 for more information.			

# 7. HANDLING AND STORAGE

#### Precautions for safe handling

Advice on safe handling Handle in accordance with good industrial hygiene and safety practice.

# Conditions for safe storage, including any incompatibilities

**Storage Conditions** Keep containers tightly closed in a dry, cool and well-ventilated place.

Flammability class Not applicable

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### Control parameters

## **Exposure Guidelines**

Chemical name	ACGIH TLV	OSHA PEL	NIOSH
Hydrochloric acid	Ceiling: 2 ppm	(vacated) Ceiling: 5 ppm	IDLH: 50 ppm
CAS#: 7647-01-0		(vacated) Ceiling: 7 mg/m <sup>3</sup>	Ceiling: 5 ppm
		Ceiling: 5 ppm	Ceiling: 7 mg/m <sup>3</sup>
		Ceiling: 7 mg/m <sup>3</sup>	
Appropriate engineering controls	_		
Engineering Controls	Showers		

Eyewash stations Ventilation systems.

<u>ch as personal protective equipment</u> No protective equipment is needed under normal use conditions. If exposure limits are exceeded or irritation is experienced, ventilation and evacuation may be required.
Wear suitable gloves.
Wear safety glasses with side shields (or goggles).
No special protective equipment required.

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General Hygiene Considerations	Handle in accordance with good industrial hygiene and safety practice.
Environmental exposure controls	Local authorities should be advised if significant spillages cannot be contained. Do not allow into any sewer, on the ground or into any body of water.

Thermal hazards None under normal processing.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

# Information on basic physical and chemical properties

Physical state Appearance Odor	aqueous solution None	Liquid		Color Odor threshold	colorless No data available
Property_			<u>Values</u>		Remarks • Method
Molecular weight	:		No data availal	ble	
рН			5.0		
Melting point/free	ezing point		~ -24 °C /	-11 °F	
Boiling point / bo	iling range		>~ 100 °C	/ 212 °F	
Evaporation rate			0.63 (water = 1	)	
Vapor pressure			21.902 mm Hg	/ 2.92 kPa at 2	5 °C / 77 °F
Vapor density (ai	r = 1)		0.62 (Air = 1)		
Specific gravity (	water = 1 / air = 1)		1.026		
Partition Coeffici	ent (n-octanol/wate	er)	Not applicable		
Soil Organic Carl Coefficient	oon-Water Partition	ı	Not applicable		
Autoignition tem	perature		No data availal	ble	
Decomposition to	emperature		No data availal	ole	
Dynamic viscosit	су.		No data availal	ble	
Kinematic viscos	ity		No data availal	ble	
<b>•</b> • • • • • • • •					

# Solubility(ies)

# Water solubility

Water solubility classification	Water solubility	Water Solubility Temperature
Soluble	> 1000 mg/L	25 °C / 77 °F

# Solubility in other solvents

Chemical Name	Solubility classification	<u>Solubility</u>	Solubility Temperature
Acid	Soluble	> 1000 mg/L	25 °C / 77 °F

### **Other Information**

Metal Corrosivity	v		

#### **Steel Corrosion Rate** Aluminum Corrosion Rate

No data available No data available

#### Volatile Organic Compounds (VOC) Content See ingredients information below

Chemical name	CAS No.	Volatile organic compounds (VOC) content	CAA (Clean Air Act)
1,2-Propanediol	57-55-6	No data available	Х
Hydrochloric acid	7647-01-0	Not applicable	-

#### **Explosive properties**

Upper explosion limit Lower explosion limit	No data available No data available
Flammable properties	
Flash point	No data available
Flammability Limit in Air Upper flammability limit Lower flammability limit	No data available No data available
Oxidizing properties	No data available.
Bulk density	No data available

# **10. STABILITY AND REACTIVITY**

#### **Reactivity** Not applicable.

Chemical stability Stable under normal conditions.

#### **Explosion data**

Sensitivity to Mechanical Impact None. Sensitivity to Static Discharge None.

### Possibility of Hazardous Reactions

None under normal processing.

# Hazardous polymerization

None under normal processing.

# Conditions to avoid

None known based on information supplied.

#### Incompatible materials

Strong oxidizing agents, strong acids, and strong bases.

#### Hazardous Decomposition Products

None known based on information supplied.

# **11. TOXICOLOGICAL INFORMATION**

#### Information on Likely Routes of Exposure

Product Information	
Inhalation	No known effect based on information supplied.
Eye contact	No known effect based on information supplied.
Skin contact	No known effect based on information supplied.
Ingestion	No known effect based on information supplied.
Symptoms	No information available.

#### Acute toxicity

Based on available data, the classification criteria are not met

#### **Product Acute Toxicity Data**

No data available.

# Ingredient Acute Toxicity Data

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
1,2-Propanediol	Rat	20000 mg/kg	None	None reported	RTECS (Registry of Toxic
(20 - 30%)	LD50		reported		Effects of Chemical
CAS#: 57-55-6					Substances)
Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
1,2-Propanediol	Rabbit	20800 mg/kg	None	None reported	IUCLID (The International
(20 - 30%)	LD50		reported		Uniform Chemical Information
CAS#: 57-55-6					Database)

#### Unknown Acute Toxicity

0% of the mixture consists of ingredient(s) of unknown toxicity.

# Acute Toxicity Estimations (ATE)

ATEmix (oral)	No information available
ATEmix (dermal)	No information available
ATEmix (inhalation-dust/mist)	No information available
ATEmix (inhalation-vapor)	No information available
ATEmix (inhalation-gas)	No information available

#### Skin corrosion/irritation

Based on available data, the classification criteria are not met.

#### **Product Skin Corrosion/Irritation Data**

No data available.

#### Ingredient Skin Corrosion/Irritation Data

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Hydrochloric acid	Existing human	Human	None	None	Corrosive to skin	RTECS (Registry of
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#### Serious eye damage/irritation

Based on available data, the classification criteria are not met.

#### Product Serious Eye Damage/Eye Irritation Data No data available.

no dala avaliable.

# Ingredient Eye Damage/Eye Irritation Data

No data available.

Chemical name	Test method	Species	Reported dose	Exposure time	Results	Key literature references and sources for data
Hydrochloric acid (<0.1%) CAS#: 7647-01-0	Existing human experience	Human	None reported	None reported	Corrosive to eyes	RTECS (Registry of Toxic Effects of Chemical Substances)

#### Respiratory or skin sensitization

Based on available data, the classification criteria are not met.

#### **Product Sensitization Data**

No data available.

#### **Ingredient Sensitization Data**

No data available.

# STOT - single exposure

Based on available data, the classification criteria are not met.

#### **Product Specific Target Organ Toxicity Single Exposure Data** No data available.

# Ingredient Specific Target Organ Toxicity Single Exposure Data

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Hydrochloric acid	Man	2.857 mg/kg	None	Vascular	RTECS (Registry of Toxic
(<0.1%)	LDLo	0.0	reported	BP lowering not characterized in	Effects of Chemical
CAS#: 7647-01-0				autonomic section	Substances)
				Lungs, Thorax, or	
				Respiration	
				Respiratory depression	
				Gastrointestinal	
				Other changes	
Chemical name	Endpoint	Reported	Exposure	Toxicological effects	Key literature references and
	type	dose	time		sources for data
Hydrochloric acid	Human	0.05 mg/L	None	Lungs, Thorax, or	RTECS (Registry of Toxic
(<0.1%)	TCLO		reported	Respiration	Effects of Chemical
CAS#: 7647-01-0				Cough	Substances)

#### STOT - repeated exposure

Based on available data, the classification criteria are not met.

#### Product Specific Target Organ Toxicity Repeat Dose Data No data available.

#### Ingredient Specific Target Organ Toxicity Repeat Exposure Data No data available.

Chemical name Endpoint Reported Exposure Toxicological effects Key literature references and
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	type	dose	time		sources for data
1,2-Propanediol	Rat	2.180 mg/L	90 days	Behavioral	RTECS (Registry of Toxic
(20 - 30%)	TCLO	_		Food intake	Effects of Chemical
CAS#: 57-55-6				Biochemical	Substances)
				Enzyme inhibition, induction, or	
				change in blood or tissue levels	
				(dehydrogenases)	
				Endocrine	
				Changes in spleen weight	
Hydrochloric acid	Rat	0.000685	84 days	Behavioral	RTECS (Registry of Toxic
(<0.1%)	TCLO	mg/L		Muscle contraction or spasticity	Effects of Chemical
CAS#: 7647-01-0				Biochemical	Substances)
				Enzyme inhibition, induction, or	
				change in blood or tissue levels	
				(true cholinesterase)	
				Kidney, Ureter, or Bladder	
				Other changes in urine	
				composition	

# Carcinogenicity

Based on available data, the classification criteria are not met.

# Product Carcinogenicity Data

No data available.

# Ingredient Carcinogenicity Data

No data available.

Chemical name	CAS No.	ACGIH	IARC	NTP	OSHA
1,2-Propanediol	57-55-6	-	-	-	-
Hydrochloric acid	7647-01-0	-	Group 3	-	Х

# Legend

ACGIH (American Conference of Governmental Industrial Hygienists)	Does not apply
IARC (International Agency for Research on Cancer)	Does not apply
NTP (National Toxicology Program)	Does not apply
OSHA (Occupational Safety and Health Administration of the US Department of	Does not apply
Labor)	

# Germ cell mutagenicity

Based on available data, the classification criteria are not met.

#### Product Germ Cell Mutagenicity invitro Data

No data available.

# Ingredient Germ Cell Mutagenicity invitro Data

No data available.

Chemical name	Test	Cell Strain	Reported dose	Exposure time	Results	Key literature references and sources for data
1,2-Propanediol (20 - 30%) CAS#: 57-55-6	Cytogenetic analysis	Hamster fibroblast	32000 mg/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)
Hydrochloric acid (<0.1%) CAS#: 7647-01-0	Cytogenetic analysis	Hamster lung	30 mmol/L	None reported	Positive test result for mutagenicity	RTECS (Registry of Toxic Effects of Chemical Substances)

Product Germ Cell Mutagenicity invivo Data

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No data available.

Ingredient Germ Cell Mutagenicity invivo Data

No data available.

# Reproductive toxicity

Based on available data, the classification criteria are not met.

# Product Reproductive Toxicity Data

No data available.

# Ingredient Reproductive Toxicity Data

No data available.

Chemical name	Endpoint type	Reported dose	Exposure time	Toxicological effects	Key literature references and sources for data
Hydrochloric acid (<0.1%) CAS#: 7647-01-0	Rat TC⊾	0.450 mg/L	1 hours	Effects on Embryo or Fetus Fetotoxicity (except death e.g. stunted fetus) Specific Developmental Abnormalities Homeostasis	RTECS (Registry of Toxic Effects of Chemical Substances)

#### Aspiration hazard

Based on available data, the classification criteria are not met.

# **12. ECOLOGICAL INFORMATION**

#### Ecotoxicity

Unknown aquatic toxicity

0% of the mixture consists of components(s) of unknown hazards to the aquatic environment.

#### Product Ecological Data

Aquatic Acute Toxicity No data available.

#### Aquatic Chronic Toxicity No data available.

#### **Ingredient Ecological Data**

# Aquatic Acute Toxicity

No data available.

Chemical name	Exposure	Species	Endpoint	Reported	Key literature references and
	time		type	dose	sources for data
1,2-Propanediol	96 hours	Pimephales promelas	LC <sub>50</sub>	51400 mg/L	IUCLID (The International
(20 - 30%)				-	Uniform Chemical Information
CAS#: 57-55-6					Database)
Chemical name	Exposure	Species	Endpoint	Reported	Key literature references and
	time		type	dose	sources for data
1,2-Propanediol	48 Hours	Daphnia magna	LC50	34400 mg/L	IUCLID (The International
(20 - 30%)					Uniform Chemical Information
CÀS#: 57-55-6					Database)
Chemical name	Exposure	Species	Endpoint	Reported	Key literature references and
	time		type	dose	sources for data
1,2-Propanediol	96 hours	Selenastrum capricornutum	EC <sub>50</sub>	19000 mg/L	IUCLID (The International
(20 - 30%)				Ŭ	Uniform Chemical Information
CAS#: 57-55-6					Database)
Aquatic Chronic Tox	icity		1	1	

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No data available.

Persistence and degradability

Product Biodegradability Data No data available.

### **Bioaccumulation**

Product Bioaccumulation Data No data available.

# Partition Coefficient (n-octanol/water)

**Mobility** 

Soil Organic Carbon-Water Partition Coefficient

#### Other adverse effects No information available.

# **13. DISPOSAL CONSIDERATIONS**

Not applicable

Not applicable

Waste treatment methods	
Waste from residues/unused products	Dispose of in accordance with local regulations. Dispose of waste in accordance with environmental legislation.
Contaminated packaging	Do not reuse empty containers.
Special instructions for disposal	Open cold water tap completely, slowly pour the material to the drain. Allow cold water to run for 5 minutes to completely flush the system. Dispose of material in an E.P.A. approved hazardous waste facility.

# **14. TRANSPORT INFORMATION**

DOT	Not regulated
TDG	Not regulated
IATA	Not regulated
IMDG	Not regulated
Note:	No special precautions necessary.

#### Additional information

There is a possibility that this product could be contained in a reagent set or kit composed of various compatible dangerous goods. If the item is not in a reagent set or kit, the classification given above applies.

If the item is part of a reagent set or kit the classification would change to the following:

UN3316 Chemical Kit, Hazard Class 9, Packing Group II or III.

If the item is not regulated, the Chemical Kit classification does not apply.

15. REGULATORY INFORMATION				
National Inventories				
TSCA	Complies			
DSL/NDSL	Complies			

**TSCA** - United States Toxic Substances Control Act Section 8(b) Inventory **DSL/NDSL** - Canadian Domestic Substances List/Non-Domestic Substances List

International Inventories	
EINECS/ELINCS	Complies
ENCS	Complies
IECSC	Complies
KECL	Complies
PICCS	Complies
TCSI	Complies
AICS	Complies
NZIoC	Complies

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

**ENCS** - Japan Existing and New Chemical Substances

**IECSC** - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

TCSI - Taiwan Chemical Substances Inventory

AICS - Australian Inventory of Chemical Substances

NZIOC - New Zealand Inventory of Chemicals

#### **US Federal Regulations**

#### SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

Chemical name	SARA 313 - Threshold Values %
Hydrochloric acid (CAS #: 7647-01-0)	1.0
SARA 311/312 Hazard Categories	
Acute health hazard	Yes
Chronic Health Hazard	No
Fire hazard	No
Sudden release of pressure hazard	No
Reactive Hazard	No

#### **CWA (Clean Water Act)**

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

Chemical name	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants	CWA - Hazardous Substances
Hydrochloric acid 7647-01-0	5000 lb	-	-	Х

### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material

Chemical name	Hazardous Substances RQs	CERCLA/SARA RQ	Reportable Quantity (RQ)		
Hydrochloric acid	5000 lb	5000 lb	RQ 5000 lb final RQ		
7647-01-0			RQ 2270 kg final RQ		
U.S Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues					

Chemical name U.S. - Department of Homeland Security - Chemical Facility Anti-Terrorism Standards (CFATS) - Security Issues

Hydrochloric acid (<0.1%) CAS#: 7647-01-0	Release - Toxic (concentration >=37%); Release - Toxic (anhydrous); Theft - Weapons of Mass Effect (anhydrous)
IIS _ DEA (Drug Enforcement Administration) List 18 List II	

# U.S. - DEA (Drug Enforcement Administration) List I & List II

Chemical name	U.S DEA (Drug Enforcement Administration) - List I or Precursor Chemicals	U.S DEA (Drug Enforcement Administration) - List II or Essential Chemicals
Hydrochloric acid (<0.1%) CAS#: 7647-01-0	Not Listed	0.0 kg Domestic Sales Weight (listed under anhydrous Hydrogen chloride); 50 gallon Export Volume (exports, transshipments and international transactions to designated countries); 27 kg Export Weight (exports, transshipments and international transactions to designated countries, listed under anhydrous Hydrogen chloride)

# US State Regulations

#### **California Proposition 65**

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

This product does not contain any substances regulated by state right-to-know regulations.

Chemical name	New Jersey	Massachusetts	Pennsylvania
1,2-Propanediol	Х	-	Х
57-55-6			
Hydrochloric acid	Х	Х	Х
7647-01-0			

# **U.S. EPA Label Information**

Chemical name	FIFRA	FDA
1,2-Propanediol	180.0910	21 CFR 184.1666
	180.0930	
Hydrochloric acid	180.0910	21 CFR 182.1057

# 16. OTHER INFORMATION, INCLUDING DATE OF PREPARATION OF THE LAST REVISION

**Special Comments** None

#### **Additional information**

Global Automotive Declarable Substance List (GADSL) Not applicable **NFPA and HMIS Classifications** 

NFPA	Health hazards - 0	Flammability - 0	Instability - 0	Physical and chemical properties -
HMIS	Health hazards - 0	Flammability - 0	Physical hazards - 0	Personal protection - X

Key or legend to abbreviations and acronyms used in the safety data sheet

NIOSH IDLH ACGIH NDF		Immediately Dangerous to Life or Health ACGIH (American Conference of Governmen no data		ental Industrial Hygienists)			
Legend - Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION							
TWA	TWA (time-weighted average)		STEL	STEL (Short Term Exposure Limit)			
MAC	Maximum Allowable Concentration		Ceiling	Ceiling Limit Value			
Х	Listed		Vacated	These values have no official status. The only binding levels of contaminants are those listed in the final OSHA PEL. These lists are for reference purposes only. Please note that some reference state regulations of these "liberated" exposure limits in their state regulations.			
SKN* RSP+ C M	Skin designation Respiratory sensitization Carcinogen mutagen		SKN+ ** R	Skin sensitization Hazard Designation Reproductive toxicant			
Prepared By		Hach Product Compliance Department					
Issue Date 17-Oct-2019		17-Oct-2019					
Revision Date		17-Oct-2019					
Revision Note		None					

**Disclaimer** 

USER RESPONSIBILITY: Each user should read and understand this information and incorporate it in individual site safety programs in accordance with applicable hazard communication standards and regulations.

THE INFORMATION CONTAINED HEREIN IS BASED ON DATA CONSIDERED TO BE ACCURATE. HOWEVER, NO WARRANTY IS EXPRESSED OR IMPLIED REGARDING THE ACCURACY OF THESE DATA OR THE RESULTS TO BE OBTAINED FROM THE USE THEREOF.

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End of Safety Data Sheet