## MATERIAL SAFETY DATA SHEET



Hydrochloric Acid 0.5 Normal Aqueous

SECTION 1 . Product and Company le	denficatio	n			
Product Name and Synonym:	Hydrochl	oric Acid 0.5 Normal	Aqueous		
Product Code:	4190				
Material Uses: Manufacturer:	-	Solutions, Inc Iwy 225		F	ealth: 2 lammability: 0 eactivity: 0
	Deer P	ark, TX 77536			ast Slight Moderate High Extreme
		179-2569		ľ	
Entry Date :	12/1/20			NA=	Not Applicable NE=Not Established
Print Date:	12/1/2014				
24 Hour Emergency Assistance :	Chemtre	ec 800-424-9300 c 613-996-6666			
SECTION 2 HAZARD IDENTIFICATION					
SECTION 3 MIXTURE COMPONENTS	eyes, s closed.				e ventilation. Avoid contact with after handling. Keep container
SARA 313 Component		CAS Number	Percent Comp.	Dimensi	Exposure Limits
✓ Hydrochloric Acid		CAS# 7647-01- 0	4.3%	V/V	OSHA PEL (C) 5 ppm, (C) 7
Viotor Deienized AS					mg/m <i>f</i>
Water, Deionized AS <sup>-</sup> Type II	ТМ	CAS# 7732-18- 5	Balance	V/V	mg/m <i>j</i> None Established
	тм		Balance	V/V	None
Type II	May cau or dust. I	5 se irritation and burns	s. May be har	rmful if sw	None Established allowed. Avoid breathing vapor t with eyes, skin, and clothes.
Type II	May cau or dust. I Wash the FIRST A	5 se irritation and burns Use with adequate ve oroughly after handlin	s. May be har ntilation. Avc ng. Keep cont contaminated	rmful if sw bid contact tainer clos	None Established allowed. Avoid breathing vapor t with eyes, skin, and clothes. sed. Wash exposed area with soap
Type II	May cau or dust. I Wash the FIRST A and wate EYES: W occasion	5 se irritation and burns Use with adequate ve oroughly after handlin ID: SKIN: Remove c er. if irritation persists, Vash eyes with plenty	s. May be har intilation. Avc ing. Keep cont contaminated , seek medica r of water for d. INHALATI	rmful if sw bid contact tainer clos I clothing. al attentio at least 15 ON: Rem	None Established allowed. Avoid breathing vapor t with eyes, skin, and clothes. ted. Wash exposed area with soap n. 5 minutes, lifting lids ove to fresh air. If not breathing,
Type II	May cau or dust. I Wash the FIRST A and wate EYES: W occasion give artif INGEST spontane	5 se irritation and burns Use with adequate ve oroughly after handlin ID: SKIN: Remove of er. if irritation persists, Vash eyes with plenty hally. Seek Medical Ai icial respiration. If bre ION: Give several gla	s. May be har ntilation. Ave og. Keep conf contaminated , seek medica of water for d. INHALATI eathing is diffi usses of milk	rmful if sw pid contact tainer clos d clothing. al attentio at least 1 ON: Rem icult, give or water.	None Established allowed. Avoid breathing vapor t with eyes, skin, and clothes. sed. Wash exposed area with soap n. 5 minutes, lifting lids ove to fresh air. If not breathing, oxygen
Type II	May cau or dust. I Wash the FIRST A and wate EYES: V occasion give artif INGEST spontane unconsc	5 se irritation and burns Use with adequate ve oroughly after handlin ID: SKIN: Remove of er. if irritation persists, Vash eyes with plenty hally. Seek Medical Ai icial respiration. If bre ION: Give several gla eously, but DO NOT I	s. May be har ntilation. Ave og. Keep conf contaminated , seek medica of water for d. INHALATI eathing is diffi usses of milk	rmful if sw pid contact tainer clos d clothing. al attentio at least 1 ON: Rem icult, give or water.	None Established allowed. Avoid breathing vapor t with eyes, skin, and clothes. sed. Wash exposed area with soap n. 5 minutes, lifting lids ove to fresh air. If not breathing, oxygen Vomiting may occur

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Fire / Explosion Hazards:	None			
Fire Fighting Procedure:		d breathing apparatus and protec with skin and clothing.	tive clothing	
SECTION 6 ACCIDENTAL RELEAS	E MEASURES			
		ert material, then place in a chemi e with a weak base.	cal waste	
SECTION 7 HANDLING AND STOR	AGE			
		blace. Do not get in eyes, on skin, oughly after handling	on	
SECTION 8 EXPOSURE CONTROL	S/PERSONAL PROTECTI	ON		
Respiratory Protection:	None required			
Ventilation	Local Exhaust 🗸			
	Mechanical			
Protective Gloves:		gloves to prevent skin exposure		
Eye Protection:	Splash Goggles			
Other Protective Equipment:	Wear appropriate of skin exposure	clothing to prevent		
SECTION 9 PHYSICAL AND CHEM	CAL PROPERTIES			
Melting Point:	~0°C	Percent Volatile by Volume:	>99	
Boiling Point:	~100°C	Evaporation Rate	Information not available	
Vapor Pressure:	Information not available	Evaporation Standard		
Vapor Density:	Information not available	Auto Ignition Temp	Not applicable	
Solubility in Water:	Soluble	Lower Flamm. Limit in Air	Not applicable	
Appearance /Odors:	Clear, colorless liquid/no odor	Upper Flamm. Limit in Air	Not applicable	
Flash Point:	Information not available			
Specific Gravity:	~ 1			
SECTION 10 STABILITY AND READ	CTIVITY INFORMATION			
Stability:	Stable			
Conditions to Avoid:	Avoid Light			
Materials to Avoid:	Halides, ammonia,	phosphates, bases		
Hazardous Decomposition Products:	HCI Fumes, Chlori	ne		
Hazardous polymerization:	Will Not Occur			

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Conditions to Avoid: None known

SECTION 11	Toxicological Information	
SECTION 12	Ecological Information	
SECTION 13	Disposal Considerations	
SECTION 14	Transport Information	

DOT Classification: UN1789, Hydrochloric Acid Solution, 8, PG III

DOT Regulations may change from time to time. Please consult the most recent D.O.T. regulations.

CTION 15	Regulatory	Information	
SECTION 16	Additional I	nformation	
	Overexposure symtoms: Corrosive effects.: Acute-Irritation possin, eyes, lungs, mucous membranes, and GI tract. Chronic- known. Conditions aggravated/Target organs: Persons with pr skin, eye, or respiratory disorders may be more susceptible.		
		Flammability	
	Health	Reactivity	
Revisions		NFPA	
		0.2	

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