

# MATERIAL SAFETY DATA SHEET

Hydrochloric Acid 20% v/v Solution

## SECTION 1 . Product and Company Identification

Product Name and Synonym: Hydrochloric Acid 20% v/v Solution

Product Code: 4400

Material Uses:

Manufacturer: Science Stuff  
1104 Newport Ave

Austin, TX 78753

(512) 837-6020

Entry Date : 6/5/2013

Print Date: 6/5/2013

24 Hour Emergency Assistance : Chemtrec 800-424-9300  
Canutec 613-996-6666

Health:	3
Flammability:	0
Reactivity:	0

Hazard Rating:  
Least Slight Moderate High Extreme  
0 1 2 3 4  
NA=Not Applicable NE=Not Established

## SECTION 2 HAZARD IDENTIFICATION

Causes severe irritation and burns. May Be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

## SECTION 3 MIXTURE COMPONENTS

SARA 313	Component	CAS Number	Percent Comp.	Dimension	Exposure Limits
<input checked="" type="checkbox"/>	Hydrochloric Acid	CAS# 7647-01-0	20%	V/V	OSHA PEL (C) 5 ppm, (C) 7 mg/mf
<input type="checkbox"/>	Water, Deionized ASTM Type II	CAS# 7732-18-5	Balance	V/V	None Established

## SECTION 4 FIRST AID MEASURES

Causes severe irritation and burns. May Be harmful if swallowed. Avoid breathing vapor or dust. Use with adequate ventilation. Avoid contact with eyes, skin, and clothes. Wash thoroughly after handling. Keep container closed.

FIRST AID: CALL A PHYSICIAN. SKIN: In case of contact, immediately flush skin with water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly clean clothing and shoes before reuse.

EYES: Wash eyes with plenty of water for at least 15 minutes, lifting lids occasionally. Seek Medical Aid. INHALATION: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen

INGESTION: Give several glasses of milk or water. Vomiting may occur spontaneously, but DO NOT INDUCE! Never give anything by mouth to an unconscious person.

## SECTION 5 FIRE FIGHTING MEASURES

Fire Extinguisher Type: Any means suitable for extinguishing surrounding fire

Hydrochloric Acid 20% v/v Solution

Fire / Explosion Hazards: Thermal decomposition produces highly toxic fumes.  
Fire Fighting Procedure: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and clothing.

**SECTION 6 ACCIDENTAL RELEASE MEASURES**

Absorb spill with inert material, then place in a chemical waste container. Neutralize with a weak base.

**SECTION 7 HANDLING AND STORAGE**

Store in a cool, dry, well-ventilated place away from incompatible materials. Wash thoroughly after handling.

**SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION**

Respiratory Protection: NIOSH/MSHA-approved respirator  
Ventilation  
Local Exhaust   
Mechanical   
Protective Gloves: NIOSH Approved Gloves  
Eye Protection: Goggles and Face Shield  
Other Protective Equipment: Wear appropriate clothing to prevent skin exposure

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

Melting Point:	Information not available	Percent Volatile by Volume:	100%
Boiling Point:	Information not available	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 liquid, odorless	Upper Flamm. Limit in Air	Not applicable
Flash Point:	Not applicable		
Specific Gravity:	~1		

**SECTION 10 STABILITY AND REACTIVITY INFORMATION**

Stability: Stable  
Conditions to Avoid: Avoid contact with incompatible materials.  
Materials to Avoid: Oxidizing agents, metals, bases.  
Hazardous Decomposition Products: Hydrochloric acid fumes, hydrogen, chlorine, ClO<sub>x</sub>  
Hazardous polymerization: Will Not Occur

Hydrochloric Acid 20% v/v Solution

Conditions to Avoid: None known

**SECTION 11 Toxicological Information**

**SECTION 12 Ecological Information**

**SECTION 13 Disposal Considerations**

**SECTION 14 Transport Information**

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

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

**SECTION 15 Regulatory Information**

**SECTION 16 Additional Information**

Conditions aggravated/target organs: Corrosive! Persons with preexisting skin, eye and respiratory disorders may be more susceptible. Acute: Severe irritation or burns to skin, eyes, respiratory tract and digestive tract. Chronic: Dermatitis, erosion of teeth, eye damage.

Flammability

Health

Reactivity

Revisions

NFPA

0.1

The information herein is believed to be accurate and is offered in good faith for the user's consideration and investigation. No warranty either expressed or implied is made for the completeness or accuracy of the information whether originating from the above mentioned company or not. Users of this material should satisfy themselves by independent investigation of current scientific and medical knowledge that the material can be used safely.