



Material Safety Data Sheet

U.S. Department of Labor

May be used to comply with OSHA's Hazard Communication Standard, 29 CFR 1910.1200.

Occupational Safety and Health Administration
(Non-Mandatory Form) Form Approved OMB No. 1218-0072

Standard must be consulted for specific requirements.

IDENTITY (as Used on Label and List)

**HYDROCHLORIC ACID 31-37%
(20° - 22° be).**

ITEM #
MULTI

MSDS #
1910

Note: Blank spaces are not permitted.
If any item is not applicable or no
information is available, the space must
be marked to indicate that.

Section I

Manufacturer's name

PVS NOLWOOD CHEMICALS, INC.

Address (Number, Street, City, State and ZIP Code)

9000 Hubbell Avenue

Detroit, MI. 48228

Emergency telephone number

CHEMTREC (800) 424-9300

Telephone Number for Non-Emergency Information ONLY

(800) 284-9735

Date Prepared

04/21/06

Date Revised

12/4/08

Section II—Hazardous Ingredients/Identity Information (29 CFR 1910.1200)

Composition/Information on Ingredients (Specific Chemical Identity, Common Name(s))	CAS Number	OSHA PEL	ACGIH TLV	Percent	Hazardous
HYDROCHLORIC ACID <small>*(see identity above)</small>	7647-01-0	5 ppm 7 mg/m ³ , ceiling	5 ppm 7 mg/m ³ , ceiling	31-37	YES
WATER	7732-18-5	N/A	N/A	63-69	NO

Section III—Physical/Chemical Characteristics

Boiling Point	140°F to 221°F (60°C to 105°C)	Specific Gravity (H ₂ O = 1)	1.067 to 1.083 @ 20°C
Vapor Pressure (mm Hg)	Not Available	Melting Point	Not Available
Vapor Density (AIR = 1)	Not Available	Evaporation Rate (Butyl Acetate = 1)	Not Available
Solubility in Water	100% by weight		
Appearance and Odor	Clear, Light Yellow, Pungent, Characteristic odor		

Section IV—Fire and Explosion Hazard Data

Flash Point (Method Used)	N/A	Flammable Limits	N/A	LEL	N/A	UEL	N/A
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Extinguishing Media

Material does not burn. Use any means suitable for extinguishing the surrounding fire.

Special Fire Fighting Procedures

In the event of a fire, wear full protective clothing and use NIOSH/MSHA self-contained breathing apparatus and full protective equipment with full facepiece operated in the pressure demand or other positive pressure mode.

Unusual Fire and Explosion Hazards

Not considered to be an explosion hazard.

Section V—Reactivity Data

Stability

Stable under ordinary conditions of use and storage.

Conditions to Avoid

See Incompatibility, below

Incompatibility (Materials to Avoid)

Avoid contact with alkali metals or other active metals and certain of their compounds. Do not add water directly to the product. The product may be added to water with mixing and dilution.
Reacts with metals with the evolution of hydrogen which when mixed with air may result in fire or explosion if ignited. Chlorine gas may be released by mixing with strong oxidizers.

Hazardous Decomposition or Byproducts

Generates toxic and irritating gases at high temperatures.

Hazardous Polymerization

Will not occur

Section VI—Health Hazard Data

Route(s) of Entry**Inhalation?**

See below

Skin?

Yes

Ingestion?

Yes

Health Hazards (Acute and Chronic)

Inhalation is not an expected hazard unless heated to high temperature or misted. Mist or vapor inhalation can cause irritation to the nose, throat, and upper respiratory tract. Severe exposures can lead to a chemical pneumonitis.

Carcinogenicity

This product does not contain any substances that are considered by OSHA, NTP, IARC, or ACGIH to be "probable" or "suspected" human carcinogens.

Signs and Symptoms of Exposure

EYES: Contact rapidly causes severe irritation of the eyes and eyelids. If not quickly removed by thorough irrigation with water, there may be prolonged or permanent visual impairment or total loss of sight. Hydrogen Chloride gas escaping from the aqueous solution is immediately irritating.

SKIN: Contact may cause burns and tissue destruction.

INGESTION: Can cause severe burns to the mucous membranes of the digestive tract.

INHALATION: Breathing gas, fog, mist or spray may result in coughing and a burning or choking sensation in the throat. If inhaled deeply, fluid may collect in the lungs (edema). Prolonged or repeated exposure to concentrations in excess of the exposure limits may cause discoloration of teeth.

Medical Conditions Generally Aggravated by Exposure

Pre-existing disorders affecting target organs.

Emergency and First Aid Procedures

Emergency Overview: CORROSIVE. CAUSES SEVERE BURNS TO EYES, SKIN, AND DIGESTIVE TRACT. SEVERELY IRRITATING TO RESPIRATORY TRACT, EYES, AND SKIN. MAY CAUSE IRRITATION OF DIGESTIVE TRACT. MAY CAUSE DISCOLORATION OF TEETH.

INHALATION: Remove to fresh air. If breathing is difficult, have a trained person administer oxygen. If respiration stops, have a trained person give artificial respiration. Call a physician immediately.

INGESTION: If swallowed, DO NOT INDUCE VOMITING. Give large quantities of water. Never give anything by mouth to an unconscious person. If vomiting occurs spontaneously, keep airway clear and give more water. Get medical attention immediately.

SKIN CONTACT: Immediately flush skin with plenty of water while removing contaminated clothing and shoes. Call a physician immediately. Wash clothing before reuse. Get medical attention as soon as possible.

EYE CONTACT: IMMEDIATELY FLUSH EYES WITH A DIRECTED STREAM OF WATER for at least 15 minutes, forcibly holding the eyelids apart to ensure complete eye surface is thoroughly rinsed. Washing eyes within several seconds is essential to achieve maximum effectiveness. Get medical attention immediately.

Section VII—Precautions for Safe Handling and Use

Steps to Be Taken in Case Material Is Released or Spilled

Evacuate unnecessary personnel. Keep unprotected personnel upwind of the spill area. Contain spilled material with dike to prevent entry into sewers or waterways. Large spills should be removed by vacuum truck. Smaller spills may be soaked up and neutralized with soda ash or other suitable material and treated in accordance with all applicable regulations.

Waste Disposal Method

Dispose of waste at an approved waste disposal facility according to currently applicable laws and regulations, and product characteristics at time of disposal. US regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities.

Precautions to Be Taken in Handling and Storing

Keep in a tightly closed container. Protect from physical damage. Open container carefully to avoid spurling. Store in a cool, dry, ventilated area away from sources of heat, moisture, incompatibles, and direct sunlight. Corrosive to mild steel. Containers of this material may be hazardous when empty since they retain product residues (i.e., vapors, liquid). Observe all warnings and precautions listed for the product.

Section VIII—Control Measures

Respiratory Protection (Specify Type)

Use of engineering controls to eliminate worker exposure to fumes or mists is strongly recommended. If the exposure limit is exceeded, a full-facepiece respirator with high efficiency dust/mist filter may be worn up to 50 times the exposure limit or the maximum use concentration specified by the regulatory agency or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure supplied air respirator. **WARNING:** Air purifying respirators do not protect workers in oxygen-deficient atmospheres.

Ventilation

A system of local and/or general exhaust is strongly recommended to keep exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of fumes/mists into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent revision, for details.

Protective Clothing or Equipment

SKIN PROTECTION: Wear impervious protective clothing, including boots, gloves, suitable chemical splash protection (i.e., rubber overalls and jacket buttoned to the collar), as appropriate to prevent skin contact.
EYE PROTECTION: Use chemical safety goggles and full face shield where splashing is possible. Maintain eye wash fountain and quick drench facilities (safety shower) in immediate work area.

Work/Hygienic Practices

All food/smoking materials should be kept in a separate area away from the storage/use location. Eating, drinking and smoking should be prohibited in areas where there is a potential for significant exposure to this material.

Section IX—Transport Information

DOT Shipping Description

Proper Shipping Name: HYDROCHLORIC ACID
Hazard Class: 8
UN/NA: UN1789
Packing Group: PGII

Section X—Regulatory Information

Chemical Inventory Status - Part 1

<u>Ingredient</u>	<u>TSCA</u>
Hydrochloric Acid (7647-01-0)	YES
Water (7732-18-5)	YES

Federal, State, and International Regulations

<u>Ingredient</u>	<u>SARA 302</u>		<u>SARA 313</u>	
	<u>RQ</u>	<u>TPQ</u>	<u>List</u>	<u>Chemical Catg.</u>
Hydrochloric Acid (7647-01-0)	No	No	No	No
Water (7732-18-5)	No	No	No	No
