

Typical Custodial Chemicals

Flammable	Corrosive	Toxic	Reactive
Solvents	Pools	Pesticides Roundup Wasps Ants	Acids Pool Drain Bowl
Finishes	Cleaners Bowl Bath Drain	Disinfectant	Bases Pool Drain Bowl
Cleaners	Bleach	Solvents	Bleach
Oil Paints	Acids	Spot Remover	Fertilizers
Strippers	Bases	Grounds Chemicals	Vinegar
Glues			
Comp. Gas			
Sprays			
Fillers			
Gas&Fuel			
Spot Remover			
Degreasers			

Labeling Requirements for Changing Containers

■ Contents

Chemical Name

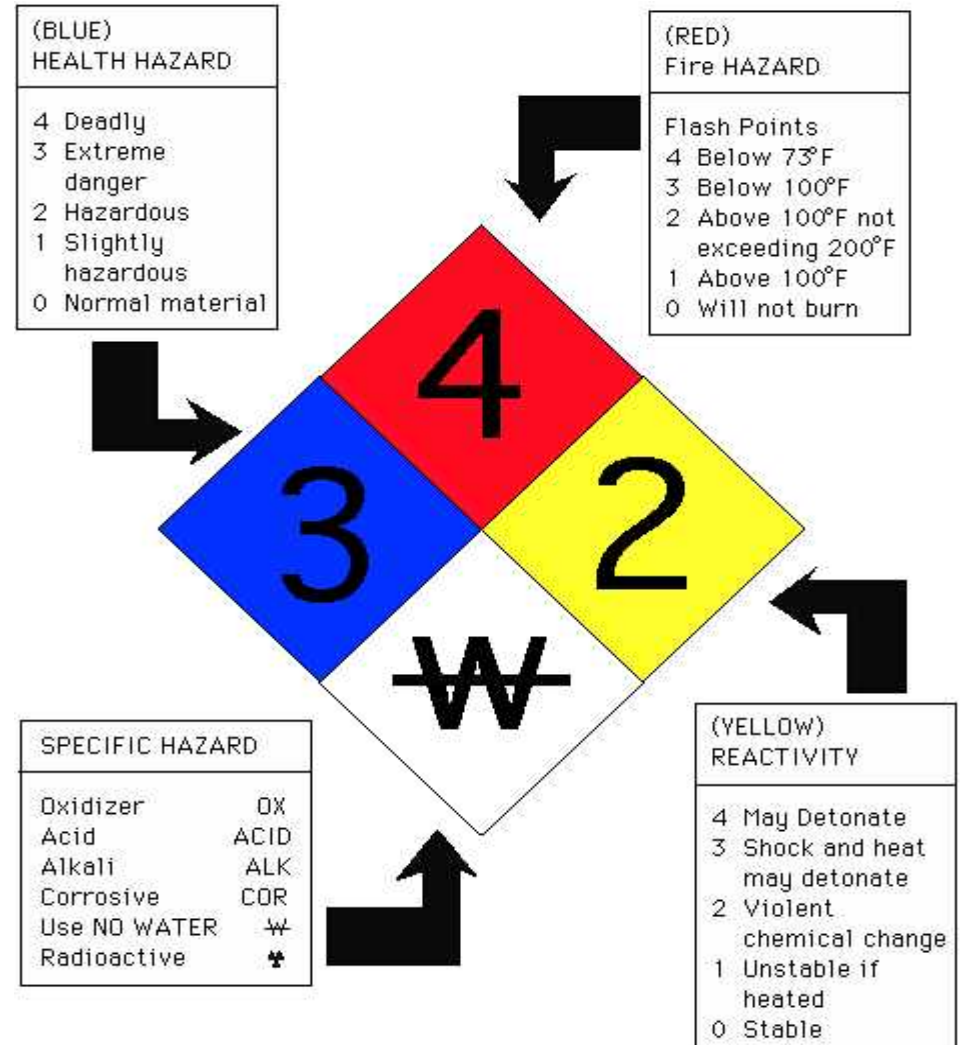
Hazard Warning

■ Adding the date is a good idea

■ Replace if Smearred/Faded

■ Don't need to label if YOU will use it all up on one job

NFPA LABELING SYSTEM



Spills

Should I run away?

Gas generated
Smoke
Noise

Assess the situation

Material
Size of spill
Location
Simple or Complex?

Do I need help?

Call office/boss
Don't re-enter alone
Secure area
911?

How do I pick it up?

Protect yourself
Find a container
Get it in container
Mops, towels, pigs...
Kitty litter, broom, vacuum
Whatever you use is
contaminated

Dispose of the container as HW

Wiley Coyote Method

1) What is the hazard?

- a) Burn or explode?
- b) Acute or Chronic?

2) How can it bite me?

- a) Route of Entry?
- b) More than one?

3) How do I prevent that?

- a) PPE?
- b) Ventilation?
- c) ???

Storage Tips

Cool Room

Able to secure

Keep other materials away

Store similar chemicals together

Off the floor

Keep below eye level

Use Earthquake strips

Put flammables in a cabinet

Chain Compressed Gas

Keep it CLEAN

Remove leakers

Material Safety Data Sheets (MSDS) Fact Sheet

[OSHA Standard 1910.1200 Section G](#)

ANSI Standard Z400-1

OSHA requires chemical manufacturers and importers to obtain or develop a material safety data sheet for each hazardous chemical they produce or import. Employers must have a material safety data sheet, accessible to employees, in the workplace for each hazardous chemical used. Electronic access, microfiche, and other alternatives to maintaining paper copies of the material safety data sheets are permitted as long as no barriers to immediate employee access in each workplace are created by these options.

MSDS Contents - Each material safety data sheet must be in English (although employers may maintain copies in other languages), and must contain at least the following information:

- The identity used on the label
- Chemical & common name
- Ingredients & common names
- Physical and chemical characteristics - example: vapor pressure, flash point, etc.
- Physical hazards including the potential for fire, explosion, and reactivity
- Health hazards including signs and symptoms of exposure, and any aggravated medical conditions
- Primary route of entry into the body
- Exposure Limits - OSHA PEL, ACGIH TLV
- Carcinogen status - cancer-causing material
- Handling & Usage Precautions
- Protective measures during repair and maintenance of contaminated equipment
- Procedures for clean up of spills and leaks. Control measures such as appropriate engineering controls, work practices, or personal protective equipment
- Emergency and first aid procedures
- Date of preparation or last change to MSDS
- Name, address and telephone number of the chemical manufacturer

Employees must know:

- Where MSDSs are kept
- Major points for each chemical
- To check MSDS for more information
- How to locate emergency information
- How to follow MSDS safety precautions

ANSI Standard

ANSI standard Z400.1 provides standard format guidance for the design and organization of information on MSDSs

Section 1: Chemical Product & Company Information - provides the chemical name on the label to the MSDS. Also listed are the name, address and the phone number of the company, manufacturer or distributor who provides the chemical.

Section 2: Composition & Ingredients - identifies all hazardous ingredients, OSHA permissible exposure limits (PEL) & ACGIH (American Conference of Governmental Industrial Hygienists) Threshold Limit Values (TLVs).

Section 3: Hazard Identification - information about the health effects of exposure. Description of the material appearance, potential symptoms & health effects, routes of entry & target organs.

Section 4: First Aid - Provides first aid procedures for each route of entry.

Section 5: Fire-Fighting - information on the explosive & fire properties, extinguishing agents and items and general fire-fighting information.

Section 6: Accidental Release - information on material spill response, containment and required spill response PPE.

Section 7: Handling and Storage - information about chemical storage & handling and measures to prevent over-exposure.

Section 8: Exposure Controls & Personal Protection - engineering controls & personal protective equipment to reduce chemical exposure.

Section 9: Physical & Chemical Properties - this section tells about the physical and chemical properties of the chemical. Characteristics include appearance, odor, physical state, pH, vapor pressure, vapor density, boiling point, freezing/melting point, solubility in water and specific gravity or density.

Section 10: Stability & Reactivity - all potentially hazardous chemical reactions are identified in this section. Includes information on chemical stability, conditions to avoid, incompatibility, hazardous decomposition and hazardous polymerization.

Section 11: Toxicological Information – provides information such as acute data, carcinogen potential, reproductive effects, target organ effects, and other physiological aspects

Section 12: Ecological Information - information concerning the environmental impact if a chemical is released into the environment.

Section 13: Disposal Considerations - information concerning proper chemical disposal, recycling and reclamation.

Section 14: Transport Information - shipping information includes the hazardous materials description, hazard class and the identification number (UN or NA numbers).

Section 15: Regulatory Information - provides information about applicable federal regulations. Examples include OSHA, TSCA (Toxic Substance Control Act), CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act), SARA Title III (Superfund Amendments and Reauthorization Act).

Section 16: Additional Information - provides other information about the chemical such as hazard ratings, preparation and revisions of the MSDS, and label information.

pH Values for Common Materials

Acid rain	5.2
Ammonia water	11.6
Apple juice	2.9 – 3.3
Baking soda	8.0
Borax	9.2
Distilled water	7.0
Drinking water	6.5 – 8
Eggs	7.6 – 8
Grapes	3.5 – 4.5
Grapefruit juice	3 – 3.3
Human blood	7.35 – 7.45
Human saliva	6.3 – 6.6
Hydrochloric acid	0.1
Lemon juice	2.3
Lime	1.8 – 2
Limewater	12.4
Milk of magnesia	10.5
Normal rain	5.7
Orange juice	3 – 4
Sea water	7.36 – 8.21
Soda lye	14.0
Sour milk	4.3 – 4.5
Stomach juice	1 – 3
Sulfuric acid	0.3
Tomato & tomato juice	4.2
Vinegar	2.4 – 3.4
White bread	5 – 6

Toxicity Table

Experimental LD50 Dose	Degree of Toxicity	Probable Lethal Dose for 150 # person
<1.0 mg/kg	Dangerously Toxic	A taste (a drop)
1-50 mg/kg	Seriously Toxic	A Teaspoonful (5 ml)
50-500 mg/kg	Highly Toxic	An Ounce (30 ml)
500-5000 mg/kg	Moderately Toxic	A Pint (500 ml)
5-15 gm/kg	Slightly Toxic	A Quart (1 liter)

Oral Lethal Doses for Common Substances

Aspirin	1,000 mg/kg
Caffeine	192 mg/kg
DDT	113 mg/kg
Ethyl Alcohol	7060 mg/kg
Nicotine	53 mg/kg
Table Salt	3,000 mg/kg
Methamphetamine	143 mg/kg

Subcutaneous Lethal Doses for Various Venoms

Taipan	.025 mg/kg
Black Mamba	.320 mg/kg
King Cobra	.350 mg/kg
Western Diamondback Rattlesnake	4.2 mg/kg
Desert Scorpion	198 mg/kg
Black Widow	.9 mg/kg

True or False? Answer the following by placing a T or F in the blank provided:

1. _____ I should pour water on to an acid spill in order to dilute it
2. _____ I should keep my work area clean and orderly
3. _____ If I transfer some bleach into a spray bottle I do not have to label it if I am going to use it all up on that specific job.
4. _____ I never have to wear gloves when I work with hazardous materials because I wash my hands
5. _____ If I don't know what a chemical is I should just smell it to see if it is ammonia or bleach
6. _____ I should read the container label and the MSDS before working with a new chemical.
7. _____ The label will tell me if I can store a chemical next to another chemical
8. _____ Soap and water will wash off any chemical
9. _____ When mixing chemicals I should follow label directions exactly
10. _____ If a little bleach is good at removing bowl stains, and my regular bowl cleaner is not so good, I can mix them together to make a really good bowl cleaner.

Fill in the blank:

11. Who would you report the incident to if you got exposed to a chemical on the job?

Which answer is the most correct?

12. _____ Which of the following will prevent or reduce your risk of exposure to chemicals?
- a. washing hands with soap and water after exposure
 - b. wearing protective gloves when exposure is possible
 - c. reading the label and following label instructions
 - d. treating all chemicals with care and treating the safety recommendations seriously.
 - e. all of the above will reduce your risk of exposure.

Material Safety Data Sheet

Ethanol, Absolute

ACC# 89308

Section 1 - Chemical Product and Company Identification

MSDS Name: Ethanol, Absolute

Catalog Numbers: NC9602322

Synonyms: Ethyl Alcohol; Ethyl Alcohol Anhydrous; Ethyl Hydrate; Ethyl Hydroxide; Fermentation Alcohol; Grain Alcohol; Methylcarbinol; Molasses Alcohol; Spirits of Wine.

Company Identification:

Fisher Scientific
1 Reagent Lane
Fair Lawn, NJ 07410

For information, call: 201-796-7100

Emergency Number: 201-796-7100

For CHEMTREC assistance, call: 800-424-9300

For International CHEMTREC assistance, call: 703-527-3887

Section 2 - Composition, Information on Ingredients

CAS#	Chemical Name	Percent	EINECS/ELINCS
64-17-5	Ethanol	ca.100	200-578-6

Section 3 - Hazards Identification

EMERGENCY OVERVIEW

Appearance: colorless clear liquid. Flash Point: 16.6 deg C.

Warning! Causes severe eye irritation. **Flammable liquid and vapor.** Causes respiratory tract irritation. This substance has caused adverse reproductive and fetal effects in humans. May cause central nervous system depression. May cause liver, kidney and heart damage. Causes moderate skin irritation.

Target Organs: Kidneys, heart, central nervous system, liver.

Potential Health Effects

Eye: Causes severe eye irritation. May cause painful sensitization to light. May cause chemical conjunctivitis and corneal damage.

Skin: Causes moderate skin irritation. May cause cyanosis of the extremities.
Ingestion: May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systemic toxicity with acidosis. May cause central nervous system depression, characterized by excitement, followed by headache, dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma and possible death due to respiratory failure.
Inhalation: Inhalation of high concentrations may cause central nervous system effects characterized by nausea, headache, dizziness, unconsciousness and coma. Causes respiratory tract irritation. May cause narcotic effects in high concentration. Vapors may cause dizziness or suffocation.
Chronic: May cause reproductive and fetal effects. Laboratory experiments have resulted in mutagenic effects. Animal studies have reported the development of tumors. Prolonged exposure may cause liver, kidney, and heart damage.

Section 4 - First Aid Measures

Eyes: Get medical aid. Gently lift eyelids and flush continuously with water.
Skin: Get medical aid. Wash clothing before reuse. Flush skin with plenty of soap and water.
Ingestion: Do not induce vomiting. If victim is conscious and alert, give 2-4 cupfuls of milk or water. Never give anything by mouth to an unconscious person. Get medical aid.
Inhalation: Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid. Do NOT use mouth-to-mouth resuscitation.
Notes to Physician: Treat symptomatically and supportively. Persons with skin or eye disorders or liver, kidney, chronic respiratory diseases, or central and peripheral nervous system diseases may be at increased risk from exposure to this substance.
Antidote: None reported.

Section 5 - Fire Fighting Measures

General Information: Containers can build up pressure if exposed to heat and/or fire. As in any fire, wear a self-contained breathing apparatus in pressure-demand, MSHA/NIOSH (approved or equivalent), and full protective gear. Vapors may form an explosive mixture with air. Vapors can travel to a source of ignition and flash back. Will burn if involved in a fire. Flammable Liquid. Can release vapors that form explosive mixtures at temperatures above the flashpoint. Use water spray to keep fire-exposed containers cool. Containers may explode in the heat of a fire.
Extinguishing Media: For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam. For large fires, use water spray, fog, or alcohol-resistant foam. Use water spray to cool fire-exposed containers. Water may be ineffective. Do NOT use straight streams of water.
Flash Point: 16.6 deg C (61.88 deg F)
Autoignition Temperature: 363 deg C (685.40 deg F)

Explosion Limits, Lower:3.3 vol %

Upper: 19.0 vol %

NFPA Rating: (estimated) Health: 2; Flammability: 3; Instability: 0

Section 6 - Accidental Release Measures

General Information: Use proper personal protective equipment as indicated in Section 8.

Spills/Leaks: Absorb spill with inert material (e.g. vermiculite, sand or earth), then place in suitable container. Remove all sources of ignition. Use a spark-proof tool. Provide ventilation. A vapor suppressing foam may be used to reduce vapors.

Section 7 - Handling and Storage

Handling: Wash thoroughly after handling. Use only in a well-ventilated area. Ground and bond containers when transferring material. Use spark-proof tools and explosion proof equipment. Avoid contact with eyes, skin, and clothing. Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. Keep away from heat, sparks and flame. Avoid ingestion and inhalation. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames.

Storage: Keep away from heat, sparks, and flame. Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Do not store near perchlorates, peroxides, chromic acid or nitric acid.

Section 8 - Exposure Controls, Personal Protection

Engineering Controls: Use explosion-proof ventilation equipment. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Exposure Limits

Chemical Name	ACGIH	NIOSH	OSHA - Final PELs
Ethanol	1000 ppm TWA	1000 ppm TWA; 1900 mg/m ³ TWA 3300 ppm IDLH	1000 ppm TWA; 1900 mg/m ³ TWA

OSHA Vacated PELs: Ethanol: 1000 ppm TWA; 1900 mg/m³ TWA

Personal Protective Equipment

Eyes: Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

Skin: Wear appropriate protective gloves to prevent skin exposure.

Clothing: Wear appropriate protective clothing to prevent skin exposure.

Respirators: A respiratory protection program that meets OSHA's 29 CFR 1910.134 and ANSI Z88.2 requirements or European Standard EN 149 must be followed whenever workplace conditions warrant a respirator's use.

Section 9 - Physical and Chemical Properties

Physical State: Clear liquid

Appearance: colorless

Odor: Mild, rather pleasant, like wine or whis

pH: Not available.

Vapor Pressure: 59.3 mm Hg @ 20 deg C

Vapor Density: 1.59

Evaporation Rate: Not available.

Viscosity: 1.200 cP @ 20 deg C

Boiling Point: 78 deg C

Freezing/Melting Point: -114.1 deg C

Decomposition Temperature: Not available.

Solubility: Miscible.

Specific Gravity/Density: 0.790 @ 20°C

Molecular Formula: C₂H₅OH

Molecular Weight: 46.0414

Section 10 - Stability and Reactivity

Chemical Stability: Stable under normal temperatures and pressures.

Conditions to Avoid: Incompatible materials, ignition sources, excess heat, oxidizers.

Incompatibilities with Other Materials: Strong oxidizing agents, acids, alkali metals, ammonia, hydrazine, peroxides, sodium, acid anhydrides, calcium hypochlorite, chromyl chloride, nitrosyl perchlorate, bromine pentafluoride, perchloric acid, silver nitrate, mercuric nitrate, potassium-tert-butoxide, magnesium perchlorate, acid chlorides, platinum, uranium hexafluoride, silver oxide, iodine heptafluoride, acetyl bromide, disulfuryl difluoride, tetrachlorosilane + water, acetyl chloride, permanganic acid, ruthenium (VIII) oxide, uranyl perchlorate, potassium dioxide.

Hazardous Decomposition Products: Carbon monoxide, irritating and toxic fumes

and gases, carbon dioxide.

Hazardous Polymerization: Will not occur.

Section 11 - Toxicological Information

RTECS#:

CAS# 64-17-5: KQ6300000

LD50/LC50:

CAS# 64-17-5:

Draize test, rabbit, eye: 500 mg Severe;
Draize test, rabbit, eye: 500 mg/24H Mild;
Draize test, rabbit, skin: 20 mg/24H Moderate;
Inhalation, mouse: LC50 = 39 gm/m³/4H;
Inhalation, rat: LC50 = 20000 ppm/10H;
Oral, mouse: LD50 = 3450 mg/kg;
Oral, rabbit: LD50 = 6300 mg/kg;
Oral, rat: LD50 = 7060 mg/kg;
Oral, rat: LD50 = 9000 mg/kg; <br.

Carcinogenicity:

CAS# 64-17-5: Not listed by ACGIH, IARC, NTP, or CA Prop 65.

Epidemiology: Ethanol has been shown to produce fetotoxicity in the embryo or fetus of laboratory animals. Prenatal exposure to ethanol is associated with a distinct pattern of congenital malformations that have collectively been termed the "fetal alcohol syndrome".

Teratogenicity: Oral, Human - woman: TDLo = 41 gm/kg (female 41 week(s) after conception) Effects on Newborn - Apgar score (human only) and Effects on Newborn - other neonatal measures or effects and Effects on Newborn - drug dependence.

Reproductive Effects: Intrauterine, Human - woman: TDLo = 200 mg/kg (female 5 day(s) pre-mating) Fertility - female fertility index (e.g. # females pregnant per # sperm positive females; # females pregnant per # females mated).

Neurotoxicity: No information available.

Mutagenicity: DNA Inhibition: Human, Lymphocyte = 220 mmol/L.; Cytogenetic Analysis: Human, Lymphocyte = 1160 gm/L.; Cytogenetic Analysis: Human, Fibroblast = 12000 ppm.; Cytogenetic Analysis: Human, Leukocyte = 1 pph/72H (Continuous).; Sister Chromatid Exchange: Human, Lymphocyte = 500 ppm/72H (Continuous).

Other Studies: Standard Draize Test(Skin, rabbit) = 20 mg/24H (Moderate)
Standard Draize Test: Administration into the eye (rabbit) = 500 mg (Severe).

Section 12 - Ecological Information

Ecotoxicity: Fish: Rainbow trout: LC50 = 12900-15300 mg/L; 96 Hr; Flow-through @ 24-24.3°C Fish: Rainbow trout: LC50 = 11200 mg/L; 24 Hr; Fingerling

(Unspecified)Bacteria: Phytobacterium phosphoreum: EC50 = 34900 mg/L; 5-30 min; Microtox test When spilled on land it is apt to volatilize, biodegrade, and leach into the ground water, but no data on the rates of these processes could be found. Its fate in ground water is unknown. When released into water it will volatilize and probably biodegrade. It would not be expected to adsorb to sediment or bioconcentrate in fish.

Environmental: When released to the atmosphere it will photodegrade in hours (polluted urban atmosphere) to an estimated range of 4 to 6 days in less polluted areas. Rainout should be significant.

Physical: No information available.

Other: No information available.

Section 13 - Disposal Considerations

Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. US EPA guidelines for the classification determination are listed in 40 CFR Parts 261.3. Additionally, waste generators must consult state and local hazardous waste regulations to ensure complete and accurate classification.

RCRA P-Series: None listed.

RCRA U-Series: None listed.

Section 14 - Transport Information

	US DOT	Canada TDG
Shipping Name:	Not reviewed.	No information available.
Hazard Class:		
UN Number:		
Packing Group:		

Section 15 - Regulatory Information

US FEDERAL

TSCA

CAS# 64-17-5 is listed on the TSCA inventory.

Health & Safety Reporting List

None of the chemicals are on the Health & Safety Reporting List.

Chemical Test Rules

None of the chemicals in this product are under a Chemical Test Rule.

Section 12b

None of the chemicals are listed under TSCA Section 12b.

TSCA Significant New Use Rule

None of the chemicals in this material have a SNUR under TSCA.

CERCLA Hazardous Substances and corresponding RQs

None of the chemicals in this material have an RQ.

SARA Section 302 Extremely Hazardous Substances

None of the chemicals in this product have a TPQ.

SARA Codes

CAS # 64-17-5: acute, chronic, flammable.

Section 313 No chemicals are reportable under Section 313.**Clean Air Act:**

This material does not contain any hazardous air pollutants.

This material does not contain any Class 1 Ozone depletors.

This material does not contain any Class 2 Ozone depletors.

Clean Water Act:

None of the chemicals in this product are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

STATE

CAS# 64-17-5 can be found on the following state right to know lists: California, New Jersey, Pennsylvania, Minnesota, Massachusetts.

California Prop 65

WARNING: This product contains Ethanol, a chemical known to the state of California to cause developmental reproductive toxicity.

California No Significant Risk Level: None of the chemicals in this product are listed.

European/International Regulations**European Labeling in Accordance with EC Directives****Hazard Symbols:**

F

Risk Phrases:

R 11 Highly flammable.

Safety Phrases:

S 16 Keep away from sources of ignition - No smoking.

S 33 Take precautionary measures against static discharges.

S 7 Keep container tightly closed.

S 9 Keep container in a well-ventilated place.

WGK (Water Danger/Protection)

CAS# 64-17-5: 0

Canada - DSL/NDSL

CAS# 64-17-5 is listed on Canada's DSL List.

Canada - WHMIS

This product has a WHMIS classification of B2, D2A.

Canadian Ingredient Disclosure List

CAS# 64-17-5 is listed on the Canadian Ingredient Disclosure List.

Section 16 - Additional Information

MSDS Creation Date: 7/27/1999

Revision #4 Date: 3/18/2003

The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes. In no event shall Fisher be liable for any claims, losses, or damages of any third party or for lost profits or any special, indirect, incidental, consequential or exemplary damages, howsoever arising, even if Fisher has been advised of the possibility of such damages.

MATERIAL SAFETY DATA SHEET**NFPA RATING:** Health = 2 Flammability = 0 Reactivity = 0**HMIS RATING:** Health = 2 Flammability = 0 Reactivity = 0**SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION****Manufacturer's Name:** CANBERRA CORPORATION **Product Name:** MILD BOWL & PORCELAIN CLEANER**Address:** 3610 Holland-Sylvania Rd.
Toledo, OH 43615**Date Prepared:** March 24, 1995**Prepared by:** Regulatory Affairs Department**Emergency Telephone No.:** (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Other information calls:** 419-841-6616<http://www.hillyard.com>**SECTION II -- INGREDIENTS/IDENTITY INFORMATION****Components****(Specific Chemical Identity:**

Common Name(s)	CAS #	OSHA PEL	ACGIH TLV	OTHER LIMITS	
				RECOMMENDED	%
Phosphoric Acid (1)	7664-38-2	N/A	1 mg/m ³	N/A	20.0
N-Alkyl Dimethylbenzyl Ammonium Chloride	68391-01-5	N/A	N/A	N/A	0.05
N-Alkyl Dimethylethylbenzyl Ammonium Chloride	68956-79-6	N/A	N/A	N/A	0.05

* This product contains the following chemicals subject to the reporting requirements of SARA Title III, Section 313 and 40 CFR Part 372: Phosphoric acid.

(1) Regulated by OSHA and the following states: CT, FL, IL, LA, MA, NJ, NY, PA, RI

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 212°F	Specific Gravity (H₂O = 1): 1.12
Vapor Pressure (mm Hg.): N/E	Percent Volatile by Volume (%): less than 75%
Vapor Density (AIR = 1): N/E	Evaporation Rate (ethyl ether = 1): N/E
Solubility in Water: Complete	Appearance and Odor: Pink color/Cherry fragrance

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA**Flash point:** None **Flammable Limits:** LEL = N/A UEL = N/A**Extinguishing Media:** Use water spray, CO₂, or foam.**Special Fire Fighting Procedures:** Products of combustion are toxic. Wear full body protective gear including NIOSH/MSHA approved self-contained breathing apparatus.**Unusual Fire and Explosion Hazards:** None**SECTION V -- PHYSICAL HAZARDS****Stability:** Stable **Conditions to Avoid:** N/A**Incompatibility (Materials to Avoid):** Reacts with strong alkalis, reactive metals (mild steel, aluminum). Do not mix with bleach, hypochlorites, or other chemicals.**Hazardous Decomposition Products or Byproducts:** Hydrogen gas; oxides of phosphorous.**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** N/A**SECTION VI -- HEALTH HAZARD DATA****Routes of entry:** Inhalation? Yes Skin? Yes Ingestion? Yes**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Causes eye damage and skin irritation. If sprayed, may irritate respiratory tract and mucous membranes.
2. Slightly toxic with repeated ingestion.

Chemical listed as Carcinogen or Potential Carcinogen:**National Toxicology Program =** No **I.A.R.C. Monographs =** No **OSHA =** No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI -- HEALTH HAZARD DATA continued

Signs and Symptoms of Exposure: Irritation and burning of tissue upon other than brief contact.

Medical Conditions Generally Aggravated by Exposure: Persons with pre-existing dermatitis may be more susceptible to the effects of this material.

Emergency and First Aid Procedures: **EYES:** Flush eyes with plenty of water for at least 15 minutes. Hold eyelids open while flushing. Get medical attention. **SKIN:** Wash off with soap and water. Remove contaminated clothing. If irritation persists, get medical attention. **INGESTION:** Do not induce vomiting. Give water, milk, or egg whites. Get medical attention immediately. Never give anything by mouth to an unconscious person. **INHALATION:** Move to fresh air. Get medical attention.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Wear appropriate personal protective equipment. Contain spill and collect in approved container. Ventilate area to dissipate fumes. Rinse with diluted bicarbonate solution to neutralize residue.

Waste Disposal Method: Waste material may be neutralized with diluted alkaline solution. Dispose of in accordance with local, state, and federal regulations. Triple rinse container, wrap and discard in trash or offer for recycling.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Use only according to label directions. Use with toilet bowl mop or applicator. Do not mix with other chemicals.

Other Precautions: Keep out of reach of children. Avoid contact with skin or eyes. Do not breath vapors, mist, or spray.

SECTION VIII -- CONTROL MEASURES:

Respiratory Protection (Specify Type): Not required under normal use. If sprayed, use NIOSH approved acid gas respirator.

Ventilation: **Local Exhaust** = As necessary to maintain TLV **Mechanical (General)** = As required

Special = N/A **Other** = N/A

Protective Gloves: Rubber **Eye Protection:** Face shield and/or chemical goggles

Other Protective Clothing or Equipment: Rubber apron and boots recommended. Eye wash.

Work / Hygienic Practices: Good housekeeping practices apply. Wash thoroughly after handling.

SECTION IX -- TRANSPORTATION INFORMATION:

DOT SHIPPING DESCRIPTION ON BILL OF LADING:

(in quart boxes by U.S. Highway) = Consumer Commodity ORM-D

Package Marking = Consumer Commodity ORM-D Label = None Hazard Class = not applicable

Package Group = not applicable

DOT SHIPPING DESCRIPTION ON BILL OF LADING:

(in 15 gallon drums) = Compound, cleaning, liquid, (Phosphoric Acid), 8, NA 1760, PG III

Package Marking = Compound, cleaning liquid (Phosphoric Acid), NA 1760

Package Label = Corrosive Hazard Class = 8 Package Group = III Placard = Corrosive

Hazardous waste characteristics:

Ignitability = not applicable; **Corrosivity** = applicable; **Reactivity** = not applicable

DISCLAIMER OF WARRANTIES

NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, OR OF ANY NATURE ARE MADE WITH RESPECT TO THE PRODUCT(S) OR INFORMATION CONTAINED IN THIS MATERIAL SAFETY DATA SHEET.

The information and recommendations contained in this Material Safety Data Sheet are supplied pursuant to 29 CFR 1910.1200 of the Occupational Safety and Health Standards Hazard Communication Rule. All information contained herein is presented in good faith and is believed to be appropriate and accurate.

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MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 2 Flammability = 0 Reactivity = 0
HMIS RATING: Health = 2 Flammability = 0 Reactivity = 0

SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION

Manufacturer's Name: CANBERRA CORPORATION **Product Name:** M-80 BOWL CLEANER
Address: 3610 Holland-Sylvania Road **Date Prepared:** March 24, 1995
 Toledo, OH 43615 **Prepared by:** Regulatory Affairs Department
Emergency Telephone No.: (800) 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.) **Other information calls:** 419-841-6616

<http://www.hillyard.com>

SECTION II – INGREDIENTS/IDENTITY INFORMATION**Components**

(Specific Chemical Identity: Common Name(s))	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrochloric Acid (1)	7647-01-0	5 ppm	5 ppm	N/A	9.50
N-Alkyl Dimethylbenzyl Ammonium Chloride	68391-01-5	N/A	N/A	N/A	0.05
N-Alkyl Dimethylethylbenzyl Ammonium Chloride	68956-79-6	N/A	N/A	N/A	0.05
Water	7732-18-5	none	none	N/A	---

(1) Regulated by OSHA and the following states: CA, FL, IL, MI, OH, PA, and TX

* This product contains the following chemical subject to reporting requirements of SARA Title III, Section 313, and 40 CFR Part 372: Hydrochloric Acid Gas Only.

SECTION III – PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 212°F **Specific Gravity (H₂O = 1):** 1.05
Vapor Pressure (mm Hg.): N/E **Percent Volatile by Volume (%):** less than 95%
Vapor Density (AIR = 1): N/E **Evaporation Rate (ethyl ether = 1):** N/E
Solubility in Water: Complete **Appearance and Odor:** Green Color/Floral Odor

SECTION IV – FIRE AND EXPLOSION HAZARD DATA

Flash point: None **Flammable Limits:** LEL = N/A UEL = N/A
Extinguishing Media: Water fog, CO₂, Dry Chemical.
Special Fire Fighting Procedures: Use water spray to cool containers and control vapors. Wear full body protective gear including NIOSH/MSHA approved self-contained breathing apparatus with a full face piece operated in positive pressure mode.
Unusual Fire and Explosion Hazards: Release of corrosive hydrogen chloride gas may result at elevated temperatures. Reacts with oxidizers, cyanides and sulfides to form poisonous gas. Reacts with most metals to form potentially explosive hydrogen gas.

SECTION V – PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** Contact with light metals may generate hydrogen gas.
Incompatibility (Materials to Avoid): Chlorine Bleach - Do not mix with other chemicals
Hazardous Decomposition Products or Byproducts: Chlorine Gas; Hydrogen Gas; Hydrogen Chloride Gas.
Hazardous Polymerization: Will not occur **Conditions to Avoid:** N/A

SECTION VI – HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Rapidly causes chemical burns to skin and eyes. May cause permanent damage.
2. No information on chronic health hazard is currently available.

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No **I.A.R.C. Monographs =** No **OSHA =** No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI – HEALTH HAZARD DATA cont.

Signs and Symptoms of Exposure: Irritation, burning of skin, mucous membranes and respiratory system. Corrosive action on contacted surface.

Medical Conditions Generally Aggravated by Exposure: Persons with respiratory ailments may find those conditions aggravated during personal use of this product.

Emergency and First Aid Procedures: EYE CONTACT: Immediately flush eyes with plenty of water for 15 minutes. Hold eyelids open while flushing. Get medical attention. **SKIN CONTACT:** Flush immediately with cool water. Wash with soap and water. Remove contaminated clothing. **INHALATION:** Remove to fresh air. Get medical attention.

INGESTION: Do not induce vomiting. Give milk, water or egg whites, and get medical attention immediately. Never give anything by mouth to an unconscious person. Keep warm.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Wear full personal protective equipment. Ventilate area to dissipate fumes. Contain spill and collect in approved container. Rinse with diluted bicarbonate solution to neutralize residue.

Waste Disposal Method: Forward waste material to a federally licensed hazardous waste treatment facility. Waste or unused material may be rendered non-hazardous by neutralization with diluted alkaline solution. **CAUTION:** Never add concentrated alkali to this product. Triple rinse container, wrap and discard in trash, or for larger containers, triple rinse and offer for recycling.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Use with toilet bowl mop or applicator. Use only according to label directions. Do not mix with other chemicals. Wear recommended protective equipment. Store in cool place.

Other Precautions: Keep out of reach of children. Avoid contact with skin or eyes. Avoid breathing of vapor.

SECTION VIII – CONTROL MEASURES

Respiratory Protection (Specify Type): Where required to maintain exposure levels below allowable limits, use a NIOSH approved respirator for Hydrogen Chloride gas or mists as applicable.

Ventilation:

Local Exhaust = Adequate to maintain TLV **Mechanical (General) =** As required **Special =** N/A **Other =** N/A

Protective Gloves: Rubber **Eye Protection:** Face shield and/or chemical goggles

Other Protective Clothing or Equipment: Rubber apron, boots, and long sleeves recommended. Eye wash.

Work / Hygienic Practices: Good housekeeping practices apply. Wash thoroughly after handling.

SECTION IX – TRANSPORTATION INFORMATION

DOT SHIPPING DESCRIPTION ON BILL OF LADING:

(in quart boxes by U.S. Highway) = Consumer Commodity ORM-D

Package Marking = Consumer Commodity ORM-D Label = None Hazard Class = not applicable

Package Group = Not applicable

EPA Hazardous waste characteristics:

Ignitability = not applicable; **Corrosivity =** yes; **Reactivity =** not applicable

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MATERIAL SAFETY DATA SHEET**NFPA RATING:** Health = 2 Flammability = 0 Reactivity = 0**HMIS RATING:** Health = 2 Flammability = 0 Reactivity = 0**SECTION I – IDENTITY AND MANUFACTURER'S INFORMATION****Manufacturer's Name:** CANBERRA CORPORATION **Product Name:** LIGHT ACID BOWL CLEANER**Address:** 3610 Holland-Sylvania Road **Date Prepared:** March 24, 1995

Toledo OH 43615

Prepared by: Regulatory Affairs Department**Emergency Telephone No.:** (800 424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)**Other information calls:** 419-841-6616<http://www.hillyard.com>**SECTION II – INGREDIENTS/IDENTITY INFORMATION****Components****(Specific Chemical Identity:**

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrochloric Acid (1)	7647-01-0	5 ppm	5 ppm	not applicable	9.0
N-Alkyl Dimethylbenzyl Ammonium Chloride	68424-85-1	not applicable	not applicable	not applicable	0.05
Water	7732-18-5	none	none	not applicable	---

(1) Regulated by OSHA and the following states: CA, FL, IL, MI, OH, PA, and TX.

* This product contains the following chemical subject to reporting requirements of SARA Title III, Section 313, and 40 CFR Part 372: Hydrochloric Acid Gas Only.

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 212°F	Specific Gravity (H₂O = 1): 1.04
Vapor Pressure (mm Hg.): no data	Percent Volatile by Volume (%): less than 95%
Vapor Density (Air = 1): no data	Evaporation Rate (ethyl ether = 1): N/E
Solubility in Water : Complete	Appearance and Odor: Blue color/Sassafras fragrance

SECTION IV – FIRE AND EXPLOSION HAZARD DATA**Flash point:** None **Flammable Limits:** LEL = N/A UEL = N/A**Extinguishing Media:** Water fog, CO₂, Dry Chemical**Special Fire Fighting Procedures:** Use water spray to cool containers and control vapors. Wear full body protective gear including NIOSH/MSHA approved self-contained breathing apparatus with a full face piece operated in positive pressure mode.**Unusual Fire and Explosion Hazards:** Release of corrosive hydrogen chloride gas may result at elevated temperatures. Reacts with oxidizers, cyanides and sulfides to form poisonous gas. Reacts with most metals to form potentially explosive hydrogen gas.**SECTION V – PHYSICAL HAZARDS****Stability:** Stable **Conditions to Avoid:** Contact with light metals may generate hydrogen gas.**Incompatibility (Materials to Avoid):** Chlorine bleach - do not mix with other chemicals.**Hazardous Decomposition Products or Byproducts:** Chlorine Gas; Hydrogen Gas; Hydrogen Chloride Gas**Hazardous Polymerization:** Will not occur **Conditions to Avoid:** N/A**SECTION VI – HEALTH HAZARD DATA****Routes of entry:** Inhalation? Yes Skin? Yes Ingestion? Yes**HEALTH HAZARDS (1. Acute and 2. Chronic)**

1. Rapidly causes chemical burns to skin and eyes. May cause permanent damage.

2. No information on chronic health hazard is currently available.

Chemical listed as Carcinogen or Potential Carcinogen:**National Toxicology Program =** No **I.A.R.C. Monographs =** No **OSHA =** No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI – HEALTH HAZARD DATA continued

Signs and Symptoms of Exposure: Irritation, burning of skin, mucous membranes and respiratory system. Corrosive action on contacted surface.

Medical Conditions Generally Aggravated by Exposure: Persons with respiratory ailments may find those conditions aggravated during personal use of this product.

Emergency and First Aid Procedures: **EYE CONTACT:** Immediately flush eye with plenty of water for 15 minutes. Hold eye lids open while flushing. Get medical attention. **SKIN CONTACT:** Flush skin immediately with cool water. Wash with soap and water. Remove contaminated clothing. **INHALATION:** Remove to fresh air. Get medical attention. **INGESTION:** Do not induce vomiting. Give milk, water or egg whites, and get medical attention immediately. Never give anything by mouth to an unconscious person. Keep warm.

SECTION VII – PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Wear full personal protective equipment. Ventilate area to dissipate fumes. Contain spill and collect in approved container. Rinse with dilute bicarbonate solution to neutralize residue.

Waste Disposal Method: Forward waste material to a Federally licensed hazardous waste treatment facility. Waste or unused material may be rendered non-hazardous by neutralization with diluted alkaline solution. **CAUTION:** Never add concentrated alkali to this product. Triple rinse container, wrap and discard in trash, or for larger containers, triple rinse and offer for recycling.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Use with toilet bowl mop or applicator. Use only according to label directions. Do not mix with other chemicals. Wear recommended protective equipment. Store in cool place.

Other Precautions: Keep out of reach of children. Avoid contact with skin or eyes. Avoid breathing of vapor.

SECTION VIII – CONTROL MEASURES

Respiratory Protection (Specify Type): Where required to maintain exposure levels below applicable limits, use a NIOSH approved respirator for Hydrogen Chloride gas or mists as applicable.

Ventilation:

Local Exhaust = Adequate to maintain TLV **Mechanical (General)** = As required

Special = N/A **Other** = N/A

Protective Gloves: Rubber **Eye Protection:** Face shield and/or chemical goggles

Other Protective Clothing or Equipment: Rubber apron, boots, and long sleeves recommended. Eye wash.

Work / Hygienic Practices: Good housekeeping practices apply. Wash thoroughly after handling.

SECTION IX – TRANSPORTATION INFORMATION

DOT SHIPPING DESCRIPTION ON BILL OF LADING:

(in quart boxes) = Consumer Commodity ORM-D

Package Marking = Consumer Commodity ORM-D Label = None Hazard Class = not applicable

Package Group = Not applicable

DOT SHIPPING DESCRIPTION ON BILL OF LADING:

(15 gallon drums) = Compound, cleaning, liquid, (Hydrochloric acid), 8, NA1760, PG III

Package Marking = Compound, cleaning liquid (Hydrochloric acid), NA1760

Package Label = Corrosive Hazard Class = 8 Package Group = III Placard = Corrosive

EPA Hazardous waste characteristics: **Ignitability** = not applicable; **Corrosivity** = yes; **Reactivity** = not applicable

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MATERIAL SAFETY DATA SHEET

NFPA RATING: Health = 3 Flammability = 0 Reactivity = 0

HMIS RATING: Health = 3 Flammability = 0 Reactivity = 0

SECTION I -- IDENTITY AND MANUFACTURER'S INFORMATION

Manufacturer's Name: CANBERRA CORPORATION **Product Name:** GERMICIDAL BOWL CLEANER

Address: 3610 Holland-Sylvania Rd. **Date Prepared:** March 24, 1995

Toledo, OH 43615

Prepared by: Regulatory Affairs Department

Emergency Telephone No.: (800)-424-9300 (Only in the event of chemical emergency involving a spill, leak, fire, exposure or accident involving chemicals.)

Other information calls: 419-841-6616

<http://www.hillyard.com>

SECTION II -- INGREDIENTS/IDENTITY INFORMATION**Components**

(Specific Chemical Identity:

Common Name(s)	CAS#	OSHA PEL	ACGIH TLV	OTHER LIMITS RECOMMENDED	%
Hydrochloric Acid (1)	7647-01-0	5 ppm	5 ppm	not applicable	23.0
N-Alkyl Dimethylbenzyl Ammonium Chloride	68424-85-1	N/A	N/A	not applicable	0.05
Water	7732-18-5	none	none	not applicable	---

(1) Regulated by OSHA and the following states: CA, FL, IL, MI, OH, PA, and TX.

* This product contains the following chemical subject to reporting requirements of SARA Title III, Section 313, and 40 CFR Part 372 : Hydrochloric Acid Gas Only.

SECTION III -- PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point: 212°F	Specific Gravity (H₂O = 1): 1.12
Vapor Pressure (mm Hg.): 30 mm @ 25°C	Percent Volatile by Volume (%): 95%
Vapor Density (Air = 1): N/E	Evaporation Rate (ethyl ether = 1): N/E
Solubility in Water : Complete	Appearance and Odor: White liquid/Pungent odor

SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash point: None **Flammable Limits:** LEL = N/A UEL = N/A

Extinguishing Media: Water fog, CO₂, Dry Chemical

Special Fire Fighting Procedures: Use water spray to cool containers and control vapors. Wear full body protective gear including NIOSH/MSHA approved self-contained breathing apparatus with a full face piece operated in positive pressure mode.

Unusual Fire and Explosion Hazards: Release of corrosive hydrogen chloride gas may result at elevated temperatures. Reacts with oxidizers, cyanides and sulfides to form poisonous gas. Reacts with most metals to form potentially explosive hydrogen gas.

SECTION V -- PHYSICAL HAZARDS

Stability: Stable **Conditions to Avoid:** Contact with light metals may generate hydrogen gas.

Incompatibility (Materials to Avoid): Chlorine Bleach - Do not mix with other chemicals.

Hazardous Decomposition Products or Byproducts: Chlorine Gas; Hydrogen Gas; Hydrogen Chloride Gas

Hazardous Polymerization: Will not occur **Conditions to Avoid:** N/A

SECTION VI -- HEALTH HAZARD DATA

Routes of entry: Inhalation? Yes Skin? Yes Ingestion? Yes

HEALTH HAZARDS (1. Acute and 2. Chronic)

1. Rapidly causes chemical burns to skin and eyes. May cause permanent damage.

2. No information on chronic health hazard is currently available.

Chemical listed as Carcinogen or Potential Carcinogen:

National Toxicology Program = No **I.A.R.C. Monographs =** No **OSHA =** No

This product has no carcinogens listed by IARC, NTP, NIOSH, or ACGIH as of this date, greater than or equal to 0.1%.

SECTION VI -- HEALTH HAZARD DATA cont.

Signs and Symptoms of Exposure: Irritation, burning of skin, mucous membranes and respiratory system. Corrosive action on contacted surface.

Medical Conditions Generally Aggravated by Exposure: Persons with respiratory ailments may find those conditions aggravated during personal use of this product.

Emergency and First Aid Procedures: EYE CONTACT: Immediately flush eye with plenty of water for 15 minutes. Hold eye lids open while flushing. Get medical attention. SKIN CONTACT: Flush skin immediately with cool water. Wash with soap and water. Remove contaminated clothing. INHALATION: Remove to fresh air. Get medical attention. INGESTION: Do not induce vomiting. Give milk, water or egg whites, and get medical attention immediately. Never give anything by mouth to an unconscious person. Keep warm.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps To Be Taken In Case Material Is Released Or Spilled: Wear full personal protective equipment. Ventilate area to dissipate fumes. Contain spill and collect in approved container. Rinse with dilute bicarbonate solution to neutralize residue.

Waste Disposal Method: Forward waste material to a Federally licensed hazardous waste treatment facility. Waste or unused material may be rendered non-hazardous by neutralization with dilute alkaline solution. CAUTION: Never add concentrated alkali to this product. Triple rinse container, wrap and discard in trash, or for larger containers, triple rinse and offer for recycling.

Precautions To Be Taken In Handling And Storing: Keep container closed when not in use. Use with toilet bowl mop or applicator. Use only according to label directions. Do not mix with other chemicals. Wear recommended protective equipment. Store in a cool place.

Other Precautions: Keep out of reach of children. Avoid contact with skin or eyes. Avoid breathing of vapor.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type): Where required to maintain exposure levels below allowable limits, use a NIOSH approved respirator for Hydrogen Chloride gas or mists as applicable.

Ventilation:

Local Exhaust – Adequate to maintain TLV **Mechanical (General)** = As required **Special** = N/A **Other** = N/A

Protective Gloves: Rubber **Eye Protection:** Face shield and/or chemical goggles

Other Protective Clothing or Equipment: Rubber apron, boots, and long sleeves recommended. Eye wash.

Work / Hygienic Practices: Good housekeeping practices apply. Wash thoroughly after handling.

SECTION IX - TRANSPORTATION INFORMATION

Applicable regulations: 49 CFR = yes; IMCO = yes; IATA = yes.

Proper shipping name for quarts: Consumer Commodity ORM-D

Proper shipping name for gallon and drums: Compound Cleaning Liquid (Hydrochloric Acid), 8, NA1760, II

UN No.: NA1760 **Limited Qty.:** not applicable **Hazard Class:** 8

Labels required: not required **DOT Exception:** not applicable

EPA Hazardous waste number/code: not listed

Hazardous waste characteristics:

Ignitability = not applicable; **Corrosivity** = applicable; **Reactivity** = not applicable.

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