



Safety Data Sheet  
According to the (US) Hazard Communication Standard (29 CFR 1910.1200)

**SECTION 1: PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name</b>	Ammonia Probe pH Indicator
<b>NCL Catalog Number</b>	<b>A-15Z</b>
<b>Product Description</b>	Laboratory chemical.
<b>Supplier</b>	
NCL of Wisconsin, Inc.	<b>Telephone:</b> 1-800-648-7836 <b>Fax:</b> 715-449-2454
P.O. Box 8	<b>Emergency Contact:</b> 1-800-424-9300 (Chemtrec)
Biramwood, WI 54414	<b>Email:</b> <a href="mailto:nclabs@nclabs.com">nclabs@nclabs.com</a>

**SECTION 2: HAZARDS IDENTIFICATION**

**Classification of the Substance or Mixture**

**GHS Classification**

Flammable Liquids	Category 3
Specific Target Organ Toxicity	Single Exposure Category 1



**Signal Word** Danger

**Hazard Statements**

H226	Flammable liquid and vapor.
H370	Causes damage to organs (central nervous system, optic nerve) (oral, dermal).

**Precautionary Statements**

P210	Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking.
P233	Keep container tightly closed.
P240	Ground and bond container and receiving equipment.
P241	Use explosion-proof electrical/ventilating/lighting equipment.
P242	Use non-sparking tools.
P243	Take action to prevent static discharges.
P260	Do not breathe mist, vapors, spray.
P264	Wash exposed skin thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water or shower.
P308+P311	IF exposed or concerned: Call a POISON CENTER or doctor.
P370+P378	In case of fire: Use carbon dioxide, powder, alcohol-resistant foam to extinguish.
P403+P235	Store in a well-ventilated place. Keep cool.
P405	Store locked up.
P501	Dispose of contents/containers to comply with federal, state, and local regulations.

**Other Hazards Not Contributing to the Classification**

None under normal conditions.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Chemical Identity** Not applicable

**Common Name** Not applicable

**Mixture**

Name	CAS #	Approximate %
Water	7732-18-5	49.84
Ethyl Alcohol	64-17-5	46.00
Thymolphthalein	125-20-2	0.16
Denaturants present in Ethyl Alcohol		
4-Methyl-2-pentanone	108-10-1	0.50
Ethyl Acetate	141-78-6	0.50
Methanol	67-56-1	2.50
Aliphatic Hydrocarbons	Unknown	0.50

**SECTION 4: FIRST AID MEASURES**

**Description of First Aid Measures**

**General First Aid Measures** Never give anything by mouth to an unconscious person. Seek medical advice if you feel unwell.

**If Inhaled** Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell.

**In Case of Skin Contact** Remove all contaminated clothing. Rinse skin with water/shower. Call a POISON CENTER or doctor/physician if you feel unwell.

**In Case of Eye Contact** Rinse carefully with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a POISON CENTER or doctor/physician if you feel unwell.

**If Swallowed** Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER or doctor if you feel unwell. Ingestion of large quantities: immediately take to the hospital.

**Most Important Symptoms/Effects Acute and Delayed**

**After Inhalation** Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties. Central nervous system depression. Symptoms similar to those listed under ingestion.

**After Skin Contact** Slight irritation.

**After Eye Contact** Redness of the eye tissue. Lacrimation. Irritation of the eye tissue on continuous exposure/contact.

**After Ingestion** Risk of aspiration pneumonia. Red skin. Body temperature rise. Damp/clammy skin. Excited/restless. Accelerated heart action. Central nervous system depression. Dizziness. Narcosis. Headache. Drunkenness. Nausea. Vomiting. Disturbed motor response. Coordination disorders. Visual disturbances. Impaired concentration. Delusions. Disturbed sensation of pain. Disturbances of heart rate. Disturbances of consciousness. Tremor. Cramps/uncontrolled muscular contractions. Dilated pupils.

**Chronic Symptoms** Repeated exposure/contact: Dry skin. Gastrointestinal complaints. Enlargement/affection of the liver. Change in the haemogramme/blood composition. Cardiac and blood circulation effects. High arterial pressure. Impairment of the nervous system. Behavioral disturbances. Mental confusion. Disturbed tactile sensibility. Tremor. Affection of the bone marrow. Affection of the endocrine system. Weakening of the immune system.

**Indication of Immediate Medical Attention and Special Treatment Needed**

Seek medical attention if exposed.

**SECTION 5: FIRE-FIGHTING MEASURES**

**Extinguishing Media**

**Suitable Extinguishing Media** Alcohol resistant foam. Dry powder. Carbon dioxide. Water spray. Sand.

**Unsuitable Extinguishing Media** Do not use a heavy water stream.

**Reactivity** Upon combustion: CO and CO<sub>2</sub> are formed. Reacts violently with many compounds; strong oxidizers. Violent to explosive reaction with some acids.

**Special Hazards Arising from the Chemical** Highly flammable. Gas/vapor flammable with air within explosion limits. May be ignited by sparks. Gas/vapors spreads at floor level.

**Special Protective Actions for Fire-Fighters** Wear self-contained breathing apparatus and protective clothing. Cool tanks/drums with water spray/remove them to safety. Do not move the load if exposed to heat.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions, Protective Equipment and Emergency Procedures**

**Personal Precautions** Use personal protective equipment (see section 8). Evacuate area of non-essential personnel. Eliminate ignition sources.

**Environmental Precautions** Prevent entry to sewers and public waters. Keep upwind. Mark the danger area. Consider evacuation. Seal off low-lying areas. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark and explosion proof appliances and lighting equipment. Keep containers closed. Wash contaminated clothing before reuse.

**Methods and Materials for Containment and Cleaning Up** Collect spillage with inert absorbent material. Store away from other materials. Wash clothing/equipment after handling. Ensure compliance with federal, state, and local regulations.

**SECTION 7: HANDLING AND STORAGE**

**Handling and Storage**

**Precautions for Safe Handling** Avoid contact with eyes and skin. Avoid breathing vapors. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Provide good ventilation in process area to prevent formation of vapor.

**Conditions for Safe Storage Including any Incompatibilities** Keep in original container tightly closed, stored in a cool, dry, ventilated area. Store away from sunlight, which can contribute to instability. Store away from heat sources, ignition sources, oxidizing agents, strong acids, water and moisture. Fireproof storeroom. Meet legal requirements.

**SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION**

**Control Parameters**

Ethyl Alcohol, Denatured (64-17-5)		
USA OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	1900 mg/m <sup>3</sup>
USA OSHA	OSHA PEL (TWA) (ppm)	1000 ppm

**Appropriate Engineering Controls** Material should be handled or transferred in a fume hood or with equivalent ventilation. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide adequate general and local exhaust ventilation.

**Individual Protection Measures** Avoid all unnecessary exposure.

**Skin Protection** Protective gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure to prevent skin contact.

**Eye Protection** Use chemical safety goggles and /or a full face shield where splashing is possible. Contact lenses should not be worn when working with this material. Maintain eye-wash fountain and quick-drench facilities in work area.

**Respiratory Protection** Wear appropriate mask.

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

<b>Physical State</b>	Liquid
<b>Color</b>	Colorless
<b>Odor</b>	Slight alcohol odor
<b>Odor Threshold</b>	100 ppm, 188 mg/m <sup>3</sup>
<b>pH</b>	Not determined
<b>Melting Point/Freezing Point</b>	-115°C/Not determined
<b>Initial Boiling Point and Boiling Range</b>	78°C
<b>Flash Point</b>	13°C
<b>Evaporation Rate</b>	Not determined
<b>Flammability (Solid, Gas)</b>	Not determined
<b>Upper/Lower Flammability/Explosive Limits</b>	3.3 – 19.0 vol % 67 – 290 g/m <sup>3</sup>
<b>Vapor Pressure</b>	59 hPa
<b>Vapor Density</b>	1.6 at 20°C
<b>Relative Density</b>	0.79
<b>Density</b>	790 kg/m <sup>3</sup>
<b>Solubility</b>	Soluble in water. Soluble in ether. Soluble in acetone. Soluble in chloroform. Soluble in oils/fats. Soluble in methanol. Soluble in acids.
<b>Partition Coefficient: n-octanol/water</b>	Not determined
<b>Auto-Ignition Temperature</b>	363°C
<b>Decomposition Temperature</b>	Not determined
<b>Viscosity</b>	Not determined

#### SECTION 10: STABILITY AND REACTIVITY

<b>Reactivity</b>	Upon combustion: CO and CO <sub>2</sub> are formed. Reacts violently with many compounds. Strong oxidizers: increased risk of fire/explosion. Violent explosive reaction with some acids.
<b>Chemical Stability</b>	Hygroscopic.
<b>Possibility of Hazardous Reactions</b>	No data available.
<b>Conditions to Avoid</b>	Extremely high or low temperatures. Heat and sunlight can contribute to instability. Open flame.
<b>Incompatible Materials</b>	Strong acids, strong bases, and strong oxidizers.
<b>Hazardous Decomposition Products</b>	When heated to decomposition, can emit toxic gases, carbon dioxide, and carbon monoxide. May release flammable gases.

#### SECTION 11: TOXICOLOGICAL INFORMATION

<b>Acute Toxicity</b>	Not classified
<b>Ethyl Alcohol, Denatured (64-17-5)</b>	
<b>LD50 oral rat</b>	10740 mg/kg
<b>LD50 dermal rabbit</b>	>16000 mg/kg

<b>Skin Corrosion/Irritation</b>	Not classified
<b>Serious Eye Damage/Irritation</b>	Not classified
<b>Respiratory or Skin Sensitization</b>	Not classified
<b>Germ Cell Mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	Not classified

<b>Ethyl Alcohol, Denatured (64-17-5)</b>	
<b>IARC Group</b>	1-Carcinogenic to humans

<b>Reproductive Toxicity</b>	Not classified
<b>Specific Target Organ Toxicity (Single Exposure)</b>	Causes damage to organs (central nervous system, optic nerve).
<b>Specific Target Organ Toxicity (Repeated Exposure)</b>	Not classified
<b>Aspiration Hazard</b>	Not classified
<b>Potential Adverse Human Health Effects and Symptoms</b>	Not classified
<b>Symptoms/Injuries After Inhalation</b>	Dry/sore throat. Coughing. Irritation of the respiratory tract. Irritation of the nasal mucous membranes. Respiratory difficulties. Central nervous system depression. Symptoms similar to those listed under ingestion.
<b>Symptoms/Injuries After Skin Contact</b>	Slight irritation.
<b>Symptoms/Injuries After Eye Contact</b>	Redness of the eye tissue. Lacrimation. Irritation of the eye tissue on continuous exposure/contact.
<b>Symptoms/Injuries After Ingestion</b>	Risk of aspiration pneumonia. Red skin. Body temperature rise. Damp/clammy skin. Excited/restless. Accelerated heart action. Central nervous system depression. Dizziness. Narcosis. Headache. Drunkenness. Nausea. Vomiting. Disturbed motor response. Coordination disorders. Visual disturbances. Impaired concentration. Delusions. Disturbed sensation of pain. Disturbances of heart rate. Disturbances of consciousness. Tremor. Cramps/uncontrolled muscular contractions. Dilated pupils.
<b>Chronic Symptoms</b>	Repeated exposure/contact: Dry skin. Gastrointestinal complaints. Enlargement/affection of the liver. Change in the haemogramme/blood composition. Cardiac and blood circulation effects. High arterial pressure. Impairment of the nervous system. Behavioral disturbances. Mental confusion. Disturbed tactile sensibility. Tremor. Affection of the bone marrow. Affection of the endocrine system. Weakening of the immune system.

## SECTION 12: ECOLOGICAL INFORMATION

<b>Toxicity</b>	Ecology – Water: Not harmful to fish. (LC50 96h >1000 mg/l). Not harmful to invertebrates (Daphnia). Slightly harmful to algae (EC50 72h 100-1000 mg/l). Not harmful to bacteria (EC50 >1000 mg/l). Inhibition of activated sludge.
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<b>Ethyl Alcohol, Denatured (64-17-5)</b>	
LC50 fishes 1	14200 mg/l (96 h; Pimephales promelas)
EC50 Daphnia 1	9300 mg/l (48h; Daphnia magna)
LC50 fish 2	13000 mg/l 96h; Salmo gairdneri (Oncorhynchus mykiss)
EC50 Daphnia 2	10800 mg/l (24; Daphnia magna)
Threshold limit other aquatic organisms 1	65 mg/l (72h; Protozoa)
Threshold limit algae 1	1450 mg/l (192 h; Microcystis aeruginosa)
Threshold limit algae 2	5000 mg/l (168 h; Scenedesmus quadricauda)

### Persistence and Degradability

<b>Ethyl Alcohol, Denatured (64-17-5)</b>	
Persistence and Degradability	Readily biodegradable in water. Biodegradable in the soil. No data on the mobility of the substance available.
Biochemical oxygen demand (BOD)	0.8-0.967 g O <sub>2</sub> /g substance
Chemical oxygen demand (COD)	1.70 g O <sub>2</sub> /g substance
ThOD	2.10 g O <sub>2</sub> /g substance
BOD (% of ThOD)	0.43 % ThOD

<b>Bioaccumulative Potential</b>	Log Pow: -0.31 Bioaccumulative potential: Low potential for bioaccumulation (Log Kow < 4)
<b>Mobility in Soil</b>	Surface tension: 0.022 N/m (20°C)
<b>Other Adverse Effects</b>	Avoid release to the environment.

## SECTION 13: DISPOSAL CONSIDERATIONS

### Methods of Disposal

**Disposal Recommendations** Dispose of contents/containers in accordance with federal, state, and local regulations.

**Ecology-Waste Materials** Avoid release to the surrounding environment.

**SECTION 14: TRANSPORT INFORMATION**

**UN Number** UN1170

**UN Shipping Name** Flammable liquids (contains ethanol).

**Transport Hazard Class(es)** 3

**Packing Group** II

**Environmental Hazards** Not applicable

**Transport in Bulk** 242

**Special Precautions** Not applicable

**SECTION 15: REGULATORY INFORMATION**

<b>Ethyl Alcohol (64-17-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Water (7732-18-5)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory
<b>Thymolphthalein (125-20-2)</b>
Listed on the United States TSCA (Toxic Substances Control Act) inventory

**SECTION 16: OTHER INFORMATION**

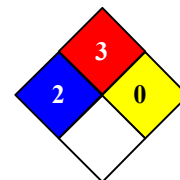
Revision Date: 01/07/2015

**NFPA Hazards**

**Health Hazard** 2: Intense or continued but not chronic exposure could cause temporary incapacitation or possible residual injury.

**Fire Hazard** 3: Liquids and solids that can be ignited under almost all ambient temperature conditions.

**Reactivity/Instability** 0: Normally stable, even under fire exposure conditions, and is not reactive with water.



**HMIS III Rating**

**Health** 2: Temporary or minor injury may occur.

**Flammability** 3: Materials capable of ignition under almost all normal temperature conditions.

**Physical Hazard** 0: Materials that are normally stable, even under fire conditions.

**Personal Protection** H

A-15Z	
Health	2
Flammability	3
Physical Hazard	0
Personal Protection	H

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**END OF SAFETY DATA SHEET**