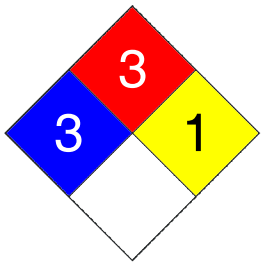
MATERIAL SAFETY DATA SHEET

1. Product and Company Identification

Product Name	**Soap Solution**
CAS #	Mixture
Product use	Water Testing Solution
Manufacturer	Pro Products LLC 7201 Engle Road Fort Wayne, IN 46804-5875 US Phone 260-483-2519 Emergency Phone: 1-800-424-9300 (CHEMTREC)

LEGEND HMIS/NFPA	
Severe	4
Serious	3
Moderate	2
Slight	1
Minimal	0

Health	/	3
Flammability		3
Physical Hazard		1
Personal Protection		B



2. Hazards Identification

Emergency overview	DANGER -- CORROSIVE Flammable liquid - may release vapors that form flammable mixtures at or above the flash point. Containers may explode when heated.
Potential short term health effects	
Routes of exposure	Eye, Skin contact, Inhalation, Ingestion.
Eyes	Causes chemical burns. May cause blindness.
Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation or chemical burns.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Target organs	Eyes. Respiratory system. Skin.
Chronic effects	Prolonged or repeated exposure can cause drying, defatting and dermatitis.
Signs and symptoms	The product may cause burns to eyes, skin and mucous membranes.

3. Composition / Information on Ingredients

Ingredient(s)	CAS #	Percent
Potassium hydroxide	1310-58-3	5 - 10
Ethanol	64-17-5	15 - 40

4. First Aid Measures

First aid procedures	
Eye contact	Immediately flush with cool water. Remove contact lenses, if applicable, and continue flushing for 15 minutes. Obtain medical attention immediately.
Skin contact	Immediately flush with water. Wash with soap and water. Obtain medical attention if irritation persists.
Inhalation	If symptoms develop, move victim to fresh air. If symptoms persist, obtain medical attention. If breathing has stopped, trained personnel should administer CPR immediately.
Ingestion	Do not induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth if victim is unconscious, or is convulsing. Obtain medical attention.
Notes to physician	Symptoms may be delayed.

General advice	Keep away from sources of ignition. No smoking. If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance. Avoid contact with eyes and skin. Keep out of reach of children.

5. Fire Fighting Measures

Flammable properties	Flammable by WHMIS/OSHA criteria. Vapors may travel to a source of ignition and flash back. Containers may explode when heated.
Extinguishing media	
Suitable extinguishing media	Dry chemical. Alcohol foam. Carbon dioxide.
Unsuitable extinguishing media	Water.
Protection of firefighters	
Specific hazards arising from the chemical	Not available
Protective equipment for firefighters	Firefighters should wear full protective clothing including self contained breathing apparatus.
Hazardous combustion products	May include and are not limited to: Oxides of carbon. Oxides of potassium.
Explosion data	
Sensitivity to mechanical impact	Not available
Sensitivity to static discharge	Not available

6. Accidental Release Measures

Personal precautions	Keep unnecessary personnel away. Do not touch or walk through spilled material. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Keep people away from and upwind of spill/leak.
Methods for containment	Stop leak if you can do so without risk. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	Before attempting clean up, refer to hazard data given above. Small spills may be absorbed with non-reactive absorbent and placed in suitable, covered, labelled containers. Prevent large spills from entering sewers or waterways. Contact emergency services and supplier for advice. Never return spills in original containers for re-use.

7. Handling and Storage

Handling	Use good industrial hygiene practices in handling this material. Do not get this material in your eyes, on your skin, or on your clothing.
Storage	Keep out of reach of children. Do not store at temperatures above 120°F (49°C). Store in a closed container away from incompatible materials.

8. Exposure Controls / Personal Protection

Exposure limits

Ingredient(s)	Exposure Limits
Ethanol	**ACGIH-TLV** TWA: 1000 ppm STEL: 1000 ppm **OSHA-PEL** TWA: 1000 ppm
Potassium hydroxide	**ACGIH-TLV** Ceiling: 2 mg/m3 **OSHA-PEL** Not established

Engineering controls	Use only under good ventilation conditions or with respiratory protection.
Personal protective equipment	
Eye / face protection	Wear chemical goggles.

Hand protection	Rubber gloves. Confirm with a reputable supplier first.
Skin and body protection	As required by employer code. Rubber apron recommended.
Respiratory protection	Where exposure guideline levels may be exceeded, use an approved NIOSH respirator.
General hygiene considerations	Use good industrial hygiene practices in handling this material. When using do not eat or drink. Wash hands before breaks and immediately after handling the product.

9. Physical and Chemical Properties

Appearance	Clear.
Color	Amber
Form	Liquid
Odor	Soapy
Odor threshold	Not available
Physical state	Liquid
pH	> 12
Melting point	Not available
Freezing point	Not available
Boiling point	177.80 - 183.20 °F (81 - 84 °C)
Pour point	Not available
Evaporation rate	1.2 - 1.4 (BuAc=1)
Flash point	77 °F (25.00 °C)
Auto-ignition temperature	Not available
Flammability limits in air, lower, % by volume	3.2
Flammability limits in air, upper, % by volume	19
Vapor pressure	2.3 (Air=1)
Vapor density	Not available
Specific gravity	1.06
Octanol/water coefficient	Not available
Solubility (H2O)	Soluble
Percent volatile	Not available

10. Stability and Reactivity

Chemical stability	Stable under recommended storage conditions.
Conditions to avoid	Heat, open flames, static discharge, sparks and other ignition sources. Do not mix with other chemicals.
Incompatible materials	Acids. Oxidizing agents.
Hazardous decomposition products	May include and are not limited to: Oxides of carbon. Oxides of potassium.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Component analysis - LC50

Ingredient(s)	**LC50**
Ethanol	31623 ppm rat
Potassium hydroxide	Not available

Component analysis - Oral LD50

Ingredient(s)	**LD50**
Ethanol	3450 mg/kg mouse; 7060 mg/kg rat
Potassium hydroxide	214 mg/kg rat

Effects of acute exposure

Eye	Causes chemical burns. May cause blindness.

Skin	Causes chemical burns.
Inhalation	May cause respiratory tract irritation or chemical burns.
Ingestion	Harmful if swallowed. May cause chemical burns to mouth, throat and stomach.
Sensitization	Non-hazardous by WHMIS/OSHA criteria.
Chronic effects	Non-hazardous by WHMIS/OSHA criteria.
Carcinogenicity	Not classified or listed by IARC, NTP, OSHA and ACGIH.

ACGIH - Threshold Limit Values - Carcinogens

Ethanol	64-17-5	A3 - Confirmed Animal Carcinogen with Unknown Relevance to Humans

IARC - Group 1 (Carcinogenic to Humans)

Ethanol	64-17-5	Monograph 96 [in preparation] (in alcoholic beverages)

Mutagenicity	Non-hazardous by WHMIS/OSHA criteria.
Reproductive effects	Non-hazardous by WHMIS/OSHA criteria.
Teratogenicity	Non-hazardous by WHMIS/OSHA criteria.
Synergistic Materials	Not available

12. Ecological Information

Ecotoxicity	See below

Ecotoxicity - Freshwater Fish - Acute Toxicity Data

Ethanol	64-17-5	96 Hr LC50 Oncorhynchus mykiss: 12.0-16.0 ml/L [static]; 96 Hr LC50 Pimephales promelas: >100 mg/L [static]; 96 Hr LC50 Pimephales promelas: 13400-15100 mg/L [flow-through]
Potassium hydroxide	1310-58-3	96 Hr LC50 Gambusia affinis: 80 mg/L [static]

Ecotoxicity - Water Flea - Acute Toxicity Data

Ethanol	64-17-5	48 Hr LC50 Daphnia magna: 9268 - 14221 mg/L; 24 Hr EC50 Daphnia magna: 10800 mg/L; 48 Hr EC50 Daphnia magna: 2 mg/L [Static]

Environmental effects	Not available
Aquatic toxicity	Not available
Persistence / degradability	Not available
Bioaccumulation / accumulation	Not available
Partition coefficient	Not available
Mobility in environmental media	Not available
Chemical fate information	Not available
Other adverse effects	Not available

13. Disposal Considerations

Waste codes	Not available
Disposal instructions	Review federal, state/provincial, and local government requirements prior to disposal.
Waste from residues / unused products	Not available
Contaminated packaging	Not available

14. Transport Information

U.S. Department of Transportation (DOT)

Basic shipping requirements:

Proper shipping name	Flammable liquids, corrosive, n.o.s. (ETHANOL, POTASSIUM HYDROXIDE)
Hazard class	3 (8)
UN number	UN2924
Packing group	II
Additional information:	
Special provisions	IB2, T11, TP2, TP27
Packaging exceptions	150
ERG number	132

Transportation of Dangerous Goods (TDG - Canada)

Basic shipping requirements:

Proper shipping name	FLAMMABLE LIQUID, CORROSIVE, N.O.S. (ETHANOL, POTASSIUM HYDROXIDE)
Hazard class	3 (8)
UN number	UN2924
Packing group	II
Additional information:	
Special provisions	16

15. Regulatory Information

Canadian federal regulations

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all the information required by the Controlled Products Regulations.

Canada - WHMIS - Ingredient Disclosure List

Ethanol	64-17-5	0.1 %
Potassium hydroxide	1310-58-3	1 %

US Federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ

Occupational Safety and Health Administration (OSHA)

29 CFR 1910.1200 hazardous chemical	Yes

CERCLA (Superfund) reportable quantity

Potassium hydroxide: 1000.0000

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories	Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - Yes Pressure Hazard - No Reactivity Hazard - No
Section 302 extremely hazardous substance	No
Section 311 hazardous chemical	Yes
Clean Air Act (CAA)	Not available
Clean Water Act (CWA)	Not available
WHMIS status	Controlled
WHMIS classification	Class B - Division 2 - Flammable Liquid, Class E - Corrosive Material

WHMIS labeling

State regulations This product does not contain a chemical known to the State of California to cause cancer, birth defects or other reproductive harm.

U.S. - California - 8 CCR Section 339 - Director's List of Hazardous Substances

Ethanol	64-17-5	Present (refers to solutions greater than or equal to 25% which are not beverage alcohols)
Potassium hydroxide	1310-58-3	Present

U.S. - California - Proposition 65 - Developmental Toxicity

Ethanol	64-17-5	developmental toxicity, initial date 10/1/87 (when in alcoholic beverages)

U.S. - Louisiana - Reportable Quantity List for Pollutants

Potassium hydroxide	1310-58-3	1000 Lb final RQ; 454 kg final RQ

U.S. - Massachusetts - Right To Know List

Ethanol	64-17-5	Teratogen
Potassium hydroxide	1310-58-3	Present

U.S. - Minnesota - Hazardous Substance List

Ethanol	64-17-5	Present
Potassium hydroxide	1310-58-3	Present

U.S. - New Jersey - Right to Know Hazardous Substance List

Ethanol	64-17-5	sn 0844
Potassium hydroxide	1310-58-3	sn 1571

U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Potassium hydroxide	1310-58-3	1000 Lb RQ (air); 100 lb RQ (land/water)

U.S. - Pennsylvania - RTK (Right to Know) List

Ethanol	64-17-5	Present
Potassium hydroxide	1310-58-3	Environmental hazard

U.S. - Rhode Island - Hazardous Substance List

Ethanol	64-17-5	Toxic; Flammable
Potassium hydroxide	1310-58-3	Toxic; Flammable

Inventory name

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

16. Other Information

Disclaimer	Information contained herein was obtained from sources considered technically accurate and reliable. While every effort has been made to ensure full disclosure of product hazards, in some cases data is not available and is so stated. Since conditions of actual product use are beyond control of the supplier, it is assumed that users of this material have been fully trained according to the requirements of all applicable legislation and regulatory instruments. No warranty, expressed or implied, is made and supplier will not be liable for any losses, injuries or consequential damages which may result from the use of or reliance on any information contained in this document.
Issue date	27-Aug-2010
Effective date	15-Aug-2010
Expiry date	15-Aug-2013
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Other information	For an updated MSDS, please contact the supplier/manufacturer listed on the first page of the document.