



# Safety Data Sheet

## SECTION 1: Identification

### 1.1. Product Identifier

**Trade Name or Designation:** Potassium Hydroxide, 0.050 Normal (N/20) in Reagent Alcohol

**Product Number:** P-1091

**Other Identifying Product Numbers:** P-1091-1, P-1091-3

### 1.2. Recommended Use and Restrictions on Use

General Laboratory Reagent

### 1.3. Details of the Supplier of the Safety Data Sheet

**Company:** Reagents Inc.

**Address:** 4746 Sweden Road  
Charlotte, NC 28224 USA

**Telephone:** 800-732-8484

### 1.4. Emergency Telephone Number (24 hr)

CHEMTREC (USA) 800-424-9300  
CHEMTREC (International) 1+ 703-527-3887

## SECTION 2: Hazard(s) Identification

### 2.1. Classification of the Substance or Mixture (in accordance with OSHA HCS 29 CFR 1910.1200)

*For the full text of the Hazard and Precautionary Statements listed below, see Section 16.*

Hazard Class	Category	Hazard	
		Statement	Precautionary Statements
Eye Damage / Irritation	Category 2A	H319	P264, P280, P305+P351+P338, P337+P313
Germ Cell Mutagenicity	Category 1	H340	P201, P202, P280, P308+P313, P405, P501
Reproductive Toxicity	Category 1	H360	P201, P202, P280, P308+P313, P405, P501
Specific Target Organs/Systemic Toxicity Following Single Exposure	Category 1	H370	P260, P264, P270, P307+P311, P321, P405, P501
Specific Target Organs/Systemic Toxicity Following Repeated Exposure	Category 1	H372	P260, P264, P270, P314, P501
Flammable Liquids	Category 2	H225	P210, P233, P240, P241, P242, P243, P280, P303+P361+P353, P370+P378, P403+P235, P501

## Safety Data Sheet

### 2.2. GHS Label Elements

Pictograms:



Signal Word: **Danger**

Hazard Statements:

Hazard Number	Hazard Statement
H225	Highly flammable liquid and vapor.
H319	Causes serious eye irritation.
H340	May cause genetic defects.
H360	May damage fertility or the unborn child.
H370	Causes damage to organs.
H372	Causes damage to organs through prolonged or repeated exposure.

## Safety Data Sheet

### Precautionary Statements:

Precautionary Number	Precautionary Statement
P201	Obtain special instructions before use.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, sparks and open flame. No smoking.
P233	Keep container tightly closed.
P240	Ground container and receiving equipment.
P241	Use explosion-proof equipment.
P242	Use only non-sparking tools.
P243	Take precautionary measures against static discharge.
P260	Do not breathe dust, fumes or mist.
P264	Wash arms, hands and face thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P280	Wear protective gloves and eye protection.
P303+P361+P353	IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P307+P311	IF exposed: Call a POISON CENTER or physician.
P308+P313	IF exposed or concerned: Get medical attention.
P314	Get medical attention if you feel unwell.
P321	Specific treatment (Wash areas of contact with water immediately).
P337+P313	If eye irritation persists: Get medical attention.
P405	Store locked up.
P501	Dispose of contents in accordance with local, state, federal and international regulations.

### 2.3. WHMIS Classification

WHMIS classification is not included based on the recommended option (Option 4) found in the Canada Gazette Part II, Vol. 149, No.3, page 458

### 2.4. Hazards not Otherwise Classified or Covered by GHS

Data not available.

## Safety Data Sheet

### SECTION 3: Composition / Information on Ingredients

#### 3.1. Components of Substance or Mixture

Chemical Name	Formula	Molecular Weight	CAS Number	Weight%
Ethyl Alcohol	CH <sub>3</sub> CH <sub>2</sub> OH	46.06 g/mol	64-17-5	89.88%
Isopropyl Alcohol	CH <sub>3</sub> CHOHCH <sub>3</sub>	60.09 g/mol	67-63-0	4.97%
Methyl Alcohol	CH <sub>3</sub> OH	32.04 g/mol	67-56-1	4.49%
Potassium Hydroxide	KOH	56.10 g/mol	1310-58-3	0.35%
Water	H <sub>2</sub> O	18.01 g/mol	7732-18-5	0.30%
Ethylenediamine	NH <sub>2</sub> CH <sub>2</sub> CH <sub>2</sub> NH <sub>2</sub>	60.09 g/mol	107-15-3	0.01%

### SECTION 4: First-Aid Measures

#### 4.1. General First Aid Information

**Eye Contact:** IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

**Inhalation:** Not expected to require first aid. If necessary, remove to fresh air.

**Skin Contact:** IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.

**Ingestion:** No action required to be taken. If necessary, dilute with water.

#### 4.2. Most Important Symptoms and Effects, Acute and Delayed

May cause mild irritation to areas of contact.

#### 4.3. Medical Attention or Special Treatment Needed

Specific treatment (Wash areas of contact with water immediately).

### SECTION 5: Fire-Fighting Measures

#### 5.1. Extinguishing Media

Not considered to be a fire or explosion hazard.

#### 5.2. Specific Hazards Arising from the Substance or Mixture

Highly flammable liquid and vapor.

#### 5.3. Special Protective Equipment for Firefighters

Wear protective clothing and NIOSH-approved breathing equipment appropriate for the surrounding fire.

### SECTION 6: Accidental Release Measures

#### 6.1. Personal Precautions, Protective Equipment and Emergency Procedures

Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves and eye protection.

## Safety Data Sheet

### 6.2. Cleanup and Containment Methods and Materials

Absorb with suitable material and dispose of in accordance with local regulations.

## SECTION 7: Handling and Storage

### 7.1. Precautions for Safe Handling and Storage Conditions

Store locked up.

## SECTION 8: Exposure Controls / Personal Protection

### 8.1. Control Parameters

Chemical Name	Limit Type	Country	Exposure Limit	Information Source
Ethyl Alcohol (64-17-5)	TWA	USA	1000 ppm TWA 1900 mg/m <sup>3</sup> TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Ethyl Alcohol (64-17-5)	TLV-STEL	USA	1000 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Ethylenediamine (107-15-3)	TWA	USA	10 ppm TWA 25 mg/m <sup>3</sup> TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Ethylenediamine (107-15-3)	TLV-TWA	USA	10 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Isopropyl Alcohol (67-63-0)	TWA	USA	400 ppm TWA 980 mg/m <sup>3</sup> TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Isopropyl Alcohol (67-63-0)	TLV-STEL	USA	400 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Isopropyl Alcohol (67-63-0)	TLV-TWA	USA	200 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Methyl Alcohol (67-56-1)	TWA	USA	200 ppm TWA 260 mg/m <sup>3</sup> TWA	U.S. - OSHA - Final PELs - Time Weighted Averages (TWAs)
Methyl Alcohol (67-56-1)	TLV-STEL	USA	250 ppm STEL	ACGIH - Threshold Limit Values - Short Term Exposure Limits (TLV-STEL)
Methyl Alcohol (67-56-1)	TLV-TWA	USA	200 ppm TWA	ACGIH - Threshold Limit Values - Time Weighted Averages (TLV-TWA)
Potassium Hydroxide (1310-58-3)	TLV-Ceiling	USA	2 mg/m <sup>3</sup> Ceiling	ACGIH - Threshold Limit Values - Ceilings (TLV-C)

### 8.2. Exposure Controls

**Engineering Controls:** No specific controls are needed. Normal room ventilation is adequate.

**Respiratory Protection:** No specific controls are needed. Normal room ventilation is adequate

**Skin Protection:** Wear protective gloves and eye protection.

**Eye Protection:** Wear protective gloves and eye protection.

## Safety Data Sheet

### 8.3. Personal Protective Equipment

Wear protective gloves and eye protection.

## SECTION 9: Physical and Chemical Properties

### 9.1. Basic Physical and Chemical Properties

**Appearance:** Colorless liquid

**Physical State:** Liquid

**Odor:** Data not available.

**Odor Threshold:** Data not available.

**pH:** > 12

**Melting/Freezing Point:** Data not available.

**Initial Boiling Point /Range:** Data not available.

**Flash Point:** Data not available.

**Evaporation Rate:** Data not available.

**Flammability:** Data not available.

**Flammability/Explosive Limits:** Data not available.

**Vapor Pressure:** Data not available.

**Vapor Density:** Data not available.

**Relative Density:** 0.8

**Solubility:** Miscible

**Partition Coefficient (n-Octanol/Water):** Data not available.

**Auto-Ignition Temperature:** Data not available.

**Decomposition Temperature:** Data not available.

**Viscosity:** Data not available.

**Explosive Properties:** Data not available.

**Oxidizing Properties:** Data not available.

## SECTION 10: Stability and Reactivity

### 10.1. Reactivity and Chemical Stability

Stable under normal conditions of use and storage.

### 10.2. Possibility of Hazardous Reactions

Data not available.

### 10.3. Conditions to Avoid and Incompatible Materials

Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed.



## Safety Data Sheet

### 10.4. Hazardous Decomposition Products

May emit irritating fumes when heated to decomposition.

## SECTION 11: Toxicological Information

### 11.1. Information on Toxicological Effects

#### Acute Toxicity - Oral Exposure:

Not applicable.

#### Acute Toxicity - Dermal Exposure:

Not applicable.

#### Acute Toxicity - Inhalation Exposure:

Not applicable.

#### Acute Toxicity - Other Information:

Data not available.

#### Skin Corrosion and Irritation:

Not applicable.

#### Serious Eye Damage and Irritation:

Causes serious eye irritation. Wash arms, hands and face thoroughly after handling. Wear protective gloves and eye protection. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention.

#### Respiratory Sensitization:

Not applicable.

#### Skin Sensitization:

Not applicable.

#### Germ Cell Mutagenicity:

May cause genetic defects. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Carcinogenicity:

Not applicable.

#### Reproductive Toxicity:

May damage fertility or the unborn child. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves and eye protection. IF exposed or concerned: Get medical attention. Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

#### Specific Target Organ Toxicity from Single Exposure:

Causes damage to organs. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. IF exposed: Call a POISON CENTER or physician. Specific treatment (Wash areas of contact with water immediately). Store locked up. Dispose of contents in accordance with local, state, federal and international regulations.

## Safety Data Sheet

### Specific Target Organ Toxicity from Repeated Exposure:

Causes damage to organs through prolonged or repeated exposure. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Get medical attention if you feel unwell. Dispose of contents in accordance with local, state, federal and international regulations.

### Aspiration Hazard:

Not applicable.

### Additional Toxicology Information:

Data not available.

## SECTION 12: Ecological Information

### 12.1. Ecotoxicity

Not applicable.

### 12.2. Persistence and Degradability

Data not available.

### 12.3. Bioaccumulative Potential

Data not available.

### 12.4. Mobility in Soil

Data not available.

### 12.5. Other Adverse Ecological Effects

Data not available.

## SECTION 13: Disposal Considerations

### 13.1. Waste Treatment Methods

Data not available.

## SECTION 14: Transportation Information

### 14.1. Transportation by Land - Department of Transportation (DOT, United States of America)

**UN Number:** UN1987

**Proper Shipping Name:** Alcohols, n.o.s., (Ethanol and Methanol)

**Hazard Class:** 3

**Packing Group:** II

**Hazard Placard Labels:**



## Safety Data Sheet

### 14.2. Transportation by Air - International Air Transport Association (IATA)

**UN Number:** UN1987

**Proper Shipping Name:** Alcohols, n.o.s., (Ethanol and Methanol)

**Hazard Class:** 3

**Packing Group:** II

**Hazard Placard Labels:**



## SECTION 15: Regulatory Information

### 15.1. Occupational Safety and Health Administration (OSHA) Hazards

Not listed.

### 15.2. Superfund Amendments and Reauthorization Act (SARA) 302 Extremely Hazardous Substances

Ethylenediamine (CAS # 107-15-3): 10000 lb TPQ

Ethylenediamine (CAS # 107-15-3): 5000 lb EPCRA RQ

### 15.3. Superfund Amendments and Reauthorization Act (SARA) 311/312 Hazardous Chemicals

Ethylenediamine (CAS # 107-15-3): 5000 lb final RQ; 2270 kg final RQ

Potassium Hydroxide (CAS # 1310-58-3): 1000 lb final RQ; 454 kg final RQ

Methyl Alcohol (CAS # 67-56-1): 5000 lb final RQ; 2270 kg final RQ

### 15.4. Superfund Amendments and Reauthorization Act (SARA) 313 Toxic Release Inventory (TRI)

Methyl Alcohol (CAS # 67-56-1): 1.0 % de minimis concentration

Isopropyl Alcohol (CAS # 67-63-0): 1.0 % de minimis concentration (only if manufactured by the strong acid process, no supplier notification)

### 15.5. Massachusetts Right-to-Know Substance List

Ethylenediamine (CAS # 107-15-3): Extraordinarily hazardous

Potassium Hydroxide (CAS # 1310-58-3): Present

Ethyl Alcohol (CAS # 64-17-5): Teratogen

Methyl Alcohol (CAS # 67-56-1): Present

Isopropyl Alcohol (CAS # 67-63-0): Present



## Safety Data Sheet

### 15.6. Pennsylvania Right-to-Know Hazardous Substances

Ethylenediamine (CAS # 107-15-3): Environmental hazard  
Ethylenediamine (CAS # 107-15-3): Present  
Potassium Hydroxide (CAS # 1310-58-3): Environmental hazard  
Potassium Hydroxide (CAS # 1310-58-3): Present  
Ethyl Alcohol (CAS # 64-17-5): Present  
Methyl Alcohol (CAS # 67-56-1): Environmental hazard  
Methyl Alcohol (CAS # 67-56-1): Present  
Isopropyl Alcohol (CAS # 67-63-0): Environmental hazard  
Isopropyl Alcohol (CAS # 67-63-0): Present  
Isopropyl Alcohol (CAS # 67-63-0): Special hazardous substance  
Water (CAS # 7732-18-5): Present

### 15.7. New Jersey Worker and Community Right-to-Know Components

Ethylenediamine (CAS # 107-15-3): corrosive  
Ethylenediamine (CAS # 107-15-3): sn 0875  
Ethylenediamine (CAS # 107-15-3): SN 0875 TPQ: 500 lb  
Potassium Hydroxide (CAS # 1310-58-3): corrosive  
Potassium Hydroxide (CAS # 1310-58-3): sn 1571  
Ethyl Alcohol (CAS # 64-17-5): carcinogen; flammable - third degree; mutagen; teratogen  
Ethyl Alcohol (CAS # 64-17-5): sn 0844  
Methyl Alcohol (CAS # 67-56-1): flammable - third degree; teratogen  
Methyl Alcohol (CAS # 67-56-1): sn 1222  
Methyl Alcohol (CAS # 67-56-1): SN 1222 TPQ: 500 lb  
Isopropyl Alcohol (CAS # 67-63-0): flammable - third degree  
Isopropyl Alcohol (CAS # 67-63-0): sn 1076  
Isopropyl Alcohol (CAS # 67-63-0): SN 1076 TPQ: 500 lb (manufacturing - strong acid process only)

### 15.8. California Proposition 65

Ethyl Alcohol (CAS # 64-17-5): carcinogen, initial date 4/29/11 (in alcoholic beverages)  
Ethyl Alcohol (CAS # 64-17-5): carcinogen, initial date 7/1/88 (when associated with alcohol abuse)  
Ethyl Alcohol (CAS # 64-17-5): developmental toxicity, initial date 10/1/87 (in alcoholic beverages)  
Methyl Alcohol (CAS # 67-56-1): developmental toxicity, initial date 3/16/12

### 15.9. Canada Domestic Substances List / Non-Domestic Substances List (DSL/NDSL)

Ethylenediamine (CAS # 107-15-3): Present  
Potassium Hydroxide (CAS # 1310-58-3): Present  
Ethyl Alcohol (CAS # 64-17-5): Present  
Methyl Alcohol (CAS # 67-56-1): Present  
Isopropyl Alcohol (CAS # 67-63-0): Present  
Water (CAS # 7732-18-5): Present



## Safety Data Sheet

### 15.10. United States of America Toxic Substances Control Act (TSCA) List

Ethylenediamine (CAS # 107-15-3): Present  
Potassium Hydroxide (CAS # 1310-58-3): Present  
Ethyl Alcohol (CAS # 64-17-5): Present  
Methyl Alcohol (CAS # 67-56-1): Present  
Isopropyl Alcohol (CAS # 67-63-0): Present  
Water (CAS # 7732-18-5): Present

### 15.11. European Inventory of Existing Commercial Chemical Substances (EINECS), European List of Notified Chemical Substances (ELINCS), and No Longer Polymers (NLP)

Not listed.

## SECTION 16: Other Information

### 16.1. Full Text of Hazard Statements and Precautionary Statements

Highly flammable liquid and vapor. Causes serious eye irritation. May cause genetic defects. May damage fertility or the unborn child. Causes damage to organs. Causes damage to organs through prolonged or repeated exposure.

Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Keep away from heat, sparks and open flame. No smoking. Keep container tightly closed. Ground container and receiving equipment. Use explosion-proof equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Do not breathe dust, fumes or mist. Wash arms, hands and face thoroughly after handling. Do not eat, drink or smoke when using this product. Wear protective gloves and eye protection.

IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. IF exposed: Call a POISON CENTER or physician. Get medical attention if you feel unwell. Specific treatment (Wash areas of contact with water immediately). If eye irritation persists: Get medical attention. In case of fire: Use dry chemical, foam or carbon dioxide to extinguish.

Store in a well-ventilated place. Keep cool. Store locked up.

Dispose of contents in accordance with local, state, federal and international regulations.

### 16.2. Miscellaneous Hazard Classes

**Canadian Carcinogenicity Hazard Class:** Not Applicable.

**Physical Hazards Not Otherwise Classified (PHNOC):** Not Applicable.

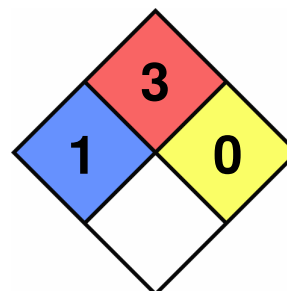
**Health Hazards Not Otherwise Classified (HHNOC):** Not Applicable.

**Biohazardous Infectious Materials Hazard Class:** Not Applicable.

## Safety Data Sheet

### 16.3. National Fire Protection Association (NFPA) Rating

Health: 1  
Flammability: 3  
Reactivity: 0  
Special Hazard:



### 16.4. Document Revision

Last Revision Date: 6/23/2015

#### DISCLAIMER

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration of its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and REAGENTS, INC. assumes no legal responsibility or liability whatsoever resulting from its use.