

**POTASSIUM HYDROXIDE IN ETHANOL 0.1M  
(0.1N) STANDARDIZED SOLUTION  
TRACEABLE TO NIST MSDS**

**CAS-No.: MSDS**



**MATERIAL SAFETY DATA SHEET (MSDS)**

**SECTION 1: Identification of the substance/mixture and of the company/undertaking**

**1.1. Product identifier**

Product form : Mixture  
:  
Product code : R310A

**1.2. Relevant identified uses of the substance or mixture and uses advised against**

**1.2.1. Relevant identified uses**

Industrial/Professional use spec : Industrial  
For professional use only

**1.2.2. Uses advised against**

No additional information available

**1.3. Details of the supplier of the safety data sheet**

Labogens Fine Chem Industries  
1st Floor , Above Bank of India, Guru Vihar , Rahon Road,  
Ludhiana Pb. (141007)  
+91 9316777775, +91 7707855700  
[sales@labogens.com](mailto:sales@labogens.com) - [www.Labogens.com](http://www.Labogens.com)

**1.4. Emergency telephone number**

Emergency number : +91 7707855700 (9:00am - 6:00 pm)

**SECTION 2: Hazards identification**

**2.1. Classification of the substance or mixture**

**Classification according to Regulation (EC) No. 1272/2008 [CLP]**

Flammable liquids, H225  
Category 2  
Corrosive to metals, H290  
Category 1  
Skin corrosion/irritation, H314  
Category 1

Full text of H statements : see section 16

**Adverse physicochemical, human health and environmental effects**

No additional information available

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### 2.2. Label elements

#### Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP) :



GHS02

GHS05

Signal word (CLP) :

Danger

Hazard statements (CLP) :

H225 - Highly flammable liquid and vapour.  
H290 - May be corrosive to metals.  
H314 - Causes severe skin burns and eye damage.

Precautionary statements (CLP) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P240 - Ground/bond container and receiving equipment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P330+P331 - IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P310 - Immediately call a POISON CENTER/doctor  
P403+P235 - Store in a well-ventilated place. Keep cool.

### 2.3. Other hazards

No additional information available

## SECTION 3: Composition/information on ingredients

### 3.1. Substances

Not applicable

### 3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Ethanol	(CAS-No.) 64-17-5 (EC-No.) 200-578-6 (EC Index-No.) 603-002-00-5	>= 99	Flam. Liq. 3, H226 Skin Corr. 1A, H314
Potassium hydroxide	(CAS-No.) 1310-58-3 (EC-No.) 215-181-3 (EC Index-No.) 019-002-00-8	0.01 - 1	Skin Corr. 1A, H314 Eye Dam. 1, H318 Acute Tox. 4 (Oral), H302

Full text of H-statements: see section 16

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### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Give oxygen or artificial respiration if necessary. If you feel unwell, seek medical advice.
- First-aid measures after skin contact : Wash skin with plenty of water. If skin irritation occurs: Get medical advice/attention.
- First-aid measures after eye contact : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Rinse mouth out with water. If you feel unwell, seek medical advice.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects : Causes severe skin burns and eye damage.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Treat symptomatically.

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Dry chemical, CO<sub>2</sub>, dry sand, or alcohol-resistant foam.
- Unsuitable extinguishing media : Do not use a heavy water stream.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Highly flammable liquid and vapour.
- Explosion hazard : Heating may cause a fire or explosion.

#### 5.3. Advice for firefighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment.

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

- Emergency procedures : Avoid contact with skin, eyes and clothing.

##### 6.1.2. For emergency responders

- Protective equipment : Use personal protective equipment as required.

#### 6.2. Environmental precautions

Harmful to aquatic life with long lasting effects.

#### 6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Clean contaminated surfaces with an excess of water.

#### 6.4. Reference to other sections

No additional information available

### SECTION 7: Handling and storage

#### 7.1. Precautions for safe handling

- Precautions for safe handling : Avoid contact with skin and eyes.
- Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

#### 7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store in a well-ventilated place. Keep container tightly closed.

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### 7.3. Specific end use(s)

No additional information available

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

No additional information available

### 8.2. Exposure controls

Hand protection	: Protective gloves
Eye protection	: Chemical goggles or safety glasses
Skin and body protection	: Wear suitable protective clothing
Respiratory protection	: Wear respiratory protection.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Clear Colorless.
Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: 14 °C
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available

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Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No additional information available

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. Heat. Open flame. Overheating.

### 10.5. Incompatible materials

No additional information available

### 10.6. Hazardous decomposition products

No additional information available

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity : Not classified

Skin corrosion/irritation : Causes severe skin burns and eye damage.

Serious eye damage/irritation : Serious eye damage, category 1, implicit

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Not classified

Reproductive toxicity : Not classified

STOT-single exposure : Not classified

STOT-repeated exposure : Not classified

Aspiration hazard : Not classified

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### SECTION 12: Ecological information

#### 12.1. Toxicity

No additional information available

#### 12.2. Persistence and degradability

No additional information available

#### 12.3. Bioaccumulative potential

No additional information available

#### 12.4. Mobility in soil

No additional information available

#### 12.5. Results of PBT and vPvB assessment

No additional information available

#### 12.6. Other adverse effects

No additional information available

### SECTION 13: Disposal considerations

#### 13.1. Waste treatment methods

No additional information available

### SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

#### 14.1. UN number

UN-No. (ADR)	: 2924
UN-No. (IMDG)	: 2924
UN-No. (IATA)	: 2924
UN-No. (ADN)	: 2924
UN-No. (RID)	: 2924

#### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Proper Shipping Name (IMDG)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Proper Shipping Name (IATA)	: Flammable liquid, corrosive, n.o.s.
Proper Shipping Name (ADN)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Proper Shipping Name (RID)	: FLAMMABLE LIQUID, CORROSIVE, N.O.S.
Transport document description (ADR)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S., 3 (8), II, (D/E)
Transport document description (IMDG)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S., 3 (8), II
Transport document description (IATA)	: UN 2924 Flammable liquid, corrosive, n.o.s., 3 (8), II
Transport document description (ADN)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S., 3 (8), II
Transport document description (RID)	: UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S., 3 (8), II

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### 14.3. Transport hazard class(es)

#### ADR

Transport hazard class(es) (ADR) : 3 (8)

Danger labels (ADR) : 3, 8



#### IMDG

Transport hazard class(es) (IMDG) : 3 (8)

Danger labels (IMDG) : 3, 8



#### IATA

Transport hazard class(es) (IATA) : 3 (8)

Hazard labels (IATA) : 3, 8



#### ADN

Transport hazard class(es) (ADN) : 3 (8)

Danger labels (ADN) : 3, 8



#### RID

Transport hazard class(es) (RID) : 3 (8)

Danger labels (RID) : 3, 8



### 14.4. Packing group

Packing group (ADR) : II

Packing group (IMDG) : II

Packing group (IATA) : II

Packing group (ADN) : II

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Packing group (RID) : II

### 14.5. Environmental hazards

Dangerous for the environment : No  
Marine pollutant : No  
Other information : No supplementary information available

### 14.6. Special precautions for user

#### - Overland transport

Classification code (ADR) : FC  
Special provisions (ADR) : 274  
Limited quantities (ADR) : 1I  
Excepted quantities (ADR) : E2  
Packing instructions (ADR) : P001, IBC02  
Mixed packing provisions (ADR) : MP19  
Portable tank and bulk container instructions (ADR) : T11  
Portable tank and bulk container special provisions (ADR) : TP2, TP27  
Tank code (ADR) : L4BH  
Vehicle for tank carriage : FL  
Transport category (ADR) : 2  
Special provisions for carriage - Operation (ADR) : S2, S20  
Hazard identification number (Kemler No.) : 338  
Orange plates :



Tunnel restriction code (ADR) : D/E  
EAC code : •3WE  
APP code : A(fl)

#### - Transport by sea

Special provisions (IMDG) : 274  
Packing instructions (IMDG) : P001  
IBC packing instructions (IMDG) : IBC02  
Tank instructions (IMDG) : T11  
Tank special provisions (IMDG) : TP2, TP27  
EmS-No. (Fire) : F-E  
EmS-No. (Spillage) : S-C  
Stowage category (IMDG) : B  
Stowage and handling (IMDG) : SW2  
Properties and observations (IMDG) : Causes burns to skin, eyes and mucous membranes.  
MFAG-No : 127

#### - Air transport

PCA Excepted quantities (IATA) : E2  
PCA Limited quantities (IATA) : Y340  
PCA limited quantity max net quantity (IATA) : 0.5L  
PCA packing instructions (IATA) : 352  
PCA max net quantity (IATA) : 1L



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CAO packing instructions (IATA)	: 363
CAO max net quantity (IATA)	: 5L
Special provisions (IATA)	: A3, A803
ERG code (IATA)	: 3CH

### - Inland waterway transport

Classification code (ADN)	: FC
Special provisions (ADN)	: 274
Limited quantities (ADN)	: 1 L
Excepted quantities (ADN)	: E2
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP, EP, EX, A
Ventilation (ADN)	: VE01
Number of blue cones/lights (ADN)	: 1

### - Rail transport

Classification code (RID)	: FC
Special provisions (RID)	: 274
Limited quantities (RID)	: 1L
Excepted quantities (RID)	: E2
Packing instructions (RID)	: P001, IBC02
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T11
Portable tank and bulk container special provisions (RID)	: TP2, TP27
Tank codes for RID tanks (RID)	: L4BH
Transport category (RID)	: 2
Colis express (express parcels) (RID)	: CE7
Hazard identification number (RID)	: 338

### 14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

## SECTION 15: Regulatory information

### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

#### 15.1.1. EU-Regulations

Contains no REACH substances with Annex XVII restrictions

Contains no substance on the REACH candidate list

Contains no REACH Annex XIV substances

#### 15.1.2. National regulations

##### Germany

Reference to AwSV : Water hazard class (WGK) 1, Slightly hazardous to water (Classification according to AwSV, Annex 1)

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12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

### Netherlands

SZW-lijst van kankerverwekkende stoffen : Ethanol is listed  
SZW-lijst van mutagene stoffen : None of the components are listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : Ethanol is listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : Ethanol is listed  
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : Ethanol is listed

### Denmark

Class for fire hazard : Class I-1  
Store unit : 1 liter  
Classification remarks : F <Flam. Liq. 2; Met. Corr. 1>; Emergency management guidelines for the storage of flammable liquids must be followed  
Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product

## 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Flam. Liq. 2	Flammable liquids, Category 2
Flam. Liq. 3	Flammable liquids, Category 3
Met. Corr. 1	Corrosive to metals, Category 1
Skin Corr. 1	Skin corrosion/irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H318	Causes serious eye damage.

*This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.*