

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

1.1. Product identifier

Product form : Mixture
Name : Potassium Hydroxide
Trade name : Potassium Hydroxide, 0.1 M in ethanol VSA
UFI : 8D70-E0NU-800F-Q28F
Product code : POHY-E1V

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

Relevant identified uses

Main use category : Laboratory use

1.3. Details of the supplier of the safety data sheet

labbox labware s.l.
Migjorn, 1
P.O. Box Barcelona (SPAIN)
08338 Premià de Dalt, SPAIN
ES
T +34 937 07 79 70, F +34 937 909 532
info@labbox.com, www.labbox.com

1.4. Emergency telephone number

Emergency number : +34 937 077 970 (Technic information.Office hours.) Servicio de Información Toxicológica (Instituto Nacional de Toxicología y Ciencias Forenses) Teléfono: +34 91 5620420.Información en español (24h/365 días). Únicamente con la finalidad de proporcionar respuesta sanitaria en caso de urgencia (ONLY IN CASE OF EMERGENCY)"

Country/Area	Organisation/Company	Address	Emergency number	Comment
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA	0344 892 0111	

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

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

Flammable liquids, Category 2 H225
Corrosive to metals, Category 1 H290
Skin corrosion/irritation, Category 2 H315
Full text of H and EUH statements: see section 16

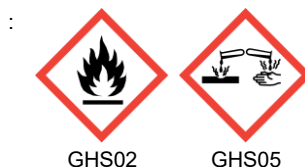
Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

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Hazard statements (CLP)	: H225 - Highly flammable liquid and vapour. H290 - May be corrosive to metals. H315 - Causes skin irritation.
Precautionary statements (CLP)	: P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P233 - Keep container tightly closed. P234 - Keep only in original packaging. P240 - Ground and bond container and receiving equipment. P241 - Use explosion-proof electrical/ventilating/lighting equipment. P264 - Wash hands, forearms and face thoroughly after handling.

2.3. Other hazards

PBT: not relevant – no registration required

Contains no PBT/vPvB substances $\geq 0.1\%$ assessed in accordance with REACH Annex XIII

The mixture does not contain substance(s) included in the list established in accordance with Article 59(1) of REACH for having endocrine disrupting properties, or is not identified as having endocrine disrupting properties in accordance with the criteria set out in Commission Delegated Regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605

SECTION 3: Composition/information on ingredients

3.2. Mixtures

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
ALCOHOL	CAS-No.: 64-17-5 EC-No.: 200-578-6 EC Index-No.: 603-002-00-5	>90	Flam. Liq. 2, H225
POTASSIUM HYDROXIDE	CAS-No.: 1310-58-3 EC-No.: 215-181-3 EC Index-No.: 019-002-00-8	>0,1 - <1	Acute Tox. 4 (Oral), H302 Skin Corr. 1A, H314

Specific concentration limits:

Name	Product identifier	Specific concentration limits (%)
POTASSIUM HYDROXIDE	CAS-No.: 1310-58-3 EC-No.: 215-181-3 EC Index-No.: 019-002-00-8	(0,5 $\leq$ C < 2) Eye Irrit. 2; H319 (0,5 $\leq$ C < 2) Skin Irrit. 2; H315 (2 $\leq$ C < 5) Skin Corr. 1B; H314 (5 $\leq$ C < 100) Skin Corr. 1A; H314

Full text of H and EUH statements: see section 16

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.
First-aid measures after skin contact	: Wash skin with plenty of water. Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse.
First-aid measures after eye contact	: Immediately rinse with water for a prolonged period while holding the eyelids wide open. Consult an eye specialist.
First-aid measures after ingestion	: If the person is fully conscious, make him/her drink warm water (1/2 litre). Never give an unconscious person anything to drink. Call a physician immediately.

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

Symptoms/effects after skin contact	: Causes severe burns.
Symptoms/effects after eye contact	: Causes serious eye damage.
Symptoms/effects after ingestion	: Swallowing a small quantity of this material will result in serious health hazard.

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

Never give anything by mouth to an unconscious person.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Carbon dioxide. ABC-powder. Dry powder.
Unsuitable extinguishing media	: Strong water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Flammable liquid and vapour.
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5.3. Advice for firefighters

Firefighting instructions	: Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures	: Do not inhale vapour. Avoid contact with skin and eyes.
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For non-emergency personnel

Emergency procedures	: Ventilate spillage area. Only qualified personnel equipped with suitable protective equipment may intervene.
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For emergency responders

Protective equipment	: Do not attempt to take action without suitable protective equipment. Equip cleanup crew with proper protection.
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6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

For containment	: Collect spillage.
Methods for cleaning up	: On land, sweep or shovel into suitable containers.
Other information	: Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

See Heading 8. For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Hygiene measures	: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.
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7.2. Conditions for safe storage, including any incompatibilities

Incompatible materials	: Heat sources. Sources of ignition. Direct sunlight.
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Storage area : Store away from heat. Store in a well-ventilated place.
Special rules on packaging : Store in a closed container. Keep only in original container.

7.3. Specific end use(s)

Laboratory chemicals.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

National occupational exposure and biological limit values

ALCOHOL (64-17-5)	
France - Occupational Exposure Limits	
Local name	Alcool éthylique
VME (OEL TWA)	1900 mg/m³
	1000 ppm
VLE (OEL Ceiling/STEL)	9500 mg/m³
	5000 ppm
Remark	Valeurs recommandées/admises
Germany - Occupational Exposure Limits (TRGS 900)	
Local name	Ethanol
AGW (OEL TWA)	960 mg/m³
	500 ppm
Remark	DFG,Y
Portugal - Occupational Exposure Limits	
Local name	Etanol (Álcool etílico)
OEL STEL	1000 ppm
Spain - Occupational Exposure Limits	
Local name	Etanol (Alcohol etílico)
VLA-EC (OEL STEL)	1910 mg/m³
	1000 ppm
Remark	s (Esta sustancia tiene prohibida total o parcialmente su comercialización y uso como fitosanitario y/o como biocida. Para una información detallada acerca de las prohibiciones consúltese: Base de datos de productos biocidas: http://www.msssi.gob.es/ciudadanos/productos.do?tipo=plaguicidas Base de datos de productos fitosanitarios http://www.magrama.gob.es/agricultura/pags/fitos/registro/fichas/pdf/Lista_sa.pdf).
United Kingdom - Occupational Exposure Limits	
Local name	Ethanol
WEL TWA (OEL TWA)	1920 mg/m³
	1000 ppm
POTASSIUM HYDROXIDE (1310-58-3)	
France - Occupational Exposure Limits	
Local name	Hydroxyde de potassium

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POTASSIUM HYDROXIDE (1310-58-3)	
VLE (OEL Ceiling/STEL)	2 mg/m ³
Remark	Valeurs recommandées/admises
Portugal - Occupational Exposure Limits	
Local name	Hidróxido de potássio
OEL Ceiling	2 mg/m ³
Spain - Occupational Exposure Limits	
Local name	Hidróxido de potasio
VLA-EC (OEL STEL)	2 mg/m ³
United Kingdom - Occupational Exposure Limits	
Local name	Potassium hydroxide
WEL STEL	2 mg/m ³

8.2. Exposure controls

Appropriate engineering controls

Appropriate engineering controls:

Ensure good ventilation of the work station. Do not inhale vapour.

Personal protection equipment

Personal protective equipment:

EN 374.

Personal protective equipment symbol(s):



Eye and face protection

Eye protection:

Safety glasses

Skin protection

Skin and body protection:

Wear suitable protective clothing

Hand protection:

protective gloves

Respiratory protection

Respiratory protection:

Wear appropriate mask

Respiratory protection			
Device	Filter type	Condition	Standard
Gas mask			

Environmental exposure controls

Other information:

Do not eat, drink or smoke during use. Wash hands with water as a precaution. The present safety data sheet is consistent with the specific conditions relied on to justify the registration of the substance as isolated intermediate.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Colourless.
Odour	: characteristic.
Odour threshold	: Not available
Melting point	: -117 °C
Freezing point	: Not available
Boiling point	: 79 °C
Flammability	: Not available
Lower explosion limit	: 2 vol %
Upper explosion limit	: 12 vol %
Flash point	: 12 °C
Auto-ignition temperature	: 370 °C
Decomposition temperature	: Not available
pH	: > 11
Viscosity, kinematic	: Not available
Solubility	: Soluble.
Partition coefficient n-octanol/water (Log Kow)	: Not available
Vapour pressure	: Not available
Vapour pressure at 50 °C	: Not available
Density	: 0,84 g/ml
Relative density	: Not available
Relative vapour density at 20 °C	: Not available
Particle characteristics	: Not applicable

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 of use.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

No additional information available

10.5. Incompatible materials

Oxidizing agent.

10.6. Hazardous decomposition products

No additional information available

SECTION 11: Toxicological information

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

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LD50 oral rat	6200 g/kg
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Skin corrosion/irritation	: Causes skin irritation. pH: > 11
Serious eye damage/irritation	: Not classified pH: > 11
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

11.2. Information on other hazards

Endocrine disrupting properties

Adverse health effects caused by endocrine disrupting properties	: Not applicable
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SECTION 12: Ecological information

12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute)	: Not classified
Hazardous to the aquatic environment, long-term (chronic)	: Not classified

12.2. Persistence and degradability

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Persistence and degradability	Rapidly degradable
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ALCOHOL (64-17-5)

Persistence and degradability	Rapidly degradable
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POTASSIUM HYDROXIDE (1310-58-3)

Persistence and degradability	Rapidly degradable
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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

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PBT: not relevant – no registration required

12.6. Endocrine disrupting properties

Adverse effects on the environment caused by endocrine disrupting properties	: Not applicable.
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12.7. Other adverse effects

Other adverse effects : Do not discharge into drains or rivers.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Disposal must be done according to official regulations.
Waste treatment methods : Must follow special treatment according to local regulation.

SECTION 14: Transport information

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

14.1. UN number or ID number

UN-No. (ADR) : UN 2924
UN-No. (IMDG) : UN 2924
UN-No. (IATA) : UN 2924
UN-No. (ADN) : UN 2924
UN-No. (RID) : UN 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) (ADR) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, potassium hydroxide solution), 3 (8), II, (D/E)
Transport document description (IMDG) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, potassium hydroxide solution), 3 (8), II
Transport document description (IATA) : UN 2924 Flammable liquid, corrosive, n.o.s. (Ethanol, potassium hydroxide solution), 3 (8), II
Transport document description (ADN) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, potassium hydroxide solution), 3 (8), II
Transport document description (RID) : UN 2924 FLAMMABLE LIQUID, CORROSIVE, N.O.S. (Ethanol, potassium hydroxide solution), 3 (8), II

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)
Danger labels (IATA) : 3, 8

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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

Packing group (RID)

: II

14.5. Environmental hazards

Dangerous for the environment

: No

Marine pollutant

: No

EmS-No. (Fire)

: F-E

EmS-No. (Spillage)

: S-C

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)

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Transport by sea

Special provisions (IMDG)	: 274
Limited quantities (IMDG)	: 1 L
Excepted quantities (IMDG)	: E2
Packing instructions (IMDG)	: P001
IBC packing instructions (IMDG)	: IBC02
Tank instructions (IMDG)	: T11
Tank special provisions (IMDG)	: TP2, TP27
Stowage category (IMDG)	: B
Stowage and handling (IMDG)	: SW2
Properties and observations (IMDG)	: Causes burns to skin, eyes and mucous membranes.

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
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. Maritime transport in bulk according to IMO instruments

Not applicable

SECTION 15: Regulatory information

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

EU-Regulations

REACH Annex XVII (Restriction List)

Contains no REACH substances with Annex XVII restrictions

REACH Annex XIV (Authorisation List)

Contains no REACH Annex XIV substances

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REACH Candidate List (SVHC)

Contains no substance on the REACH candidate list

PIC Regulation (Prior Informed Consent)

Contains no substance subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

POP Regulation (Persistent Organic Pollutants)

Contains no substance subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

Ozone Regulation (2024/590)

Contains no substance(s) listed on the Ozone Depletion list (Regulation EU 2024/590 on substances that deplete the ozone layer)

Dual-Use Regulation (428/2009)

Contains no substance subject to the COUNCIL REGULATION (EC) No 428/2009 of 5 May 2009 setting up a Community regime for the control of exports, transfer, brokering and transit of dual-use items.

Explosives Precursors Regulation (2019/1148)

Contains no substance subject to Regulation (EU) 2019/1148 of the European Parliament and of the Council of 20 June 2019 on the marketing and use of explosives precursors.

Drug Precursors Regulation (273/2004)

Contains no substance subject to Regulation (EC) 273/2004 of the European Parliament and of the Council of 11 February 2004 on the manufacture and the placing on market of certain substances used in the illicit manufacture of narcotic drugs and psychotropic substances.

National regulations

Occupational diseases	
Code	Description
RG 84	Conditions caused by liquid organic solvents for professional use: saturated or unsaturated aliphatic or cyclic liquid hydrocarbons and mixtures thereof; liquid halogenated hydrocarbons; nitrated derivatives of aliphatic hydrocarbons; alcohols; glycols, glycol ethers; ketones; aldehydes; aliphatic and cyclic ethers, including tetrahydrofuran; esters; dimethylformamide and dimethylacetamine; acetonitrile and propionitrile; pyridine; dimethylsulfone and dimethylsulfoxide

Germany

Water hazard class (WGK) : WGK 3, Highly hazardous to water (Classification according to AwSV, Annex 1).

Netherlands

SZW-lijst van kankerverwekkende stoffen : ALCOHOL is listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : ALCOHOL is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : ALCOHOL is listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : ALCOHOL 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
Danish National Regulations : Young people below the age of 18 years are not allowed to use the product

15.2. Chemical safety assessment

No additional information available

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SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Flam. Liq. 2	Flammable liquids, Category 2
Skin Corr. 1A	Skin corrosion/irritation, Category 1A
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Irrit. 2	Skin corrosion/irritation, Category 2
H225	Highly flammable liquid and vapour.
H290	May be corrosive to metals.
H302	Harmful if swallowed.
H314	Causes severe skin burns and eye damage.
H315	Causes skin irritation.
H319	Causes serious eye irritation.

Safety Data Sheet (SDS), EU

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.