

Safety Data Sheet

according to Directive 1907/2006/EC (REACH) and Regulation 2015/830/EU

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Date of issue: 29.09.2016

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

1.1 Product identifier

REF 91031
 Product name UNISOL 113 pH 1-13 (100ml)
 1 x 100 mL UNISOL pH 1-13

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

Relevant identified uses
 Product for analytical use.
 Exposure Scenario Classification according REACH, RIP 3.2 Codes: SU 0-2, PC 21, PROC 15, AC 0
 The exposure scenario is integrated into sections 1-16.
Uses advised against
 not described

1.3 Details of the supplier of the safety data sheet

Manufactured by:
 MACHEREY-NAGEL GmbH & Co. KG
 Neumann-Neander-Str. 6-8, 52355 Dueren, GERMANY
 Tel.: +49 2421 969 0 E-mail: msds@mn-net.com

1.4 Emergency telephone number

Outside Germany (DE): Call your regional Poisons Information Service or call local Life Saving Service.
 DE: Gemeinsames Giftinformationszentrum (GGIZ) 99089 Erfurt tel. +49 361 730 730

SECTION 2: Hazard identification

2.1 Classification of the substance or mixture

100 mL UNISOL pH 1-13

Directive 1999/45/EC

Symbols

R 11



F

CLP Directive 1272/2008/EC

GHS pictograms



GHS02

Signal word

DANGER

Hazard identification

H225

Hazard classes/categories

Flammable Liquid cat. 2

2.2 Label elements

According 1999/45/EC small amounts of harmful and highly flammable preparations/mixtures have partly/completely exemption from labelling (no symbols F, O, Xn, Xi, N and no R and S phrases are necessary) until **25-125 mL_{lg}**.

According **CLP (GHS)** inner packages must be only labelled with symbol(s) and product identifier (EU 1272/2008 Annex I - 1.5.1.2). Harmful chemicals/mixtures with signal word: **WARNING** and highly flammable chemicals/mixtures must not be labelled with H and P phrases until **125 mL** (EU 1272/2008 Annex I - 1.5.2).

100 mL UNISOL pH 1-13

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Directive 1999/45/EC
Symbols:



F
R 11
Highly flammable.

S 16-7
Keep away from sources of ignition — No smoking. Keep container tightly closed.

CLP Directive 1272/2008/EC
GHS pictograms:



GHS02
Signal word: DANGER

2.3 Other hazards

Possible Hazards from physicochemical Properties
Flammable properties. Vapour forms explosive mixtures with air.

Information pertaining to particular Risks to Human and possible Symptoms

Information pertaining to particular Risks to the Environment

Other Hazards

SECTION 3: Composition/Information on Ingredients

3.1 Substances or 3.2 Mixtures

100 mL UNISOL pH 1-13

Chemical:	<i>ethanol</i> (denatured with MEK, acc. 3199/93/EC)	CAS No.:	64-17-5
Concentration:	75 - 90 %		
Formula:	C ₂ H ₆ O		
Pseudonym:	ethyl alcohol, methylated spirit		
REACH Reg. No.:	01-2119457610-43-xxxx		
EC No.:	200-578-6	Indice No.:	603-002-00-5
RTECS:	KQ6300000	MFCD:	00003568
TSCA Inventory:	listed		
KE No.:	KE-13217		
acc. 1999/45/EC:	R 11	acc. CLP (GHS):	H225
Chemical:	<i>indicator dye(s)</i>	CAS No.:	-
Concentration:	0,1 - 1 %		
acc. 1999/45/EC:	-	acc. CLP (GHS):	not necessary

3.3 Remarks

List of R, H and P phrases: see section 16

SECTION 4: First aid measures

4.1 Description of first aid measures

Place insured person out of danger zone to fresh air immediately. Ensure quiet, warmth, and provide resuscitation if necessary. If necessary contact medical advice.

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- 4.1.1 After SKIN Contact**
Remove contaminated clothing. Rinse the affected skin or mucous membrane thoroughly under running water. (If possible) use soap.
- 4.1.2 After EYE Contact**
After contact with the eyes rinse thoroughly under running water with the eyelid wide open with eye washing bottle, eye douche or running water (protect intact eye).
- 4.1.3 After INHALATION of Vapours**
After inhalation of foam or vapour fresh air should be inhaled. Keep airways free.
- 4.1.4 After ORAL Intake**
After oral intake lots of water should be drunk after it has been ingested.
- 4.2 Most important symptoms and effects, both acute and delayed**
Avoid inhalation of dust. ---
- 4.3 Indication of any immediate medical attention and special treatment needed**
No additionally recommendations.

SECTION 5: Firefighting measures

- 5.1 Extinguishing media**
Fire extinguishers appropriate to the fire classification, and, if applicable, a fire blanket must be available in a prominent location in the work area. All extinguishers like FOAM, WATER SPRAY, DRY POWDER, CARBON DIOXIDE can be used.
- 5.2 Special hazards arising from the substance or mixture**
DANGER: Highly flammable (GHS regulation). Forms explosive vapour-air mixtures. Formation of hazardous and caustic vapour-air mixtures possible.
- 5.3 Advice for firefighters**
No, for listed product. Product package burns like paper or plastic.
- 5.4 Additional Information**

SECTION 6: Accidental release measures

- 6.1 Personal precautions, protective equipment and emergency procedures**
Do not breathe vapours. Regular staff training is necessary.
- 6.2 Environmental precautions**
not necessary
- 6.3 Methods and material for containment and cleaning up**
Bind any escaping liquid with inert absorbent. Collect small amounts of leaked liquid and flush with water into drains.
- 6.4 Reference to other sections**

SECTION 7: Handling and storage

- 7.1 Precautions for safe handling**
Handling in accordance with the test instruction, that comes with the product.
- 7.2 Conditions for safe storage, including any incompatibilities**
The original product package of MACHEREY-NAGEL allows a safe storage.
Storage class (German chemical industry): see section 12.1
- 7.2.1 Requirements for Stock Rooms and Containers**
Keep original product packages tightly closed during handling and storage.
- 7.3 Specific end use(s)**
Product for analytical use.

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SECTION 8: Exposure controls/personal protection

8.1 Control parameters

100 mL UNISOL pH 1-13

Chemical: *ethanol*

CAS No.: 64-17-5

DNEL: 950_{inh-sys} mg/m³

DNEL = Derived No-Effect Level (for workers)

TRGS 900 (DE): 500 mL/m³ / 960 mg/m³
E/e respirable

Short-term exposure factor: 2 (II), Y
skin resorptive (H), respiratory sensitizable (Sa), skin sensitizable (Sh), teratogenic (Z) not securely excluded / (Y) certainly excluded

SUVA(CH) MAK value: 500 ppm / 960 mg/m³

NIOSH: TWA 1000 ppm / 1900 mg/m³

OSHA: TWA 1000 ppm / 1900 mg/m³

Chemical: *indicator dye(s)*

CAS No.: -

8.2 Exposure controls

Good ventilation and extraction system in the room, floor resistant to chemicals with floor drainage and washing facilities. The highest level of cleanliness must be maintained at the workplace.

8.2.1 Respiratory Protection

Only if additional recommendations in test instruction or packing insert.

8.2.2 Hand Protection

Yes, gloves according EN 374 (permeation time >30 min - level 2), consist of PVC, natural latex, Neopren, or Nitril (f.ex. from Ansell or KCL). Use for short times chemical resistant latex gloves with code EN 374-3 level 1.

8.2.3 Eye Protection

Yes, safety glasses according EN 166 with integrated side shields or wrap-around protection.

8.2.4 Skin Protection

Not necessary.

8.2.5 Personal Hygiene

Eating, drinking, smoking, taking snuff and storage of food in work areas and at outdoor workplaces is prohibited. Avoid contact with the skin, eyes and clothing. Rinse any clothing on which the substance has been spilled, and soak it in water. Wash hands thoroughly with soap and water when stopping work and before eating, and then apply protective skin cream.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

100 mL UNISOL pH 1-13

Appearance : liquid

Color : green

Odor : alcoholic

Flash point: 20 °C

Specific gravity: 0,85 g/cm³

Solubility in water: 0-100 %

9.2 Other information

Relevant Properties of Substance Group

9.2.1

Data for the other parameters of the mixtures are not available, because no registration and no chemical safety report is required.

SECTION 10: Stability and reactivity

10.1 Reactivity

No data available

10.2 Chemical stability

No known instability.

10.3 Possibility of hazardous reactions

No data available.

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10.4 Conditions to avoid

Or when indicated in packing insert.

10.5 Incompatible materials

Not necessary.

10.6 Hazardous decomposition products

In the original package all parts/all reagents are safety and separated stored. Decompositions are not observed during the expiration period under recommended conditions.

SECTION 11: Toxicological information

11.1 Information on toxicological effects

Following information is valid for pure substances. Quantitative data on the toxicity of this product are not available.

100 mL UNISOL pH 1-13

Chemical:	<i>ethanol</i>	CAS No.:	64-17-5
TSCA Inventory:	listed	California Proposition 65 List:	not listed
ACGIH:	1000 ppm		
Exposure Routes:	inhalation, ingestion, skin and/or eye contact		
Target Organs:	Eyes, skin, respiratory system, central nervous system, liver, blood, reproductive system		
Symptoms:	irritation eyes, skin, nose; headache, drowsiness, lassitude (weakness, exhaustion), narcosis; cough; liver damage; anemia; reproductive, teratogenic		
Australia NICNAS:	not listed	Canada CEPA 1999:	DSL yes
Japan CSCL/PRTR:	not listed		
Japan PDSCL:	not listed	Japan ISHL:	listed ≥0,1%/≥0,1%, Article 57-2 (SDS required)
South Korea TCCA:	not listed		
Korea Exist.Chem.Inventory:	KE-13217		
LD50 _{orl rat} :	6200 mg/kg		
LC _{LoWihl} gpg :	21.9 g/m ³		
LC _{LoWorl} hmn :	1400 mg/kg		
LC50 _{ihl} mouse :	394h g/m ³		
LC50 _{ihl} rat :	20 _{10h} g/m ³		
LD50 _{drm} rbt :	20 000 mg/kg		
LD50 _{oral} mouse :	3450 mg/kg		
TRGS 905 (DE):	K5, M5, R _F C		
Chemical:	<i>indicator dye(s)</i>	CAS No.:	-

SECTION 12: Ecological information

12.1 Toxicity

Following information is valid for pure substances.

100 mL UNISOL pH 1-13

Chemical:	<i>ethanol</i>	CAS No.:	64-17-5
PNEC (fresh water) :	0.96 mg/L		
PNEC = Predicted No Effect Concentration			
LC50 _{daphnia magna/48h} :	>100 mg/L		
LC50 _{pimephales promelas/96h} :	13400 - 15100 mg/L		
LC50 _{leuciscus idus/96h} :	8140 _{48h} mg/L		
LC50 _{fish/96h} :	13 g/L		
EC50 _{daphnia/48h} :	9.3-14.2 g/L		
IC50 _{scenedesmus quadricauda/72h} :	5000 _{7d} mg/L		
EC10 _{pseudomonas putita/16h} :	EC5: 6500 mg/L		
WGK (DE):	1	WGK No.:	0096
Dispersion coefficient _(octanol-water) :	-0.31		
Storage class (VCI):	3		
Chemical:	<i>indicator dye(s)</i>	CAS No.:	-
Storage class (VCI):	12-13		

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- 12.2 Persistence and degradability**
not necessary
- 12.3 Bioaccumulative potential**
not necessary
- 12.4 Mobility in soil**
not necessary
- 12.5 Results of PBT and vPvB assessment**
no data available
- 12.6 Other adverse effects**
no additional data available

SECTION 13: Disposal considerations

Please observe local regulations for collection and disposal of hazardous waste and contact waste disposal company, where you will obtain information on laboratory waste disposal (waste code number 16 05 06).

- 13.1 Waste treatment methods**
Normally it is possible to empty small amounts (diluted!) into drains.

SECTION 14: Transport information

14.1. UN number: 3316	14.2. UN proper shipping name: Chemical Kit
14.3. Class: 9	14.4. Packing group: II

Road transport
 Classification code: M11 Tunnel restriction code: E
 Limited Quantity: acc. ADR 3.3.1/251: see LQ in Alternative transport labelling

Air transport
 PAX: 960 max. weight PAX: 10 KG
 CAO: 960 max. weight CAO: 10 KG

Maritime transport
 EmS: F-A, S-P Storage category: A

Alternative transport labelling follows:

14.1 UN number: 1993	14.2 UN proper shipping name: Flammable liquid, n.o.s. (ethanol mixture)
14.3 Class: 3	14.4 Packing group: II

Road transport
 Classification code: F1 Tunnel restriction code: E
 Limited Quantity: 1 L
 Excepted Quantity: E 2 Special instructions: 640C

Air transport
 PAX: 353 max. weight PAX: 5 L
 CAO: 364 max. weight CAO: 60 L

Maritime transport
 EmS: F-E, S-E Storage category: B

- 14.5 Environmental hazards**
not necessary, contains only small quantities of hazardous substances
- 14.6 Special precautions for user**
not necessary
- 14.7 Transport in bulk according to Annex II of MARPOL and the IBC Code**
not applicable

SECTION 15: Regulatory Information

- 15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**
 German act governing protection from hazardous substances (Chemicals Act / Chemikaliengesetz- ChemG), revised on August 2013
 German order governing protection from hazardous substances (Ordinance on Hazardous Substances / Gefahrstoffverordnung - GefStoffV), revised on November 2010, according to Directive 98/24/EC
 TRGS 200, German engineering rules governing the classification and labelling of hazardous substances, preparations and products, updated October 2011



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15.2 Chemical safety assessment not necessary for these small amounts

SECTION 16: Other Information

16.1 List of R, H and P phrases

- 16.1.1 List of relevant R phrases**
R11 Highly flammable.
- 16.1.2 List of relevant H phrases**
H225 Highly flammable liquid and vapour.
- 16.1.3 List of relevant P phrases**
P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking.
P233 Keep container tightly closed.
P370+378 In case of fire: Use all extinguisher media to extinguish.
P403+235 Store in a well-ventilated place. Keep cool.

16.2 Training Advice

Regular safety training.

16.3 Recommended Restriction on Use

Only for professional user.
An individual package of this product or test kit has a moderate hazardous potential.

16.4 Further Information

MACHEREY-NAGEL GmbH & Co. KG provides the information contained herein in good faith being up-to-date of own realizations at revision time. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Individuals receiving the information must exercise their independent judgement in determining its appropriateness for a particular purpose.
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16.5 Sources of Key Data

Regulation 453/2010/EU REACH - REQUIREMENTS FOR THE COMPILATION OF SAFETY DATA SHEETS
Regulation 487/2013/EU, 4th adaptation of CLP regulation to technical and scientific progress
TRGS 900, German engineering rules governing limits in air at work, updated February 2015
SUVA .CH, Limits in air at work 2009, revised on 01.2009
KÜHN, BIRETT Merkbücher Gefährliche Arbeitsstoffe (Data Sheets of Hazardous Substances)

Revisions/Updates

Reason for Revision: 2016-03 Adaptation of regulation 1221/2015/EU

You find our current versions of MSDS in Internet:
<http://www.mn-net.com/MSDS>