



# SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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## Universal Expansion liquid [EU]

Revision 1  
Revision date 2022-04-06

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

#### 1.1. Product identifier

Product name Universal Expansion liquid [EU]

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

Company	Ransom & Randolph
Address	3535 Briarfield Boulevard, PO Box 1570 Maumee, Ohio 43537 USA
Web	www.ransom-randolph.com
Telephone	+1 (419) 865-9497
Fax	+1 (419) 865-9997
Email	SDS@ransom-randolph.com
Email address of the competent person	dyouel@ransom-randolph.com

#### 1.4. Emergency telephone number

Emergency telephone number	USA +1 419 865 9497
Company	Ransom & Randolph Co. 08:00-17:00 (US Eastern Std. / GMT minus 5)

### SECTION 2: Hazards identification

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

2.1.2. Classification - EC 1272/2008	Acute Tox. 4: H302; Skin Sens. 1: H317; STOT SE 1: H370;
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#### 2.2. Label elements

Hazard pictograms	
Signal Word	Danger
Hazard Statement	Acute Tox. 4: H302 - Harmful if swallowed. Skin Sens. 1: H317 - May cause an allergic skin reaction. STOT SE 1: H370 - Causes damage to organs optic nerve and central nervous system .
Precautionary Statement: Prevention	P260 - Do not breathe dust/fume/gas/mist/vapours/spray. P261 - Avoid breathing dust/fume/gas/mist/vapours/spray. P264 - Wash (hands) thoroughly after handling. P270 - Do no eat, drink or smoke when using this product. P272 - Contaminated work clothing should not be allowed out of the workplace. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
Precautionary Statement: Response	P301+P312 - IF SWALLOWED: Call a POISON CENTER/doctor/ /if you feel unwell. P302+P352 - IF ON SKIN: Wash with plenty of water/ . P321 - Specific treatment (see on this label).

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## 2.2. Label elements

Precautionary Statement: Storage	P330 - Rinse mouth.
	P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
Precautionary Statement: Disposal	P405 - Store locked up.
	P501 - Dispose of contents/container to local and national regulations

## 2.3. Other hazards

Other hazards	Amorphous silica may be converted to crystalline silica (cristobalite) when subjected to very high temperatures (1700° F). Exposure to respirable crystalline silica may cause lung disease.
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## SECTION 3: Composition/information on ingredients

### 3.2. Mixtures

#### EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	613-114-00-6	4719-04-4	225-208-0		0 - 0.5%	Acute Tox. 4: H302; Skin Sens. 1: H317;
silica (amorphous)		7631-86-9	231-545-4		20 - 30%	
Methanol	603-001-00-X	67-56-1	200-659-6		1 - 10%	Flam. Liq. 2: H225; Acute Tox. 3: H331; Acute Tox. 3: H311; Acute Tox. 3: H301; STOT SE 1: H370;

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. If breathing is difficult give oxygen. Immediate medical attention is required.
Eye contact	May cause irritation to eyes. Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	Remove contaminated clothing. Wash off immediately with plenty of soap and water. Seek medical attention. Wash all contaminated clothing before reuse.
Ingestion	If swallowed, seek medical advice immediately and show this container or label. DO NOT INDUCE VOMITING. Never give anything by mouth to an unconscious person.

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

Inhalation	Inhalation may cause nausea and vomiting. Inhalation may cause coughing, tightness of the chest and irritation of the respiratory system. In severe cases, may cause loss of consciousness.
Eye contact	Corrosive and Irritant Effects. May cause irritation to skin and eyes.
Ingestion	Repeated or prolonged exposure may cause damage to liver, kidneys and central nervous system. Components(s) may cause damage to human organs based on animal data. eyes if swallowed.

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

Ingestion	Immediate medical attention is required.
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## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

	Use as appropriate: Carbon dioxide (CO2), Dry chemical, Foam.
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### 5.2. Special hazards arising from the substance or mixture

	Burning produces irritating, toxic and obnoxious fumes.
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### 5.3. Advice for firefighters

	Wear: Self-contained breathing apparatus. Wear chemical protective clothing.
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## SECTION 6: Accidental release measures

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

Ensure adequate ventilation of the working area. Wear suitable protective equipment.

### 6.2. Environmental precautions

Do not allow product to enter drains. Prevent further spillage if safe.

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

Absorb with inert, absorbent material. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.

### 6.4. Reference to other sections

See section [2, 8 & 13] for further information.

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Avoid contact with eyes and skin. Ensure adequate ventilation of the working area. Wear protective clothing. Wash hands after handling the product. Keep container tightly closed.

Do NOT reuse empty containers. S29/56 - Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point.

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

Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Avoid contact with:  
Oxidising agents.

### 7.3. Specific end use(s)

Foundry material. Restricted to professional users.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### 8.1.1. Exposure Limit Values

Ethanolamine (2-Aminoethanol)	WEL 8-hr limit ppm: 1	WEL 8-hr limit mg/m <sup>3</sup> : 2.5
	WEL 15 min limit ppm: 3	WEL 15 min limit mg/m <sup>3</sup> : 7.6
	WEL 8-hr limit mg/m <sup>3</sup> total - inhalable dust:	WEL 15 min limit mg/m <sup>3</sup> total - inhalable dust:
	WEL 8-hr limit mg/m <sup>3</sup> total - respirable dust:	WEL 15 min limit mg/m <sup>3</sup> total - respirable dust:
Methanol	WEL 8-hr limit ppm: 200	WEL 8-hr limit mg/m <sup>3</sup> : 266
	WEL 15 min limit ppm: 250	WEL 15 min limit mg/m <sup>3</sup> : 333
	WEL 8-hr limit mg/m <sup>3</sup> total - inhalable dust:	WEL 15 min limit mg/m <sup>3</sup> total - inhalable dust:
	WEL 8-hr limit mg/m <sup>3</sup> total - respirable dust:	WEL 15 min limit mg/m <sup>3</sup> total - respirable dust:

### 8.2. Exposure controls



#### 8.2.1. Appropriate engineering controls

Ensure adequate ventilation of the working area.

#### 8.2.2. Individual protection measures

Wear chemical protective clothing.

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## 8.2. Exposure controls

Eye / face protection	Approved safety goggles.
Skin protection - Handprotection	Chemical resistant gloves (PVC).
Respiratory protection	Not normally required. In case of insufficient ventilation, wear suitable respiratory equipment. organic vapours. After selection by a Qualified person.

## SECTION 9: Physical and chemical properties

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

Appearance	Liquid
Colour	Off white
Odour	Odourless
pH	10
Melting point	0 °C
Vapour pressure	2300 Pa
Vapour density	0.016
Partition coefficient	No data available
Autoignition temperature	No data available
Viscosity	No data available
Explosive properties	No data available
Oxidising properties	No data available
Flash point	No data available
Evaporation rate	No data available
Relative density	= 1.26 (H <sub>2</sub> O = 1 @ 20 °C)
Freezing Point	≈ 0 °C
Initial boiling point	≈ 100 °C
Fat Solubility	Not applicable.
Flammability (solid, gas)	Not applicable.
Odour threshold	Not applicable.
Solubility	Soluble in water

### 9.2. Other information

Conductivity	No data available
Surface tension	No data available
Gas group	Not applicable.
Benzene Content	Not applicable.
Lead content	Not applicable.
VOC (Volatile organic compounds)	Not applicable.

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

	Not applicable.
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### 10.2. Chemical stability

	Stable under normal conditions.
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### 10.3. Possibility of hazardous reactions

	Hazardous polymerization does not occur. Methanol CAS 67-56-1. can react vigorously with. Oxidising agents.
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### 10.4. Conditions to avoid

	Store at temperatures above 5 °C.
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## 10.5. Incompatible materials

Organic materials. Strong acids.

## 10.6. Hazardous decomposition products

Carbon dioxide (CO<sub>2</sub>). Carbon oxides.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	Eyes: Contact may cause irritation with redness and tearing.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Component(s) causes damage to human organs. optic nerve and central nervous system.
STOT-repeated exposure	No data available.
Aspiration hazard	Based on available data, the classification criteria are not met.
Repeated or prolonged exposure	May cause damage to organs [], optic nerve and central nervous system, May cause damage to liver and kidneys.

### 11.1.2. Mixtures

Product ATE Oral 2000 mg/kg, skin > 5000 mg/kg, Inhalation > 20 mg/L.

### 11.1.4. Toxicological Information

Methanol	<b>Oral Rat LD50:</b> 5600 mg/kg <b>Inhalation Rat LC50/4 h:</b> 64,000 ppm	<b>Dermal Rabbit LD50:</b> 15,800 mg/kg
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## SECTION 12: Ecological information

### 12.1. Toxicity

Methanol	<b>Daphnia EC50/48h:</b> 10000.0000 mg/l	<b>Fish LC50/96h:</b> 29400.0000 mg/l
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### 12.2. Persistence and degradability

Methanol CAS 67-56-1. Readily biodegradable.

### 12.3. Bioaccumulative potential

Lowest observed adverse effect concentration.

### Partition coefficient

Universal Expansion liquid [EU] No data available

### 12.4. Mobility in soil

Methanol CAS 67-56-1. very high mobility in soils.

## SECTION 13: Disposal considerations

### General information

Dispose of in compliance with all local and national regulations.

### Disposal methods

This material and its container must be disposed of in a safe way.

### Disposal of packaging

Do NOT reuse empty containers.

## SECTION 14: Transport information

### 14.1. UN number

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<b>14.1. UN number</b>	
	The product is not classified as dangerous for carriage.
<b>14.2. UN proper shipping name</b>	
	The product is not classified as dangerous for carriage.
<b>14.3. Transport hazard class(es)</b>	
	The product is not classified as dangerous for carriage.
<b>14.4. Packing group</b>	
	The product is not classified as dangerous for carriage.
<b>14.5. Environmental hazards</b>	
	The product is not classified as dangerous for carriage.
<b>14.6. Special precautions for user</b>	
	The product is not classified as dangerous for carriage.
<b>14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code</b>	
	The product is not classified as dangerous for carriage.

## SECTION 15: Regulatory information

<b>15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture</b>	
<b>Regulations</b>	<p>COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.</p> <p>COMMISSION REGULATION (EU) No 453/2010 of 20 May 2010 amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC.</p>
<b>15.2. Chemical safety assessment</b>	
	No data is available on this product.

## SECTION 16: Other information

<b>Other information</b>	
<b>Revision</b>	This document differs from the previous version in the following areas: 2 - Hazard pictograms. 4 - Skin contact. 4 - Inhalation. 4 - Ingestion.
<b>Text of Hazard Statements in Section 3</b>	Acute Tox. 4: H302 - Harmful if swallowed. Skin Sens. 1: H317 - May cause an allergic skin reaction. Flam. Liq. 1: H224 - Extremely flammable liquid and vapour. Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled STOT SE 1: H370 - Causes damage to organs . STOT SE 2: H371 - May cause damage to organs .
<b>Further information</b>	
	The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. This information

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**Further information**

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	relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any other process.
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