



SAFETY DATA SHEET

according to Regulation (EU) 2015/830

Page 1/7

Universal Expansion liquid [NA]

Revision 2

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 [NA]

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;

2.2. Label elements

Hazard pictograms This substance / mixture has been classified in accordance with the US Federal OSHA Hazard Communication Standard 29CFR 1910.1200. Substance concentration band-ranges are presented, and minor ingredient composition maybe withheld, to protect trade secrets.



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.

Universal Expansion liquid [NA]

Revision 2
Revision date 2022-04-06

2.2. Label elements

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). P330 - Rinse mouth. P333+P313 - If skin irritation or rash occurs: Get medical advice/attention.
Precautionary Statement: Storage	P405 - Store locked up.
Precautionary Statement: Disposal	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 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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Universal Expansion liquid [NA]

Revision 2

Revision date 2022-04-06

5.3. Advice for firefighters

Wear: Self-contained breathing apparatus. Wear chemical protective clothing.

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

exposure limits: Silica, vitreous (fused, amorphous) 80 mg/m³ / (% Silica), TWA PEL (respirable fraction).

exposure limits: Methanol - 200 ppm OSHA PEL, 200 ppm TWA & 250 ppm STEL ACGIH TLV (skin).

8.1.1. Exposure Limit Values

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


8.2. Exposure controls

Universal Expansion liquid [NA]

Revision 2

Revision date 2022-04-06

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.
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
Odour threshold	Not applicable.
pH	10
Melting point	0 °C
Freezing Point	≈ 0 °C
Initial boiling point	≈ 100 °C
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable.
Vapour pressure	2300 Pa
Vapour density	0.016
Relative density	= 1.26 (H ₂ O = 1 @ 20 °C)
Fat Solubility	Not applicable.
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
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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Universal Expansion liquid [NA]

Revision 2
Revision date 2022-04-06

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur. Methanol CAS 67-56-1. can react vigorously with Oxidising agents.

10.4. Conditions to avoid

Store at temperatures above 5 °C.

10.5. Incompatible materials

Organic materials. Strong acids.

10.6. Hazardous decomposition products

Carbon dioxide (CO₂). 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	Oral Rat LD ₅₀ : 5600 mg/kg Inhalation Rat LC _{50/4 h} : 64,000 ppm	Dermal Rabbit LD ₅₀ : 15,800 mg/kg
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SECTION 12: Ecological information

12.1. Toxicity

Methanol	Daphnia EC _{50/48h} : 10000.0000 mg/l	Fish LC _{50/96h} : 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 [NA] No data available

12.4. Mobility in soil

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

SECTION 13: Disposal considerations

General information

Universal Expansion liquid [NA]

Revision 2
Revision date 2022-04-06

General information

	Dispose of in compliance with all local and national regulations.
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Disposal methods

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

	Do NOT reuse empty containers.
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SECTION 14: Transport information

14.1. UN number

	The product is not classified as dangerous for carriage.
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14.2. UN proper shipping name

	The product is not classified as dangerous for carriage.
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14.3. Transport hazard class(es)

	The product is not classified as dangerous for carriage.
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14.4. Packing group

	The product is not classified as dangerous for carriage.
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14.5. Environmental hazards

	The product is not classified as dangerous for carriage.
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14.6. Special precautions for user

	The product is not classified as dangerous for carriage.
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14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

	The product is not classified as dangerous for carriage.
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SECTION 15: Regulatory information

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

Regulations	<p>U.S. FEDERAL REGULATIONS: Universal Expansion liquid</p> <p>CERCLA 103 Reportable Quantity: RQ for product is 100,000 pounds (based on a RQ of 5000 pounds for Methanol 5%. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.</p> <p>SARA TITLE III: Hazard Category For Section 311/312: Acute health, Chronic health</p> <p>Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Methanol CAS 67-56-1 1-10%.</p> <p>Section 302 Extremely Hazardous Substances (TPQ): None</p> <p>EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.</p> <p>U.S. STATE REGULATIONS California Proposition 65: WARNING: This product can expose you to chemicals including Methanol, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.</p> <p>INTERNATIONAL REGULATIONS:</p>
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Universal Expansion liquid [NA]

Revision 2

Revision date 2022-04-06

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

Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).

European Inventory of New and Existing Chemicals Substances (EINECS): All of the components in this product are listed on the EINECS inventory.

CERCLA 103 Reportable Quantity: RQ for product is 100,000 pounds (based on a RQ of 5000 pounds for Methanol 5%. Many states have more stringent release reporting requirements. Report spills required under federal, state and local regulations.

SARA TITLE III:
Hazard Category For Section 311/312: Acute health, Chronic health

Section 313 Toxic Chemicals: This product contains the following chemicals subject to Annual Release Reporting Requirements Under SARA Title III, Section 313 (40 CFR 372): Methanol CAS 67-56-1 1-10%.

Section 302 Extremely Hazardous Substances (TPQ): None

EPA Toxic Substances Control Act (TSCA) Status: All of the components of this product are listed on the TSCA inventory.

U.S. STATE REGULATIONS
California Proposition 65: This product can expose you to chemicals including Methanol, which is known to the State of California to birth defects and other reproductive harm. For more information go to www.p65Warnings.ca.gov.

INTERNATIONAL REGULATIONS:
Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).

European Inventory of New and Existing Chemicals Substances (EINECS): All of the components in this product are listed on the EINECS inventory.

15.2. Chemical safety assessment

No data is available on this product.

SECTION 16: Other information

Other information

Revision	This document differs from the previous version in the following areas: 2 - Hazard pictograms.
Text of Hazard Statements in Section 3	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 .

Further information

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 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.