



# SAFETY DATA SHEET

according to Regulation (EU) 2015/830

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## B Binder for Neoloy E [EU]

Revision 0

Revision date 2021-08-03

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

#### 1.1. Product identifier

**Product name** B Binder for Neoloy E [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** Flam. Liq. 3: H226; Eye Irrit. 2: H319; Acute Tox. 4: H332; STOT SE 3: H335;

#### 2.2. Label elements

**Hazard pictograms** 

**Signal Word** Warning

**Hazard Statement** Flam. Liq. 3: H226 - Flammable liquid and vapour.  
Eye Irrit. 2: H319 - Causes serious eye irritation.  
Acute Tox. 4: H332 - Harmful if inhaled.  
STOT SE 3: H335 - May cause respiratory irritation.

**Precautionary Statement: Prevention** P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.  
P233 - Keep container tightly closed.  
P240 - Ground/bond container and receiving equipment.  
P241 - Use explosion-proof electrical/ventilating/lighting// equipment.  
P242 - Use only non-sparking tools.  
P243 - Take precautionary measures against static discharge.  
P261 - Avoid breathing dust/fume/gas/mist/vapours/spray.

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## 2.2. Label elements

Precautionary Statement: Response	P264 - Wash (hands) thoroughly after handling. P271 - Use only outdoors or in a well-ventilated area. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
	P303+P361+P353 - IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. P304+P340 - IF INHALED: Remove person to fresh air and keep comfortable for breathing. P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P312 - Call a POISON CENTER/doctor/ 800-222-1222 /if you feel unwell. P337+P313 - If eye irritation persists: Get medical advice/attention. P370+P378 - In case of fire: Use dry chemical, Carbon dioxide (CO <sub>2</sub> ), Alcohol resistant foam to extinguish.
Precautionary Statement: Storage	P403+P233 - Store in a well-ventilated place. Keep container tightly closed. P403+P235 - Store in a well-ventilated place. Keep cool. P405 - Store locked up.
Precautionary Statement: Disposal	P501 - Dispose of contents/container to local and national regulations

## Further information

Not applicable. PBT and vPvB assessment.

## 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
Tetraethyl silicate (Tetraethyl orthosilicate)	014-005-00-0	78-10-4	201-083-8		90 - 100%	Flam. Liq. 3: H226; Acute Tox. 4: H332; Eye Irrit. 2: H319; STOT SE 3: H335;
Ethyl Polysilicate		11099-06-2			1 - 10%	Flam. Liq. 3: H226; Eye Irrit. 2: H319;
Ethanol	603-002-00-5	64-17-5	200-578-6		1 - 10%	Flam. Liq. 2: H225;

## Further information

Full text for all Risk Phrases mentioned in this section are displayed in Section 16.

## SECTION 4: First aid measures

## 4.1. Description of first aid measures

Inhalation	Move the exposed person to fresh air. Seek medical attention.
Eye contact	Rinse immediately with plenty of water for 15 minutes holding the eyelids open. Seek medical attention if irritation or symptoms persist.
Skin contact	Wash off immediately with plenty of soap and water. Remove contaminated clothing. Seek medical attention if irritation or symptoms persist.
Ingestion	Seek medical attention if irritation or symptoms persist. DO NOT INDUCE VOMITING.

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

Inhalation	Harmful by inhalation. Irritant, moderate respiratory. Inhalation may cause nausea and vomiting.
Eye contact	Irritant, moderate eye.
Skin contact	Irritating to skin.
Ingestion	Repeated or prolonged exposure may cause damage to liver, kidneys and central nervous system.

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

Ingestion	Seek medical attention if irritation or symptoms persist.
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**SECTION 5: Firefighting measures****5.1. Extinguishing media**

	Use as appropriate: Water spray. Dry chemical. Carbon dioxide (CO <sub>2</sub> ). Alcohol resistant foam.
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**5.2. Special hazards arising from the substance or mixture**

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**5.3. Advice for firefighters**

	Cool fire exposed containers with waterspray. Self-contained breathing apparatus. Wear protective clothing.
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	In use may form flammable/explosive vapour-air mixture. Vapours are heavier than air. Vapour may travel considerable distance to source of ignition and flash back. Risk of explosion if heated under confinement. Burning produces irritating, toxic and obnoxious fumes.
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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. Eliminate all sources of ignition. Evacuate personnel to a safe area.
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**6.2. Environmental precautions**

	Do not allow product to enter drains. Prevent further spillage if safe.
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**6.3. Methods and material for containment and cleaning up**

	Absorb with inert, absorbent material. Sweep up. Transfer to suitable, labelled containers for disposal. Clean spillage area thoroughly with plenty of water.
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**6.4. Reference to other sections**

	See section [2, 8 & 13] for further information.
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**SECTION 7: Handling and storage****7.1. Precautions for safe handling**

	Avoid contact with eyes and skin. Avoid breathing dust/fume/gas/mist/vapours/spray. Wear protective clothing. Wash hands after handling the product. Ensure adequate ventilation of the working area. Keep away from sources of ignition - No smoking. Use explosion proof equipment. Ground/bond container and receiving equipment.
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	Do NOT reuse empty containers. Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated.
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**7.2. Conditions for safe storage, including any incompatibilities**

	Keep in a cool, dry, well ventilated area. Keep containers tightly closed. Store in correctly labelled containers.
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**7.3. Specific end use(s)**

	Restricted to professional users.
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**SECTION 8: Exposure controls/personal protection****8.1. Control parameters**

	exposure limits: Ethyl Silicate - 100 ppm TWA OSHA PEL, 10 ppm TWA ACGIH. exposure limits: Ethanol - 1000 ppm TWA OSHA PEL, 1000 ppm STEL ACGIH TLV.
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**8.1.1. Exposure Limit Values**

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## 8.1.1. Exposure Limit Values

Ethanol	WEL 8-hr limit ppm: 1000	WEL 8-hr limit mg/m3: 1920
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m3: -
	WEL 8-hr limit mg/m3 total inhalable dust: -	WEL 15 min limit mg/m3 total inhalable dust: -
	WEL 8-hr limit mg/m3 total respirable dust: -	WEL 15 min limit mg/m3 total respirable dust: -
Tetraethyl silicate (Tetraethyl orthosilicate)	DIR: 2017/164	8hTWA mg/m3: 44
	8hTWA ppm: 5	STEL mg/m3: -
	STEL ppm: -	NOT: -

## 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.

## SECTION 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

Appearance	Liquid
Colour	Clear
Odour	Pleasant
Odour threshold	No data available
pH	No data available
Melting point	Not applicable.
Freezing Point	No data available
Initial boiling point	= 168 °C
Flash point	27 °C
Evaporation rate	Not determined
Flammability (solid, gas)	Not applicable.
Vapour Flammability	No data available
Upper Explosive Limit	19 %
Lower Explosive Limit	3.8 %
Vapour pressure	= 1700 Pa
Vapour density	= 7.22
Relative density	= 0.934 (H2O = 1 @ 20 °C)
Fat Solubility	No data available
Partition coefficient	No data available
Autoignition temperature	> 360 °C
Decomposition temperature	No data available
Viscosity	= 0.72
Oxidising properties	No data available

## 9.2. Other information

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## 9.2. Other information

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

## SECTION 10: Stability and reactivity

## 10.1. Reactivity

	No data available.
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## 10.2. Chemical stability

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

	Hazardous polymerization is not expected to occur.
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## 10.4. Conditions to avoid

	Heat, sparks and open flames.
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## 10.5. Incompatible materials

	Avoid contact with: Acids, Oxidising agents, Alkalis.
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## 10.6. Hazardous decomposition products

	Carbon oxides, silicon dioxide may be formed in fire conditions.
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## SECTION 11: Toxicological information

## 11.1. Information on toxicological effects

Acute toxicity	Harmful by inhalation.
Skin corrosion/irritation	Prolonged or repeated exposure may cause irritation to skin and mucous membranes.
Serious eye damage/irritation	Eyes: Contact may cause irritation with redness and tearing.
Respiratory or skin sensitisation	No Significant Hazard.
Germ cell mutagenicity	Adverse mutagenic and teratogenic effects have been found in laboratory animals.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Prolonged or repeated exposure may cause: Possible risk of harm to the unborn child.
STOT-single exposure	May cause damage to human organs based on animal data.
STOT-repeated exposure	May cause damage to human organs based on animal data.
Aspiration hazard	Based on available data, the classification criteria are not met.

## 11.1.4. Toxicological Information

	ethyl silicate. Oral Rat LD50 = >2500 mg/kg. Inhalation Rat LC50/5.03 mg/L h = 4.
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## SECTION 12: Ecological information

## 12.2. Persistence and degradability

	has an atmospheric half life of about 16 hours.
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## 12.3. Bioaccumulative potential

	Lowest observed effect level.
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## Partition coefficient

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## Partition coefficient

B Binder for Neoloy E [EU] No data available

## 12.4. Mobility in soil

very high mobility in soils.

## 12.5. Results of PBT and vPvB assessment

Not applicable.

## 12.6. Other adverse effects

This product hydrolyzes slowly in wet alkaline or acidic conditions to silicone dioxide and ethanol.

## SECTION 13: Disposal considerations

## General information

Dispose of in compliance with all local and national regulations.

## Disposal of packaging

Do NOT reuse empty containers. Once the product residues adhering to the walls of the containers have been rendered harmless, the product and hazard labels must be invalidated.

## SECTION 14: Transport information

## Hazard pictograms



## 14.1. UN number

UN1993

## 14.2. UN proper shipping name

FLAMMABLE LIQUID, N.O.S. (Ethyl Silicate, Ethanol)

## 14.3. Transport hazard class(es)

ADR/RID	3
Subsidiary risk	-
IMDG	3
Subsidiary risk	-
IATA	3
Subsidiary risk	-

## 14.4. Packing group

Packing group III

## 14.5. Environmental hazards

Environmental hazards	No
Marine pollutant	No

## ADR/RID

Hazard ID	30
Tunnel Category	(D/E)

## IMDG

EmS Code F-E S-E

## IATA

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## IATA

Packing Instruction (Cargo)	366
Maximum quantity	220 L
Packing Instruction (Passenger)	355
Maximum quantity	60 L

## SECTION 15: Regulatory information

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

Regulations	<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>REGULATION (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 concerning 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>
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## 15.2. Chemical safety assessment

	No data is available on this product.
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## SECTION 16: Other information

## Other information

Text of Hazard Statements in Section 3	<p>Flam. Liq. 3: H226 - Flammable liquid and vapour.</p> <p>Eye Irrit. 2: H319 - Causes serious eye irritation.</p> <p>Acute Tox. 4: H332 - Harmful if inhaled.</p> <p>STOT SE 3: H335 - May cause respiratory irritation.</p> <p>Flam. Liq. 2: H225 - Highly flammable liquid and vapour.</p>
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## 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.
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