

SAFETY DATA SHEET

according to 29 CFR 1910.1200 and GHS

FlashCast Binder

Revision 0
Revision date 2026-02-03

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

1.1. Product identifier

Product name	FlashCast Binder
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1.3. Details of the supplier of the safety data sheet


Company	Ransom & Randolph
Address	3535 Briarfield Boulevard 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	rcarter@ransom-randolph.com

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.2. Classification - GHS	Acute Tox. 4: H302; Skin Sens. 1: H317; STOT SE 1: H370;
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2.2. Label elements

Hazard pictograms	<p>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.</p> <div style="text-align: center;">  </div>
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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

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3.2. Mixtures

EC 1272/2008

Chemical Name	Index No.	CAS No.	EC No.	REACH Registration Number	Conc. (%w/w)	Classification
78% CAS 4719-04-4 and 3% CAS 14143-5						Acute Tox. 4: H302; Skin Sens. 1: H317; Eye Irrit. 2: H319;
2,2',2''-(Hexahydro-1,3,5-triazine-1,3,5-triyl)triethanol	613-114-00-6	4719-04-4	225-208-0			Acute Tox. 4: H302; Skin Sens. 1: H317;
deionized water		7732-18-5	231-791-2			
silica (amorphous)		7631-86-9	231-545-4			
Methanol	603-001-00-X	67-56-1	200-659-6			Flam. Liq. 2: H225; Acute Tox. 3: H331; Acute Tox. 3: H301; STOT SE 1: H370;
Ethanolamine	603-030-00-8	141-43-5	205-483-3			Acute Tox. 4: H332; Acute Tox. 4: H312; Acute Tox. 4: H302; Skin Corr. 1B: H314;

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 noxious 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.
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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

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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 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:
Oxidizing 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).

Exposure Limit Values

Ethanolamine	ACGIH TLV TWA: 3 ppm Notations: - OSHA PEL 8hr TWA mg m ³ : 6 NIOSH REL 10hr TWA ppm: NIOSH REL 15 min ST ppm:	ACGIH TLV STEL: 6 ppm OSHA PEL 8hr TWA ppm: 3 Skin Designation: - NIOSH REL 10hr TWA mg m ³ : NIOSH REL 15 min ST mg m ³ :
Methanol	ACGIH TLV TWA: 200 ppm Notations: Skin; BEI OSHA PEL 8hr TWA mg m ³ : 260 NIOSH REL 10hr TWA ppm: NIOSH REL 15 min ST ppm:	ACGIH TLV STEL: 250 ppm OSHA PEL 8hr TWA ppm: 200 Skin Designation: - NIOSH REL 10hr TWA mg m ³ : NIOSH REL 15 min ST mg m ³ :

8.2. Exposure controls

	
Appropriate engineering controls	Ensure adequate ventilation of the working area.
Individual protection measures	Wear chemical protective clothing.
Eye / face protection	Approved safety goggles.
Skin protection - Hand protection	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.

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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

State	Liquid
Color	Off white
Odor	Odorless
Odor threshold	
pH	10
Melting point	0 °C
Freezing Point	0 °C
Initial boiling point	100 °C
Flash point	
Evaporation rate	
Flammability limits	
Vapor pressure	2300 Pa
Relative Vapour Density	0.016
Density / Relative Density	1.26 (H2O = 1 @ 20 °C)
Fat Solubility	
Partition coefficient	
Autoignition temperature	
Viscosity	
Explosive properties	
Oxidizing properties	
Solubility	Soluble in water

9.2. Other information

Conductivity	
Surface tension	
Gas group	
Benzene Content	
Lead content	
VOC (Volatile organic compounds)	

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. Oxidizing 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.
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10.6. Hazardous decomposition products

	Carbon dioxide (CO2). Carbon oxides.
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SECTION 11: Toxicological information

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11.1 Information on hazard classes

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.
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11.1.4. Toxicological information

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

12.1. Toxicity

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

	Methanol CAS 67-56-1. Readily biodegradable.
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12.3. Bioaccumulative potential

	Lowest observed adverse effect concentration.
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Partition coefficient

	FlashCast Binder
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12.4. Mobility in soil

	Methanol CAS 67-56-1. very high mobility in soils.
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SECTION 13: Disposal considerations

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.

14.5. Environmental hazards

The product is not classified as dangerous for carriage.

14.6. Special precautions for user

The product is not classified as dangerous for carriage.

14.7 Maritime Transport in bulk according to IMO instruments

The product is not classified as dangerous for carriage.

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: Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).</p> <p>European Inventory of New and Existing Chemicals Substances (EINECS): All of the components in this product are listed on the EINECS inventory.</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>

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

	<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: 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.</p> <p>INTERNATIONAL REGULATIONS: Canadian Environmental Protection Act: All of the components in this product are listed on the Domestic Substances List (DSL).</p> <p>European Inventory of New and Existing Chemicals Substances (EINECS): All of the components in this product are listed on the EINECS inventory.</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>Acute Tox. 4: H302 - Harmful if swallowed.</p> <p>Skin Sens. 1: H317 - May cause an allergic skin reaction.</p> <p>Eye Irrit. 2: H319 - Causes serious eye irritation.</p> <p>Flam. Liq. 1: H224 - Extremely flammable liquid and vapour.</p> <p>Acute Tox. 3: H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled</p> <p>STOT SE 1: H370 - Causes damage to organs .</p> <p>STOT SE 2: H371 - May cause damage to organs .</p> <p>Acute Tox. 4: H312 - Harmful in contact with skin.</p> <p>Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.</p> <p>Acute Tox. 4: H332 - Harmful if inhaled.</p> <p>STOT SE 3: H335 - May cause respiratory irritation.</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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