



# SAFETY DATA SHEET

according to Regulation (EU) 2020/878

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## Multiflex Duplicating Material

Revision 1  
Revision date 2023-05-08

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

#### 1.1. Product identifier

Product name	Multiflex Duplicating Material
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#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Product Use	[SU3] Industrial uses: Uses of substances as such or in preparations at industrial sites;
Description	Foundry material.

#### 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	rcarter@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	Skin Irrit. 2: H315; Eye Irrit. 2: H319;
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#### 2.2. Label elements

Hazard pictograms	While this material is not considered hazardous under the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and made available for employees and other other users of this product.
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Signal Word	Warning
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## 2.2. Label elements

<b>Hazard Statement</b>	Skin Irrit. 2: H315 - Causes skin irritation. Eye Irrit. 2: H319 - Causes serious eye irritation.
<b>Precautionary Statement: Prevention</b>	Avoid contact with skin and eyes. P264 - Wash thoroughly after handling. P280 - Wear protective gloves/protective clothing/eye protection/face protection.
<b>Precautionary Statement: Response</b>	P302+P352 - IF ON SKIN: Wash with plenty of water/ . P305+P351+P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P321 - Specific treatment (see on this label). P332+P313 - If skin irritation occurs: Get medical advice/attention. P337+P313 - If eye irritation persists: Get medical advice/attention.

## Further information

	Not applicable. PBT and vPvB assessment.
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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
glycerin (Glycerol, mist)		56-81-5	200-289-5		30 - 40%	
aluminum sulfate tech powder		16828-12-9			1 - 10%	Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Aquatic Chronic 3: H412;
Sodium hydroxide	011-002-00-6	1310-73-2	215-185-5		1 - 10%	Skin Corr. 1A: H314;

## SECTION 4: First aid measures

### 4.1. Description of first aid measures

<b>Inhalation</b>	Move the exposed person to fresh air.
<b>Eye contact</b>	Rinse immediately with plenty of water for 15 minutes holding the eyelids open.
<b>Skin contact</b>	Wash with soap and water.
<b>Ingestion</b>	Drink 1 to 2 glasses of water. DO NOT INDUCE VOMITING.

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

<b>Inhalation</b>	May cause irritation to respiratory system.
<b>Eye contact</b>	May cause irritation to eyes.
<b>Skin contact</b>	May cause irritation to skin.
<b>Ingestion</b>	May cause irritation to mucous membranes.

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

<b>Inhalation</b>	Seek medical attention if irritation or symptoms persist.
<b>Eye contact</b>	Seek medical attention if irritation or symptoms persist.
<b>Skin contact</b>	Seek medical attention if irritation or symptoms persist.
<b>Ingestion</b>	Seek medical attention if irritation or symptoms persist.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

	Use extinguishing media appropriate to the surrounding fire conditions.
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## 5.2. Special hazards arising from the substance or mixture

Burning produces irritating, toxic and obnoxious fumes. Carbon oxides.

## 5.3. Advice for firefighters

Self-contained breathing apparatus. Wear suitable protective clothing.

## SECTION 6: Accidental release measures

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

Wear suitable protective equipment.

### 6.2. Environmental precautions

Avoid release to the environment. Refer to special instructions/Safety data sheets.

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

Absorb with inert, absorbent material. Transfer to suitable, labelled container.

### 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. Wash hands after handling the product.

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

Do NOT allow to freeze. Keep in a cool, dry, well ventilated area. Keep containers tightly closed.

### 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


glycerin (Glycerol, mist)	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m3: 10
	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: -
Sodium hydroxide	WEL 8-hr limit ppm: -	WEL 8-hr limit mg/m3: -
	WEL 15 min limit ppm: -	WEL 15 min limit mg/m3: 2
	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: -

### 8.2. Exposure controls

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## 8.2. Exposure controls

	
8.2.1. Appropriate engineering controls	Ensure adequate ventilation of the working area.
Eye / face protection	In case of splashing, wear:.. Approved safety goggles.
Skin protection - Handprotection	Wear suitable gloves.
Respiratory protection	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	Gel
Colour	Blue/Light brown
pH	No data available
Melting point	= 96 °C
Freezing Point	No data available
Initial boiling point	No data available
Flash point	Not applicable.
Evaporation rate	No data available
Flammability (solid, gas)	Not applicable.
Vapour pressure	No data available
Relative Vapour Density	No data available
Density / Relative Density	1.1 (H <sub>2</sub> O = 1 @ 20 °C)
Fat Solubility	Not applicable.
Partition coefficient	No data available
Autoignition temperature	= 370 °C
Viscosity	No data available
Explosive properties	Not applicable.
Oxidising properties	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

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## 10.2. Chemical stability

Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

## 10.4. Conditions to avoid

Direct sunlight. Do NOT allow to freeze.

## 10.5. Incompatible materials

Oxidizer. agents.

## 10.6. Hazardous decomposition products

None.

## SECTION 11: Toxicological information

### 11.1 Information on hazard classes

Acute toxicity	Based on available data, the classification criteria are not met.
Skin corrosion/irritation	May cause irritation to skin.
Serious eye damage/irritation	May cause irritation to eyes.
Respiratory or skin sensitisation	Based on available data, the classification criteria are not met.
Germ cell mutagenicity	Based on available data, the classification criteria are not met.
Carcinogenicity	Based on available data, the classification criteria are not met.
Reproductive toxicity	Based on available data, the classification criteria are not met.
STOT-single exposure	Based on available data, the classification criteria are not met.
STOT-repeated exposure	Based on available data, the classification criteria are not met.
Aspiration hazard	Based on available data, the classification criteria are not met.
Repeated or prolonged exposure	May cause irritation to skin.

### 11.1.4. Toxicological Information

glycerin	Inhalation Rat LC50/>570 h: 1	Oral Rat LD50: 12600 mg/kg
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## SECTION 12: Ecological information

### 12.1. Toxicity

glycerin	Daphnia EC50/48h: 10000 mg/l	Fish LC50/96h: 10000.0000 mg/l
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### 12.2. Persistence and degradability

No data is available on this product.

### 12.3. Bioaccumulative potential

Does not bioaccumulate.

### Partition coefficient

**Multiflex Duplicating Material** No data available

### 12.4. Mobility in soil

very high mobility in soils.

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## 12.5. Results of PBT and vPvB assessment

Not applicable.

## 12.7 Other adverse effects

Not applicable.

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

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

### Disposal methods

Contact a licensed waste disposal company.

### Disposal of packaging

Do NOT reuse empty containers. Empty containers can be sent for disposal or recycling.

## SECTION 14: Transport information

### 14.1. UN number

The product is not classified as dangerous for carriage.

### 14.2. UN proper shipping name

The product is not classified as dangerous for carriage.

### 14.3. Transport hazard class(es)

The product is not classified as dangerous for carriage.

### 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.

### Further information

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

U.S. FEDERAL REGULATIONS: Multiflex (TM) duplicating material. CERCLA 103 Reportable Quantity: are not subject to CERCLA reporting requirements. 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: None - see Section 2

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): None

Section 302 Extremely Hazardous Substances (TPQ): None.

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## 15.2. Chemical safety assessment

No data is available on this product.

## SECTION 16: Other information

## Other information

<b>Revision</b>	<p>This document differs from the previous version in the following areas:.</p> <ul style="list-style-type: none"> <li>2 - 2.1. Classification of the substance or mixture.</li> <li>2 - 2.1.2. Classification - EC 1272/2008.</li> <li>2 - Hazard pictograms.</li> <li>2 - Signal Word.</li> <li>2 - Precautionary Statement: Prevention.</li> <li>2 - Precautionary Statement: Response.</li> <li>12 - 12.1. Toxicity.</li> <li>15 - Labelling.</li> <li>15 - Hazard Statement.</li> <li>15 - Regulations.</li> </ul>
<b>Text of Hazard Statements in Section 3</b>	<p>Skin Irrit. 2: H315 - Causes skin irritation.          Eye Irrit. 2: H319 - Causes serious eye irritation.          STOT SE 3: H335 - May cause respiratory irritation.          Aquatic Chronic 3: H412 - Harmful to aquatic life with long lasting effects.          Skin Corr. 1B: H314 - Causes severe skin burns and eye damage.          Skin Corr. 1A: H314 - Causes severe skin burns and eye damage.</p>

## 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.