



## SAFETY DATA SHEET FR5 MAX | Part A (Resin)

According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

### 1. Identification

#### Product identifier

**Product name** FR5 MAX | Part A

#### Recommended use of the chemical and restrictions on use

**Restriction on use** Resin.

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

**Supplier** UCAN Fastening Products  
155 Champagne Drive, Unit 10  
Toronto, Ontario, M3J 2C6  
Tel.: 416-631-9400 | Fax: 416-631-9426 | Email: sales@ucanfast.com  
Toll Free: CAD 1-800-268-1248 | USA 1-800-461-8226

**Web** www.ucanfast.com

**Contact person** Balwant K. Arjune | 416-631-9400 Ex. 252

#### Emergency telephone number

**Emergency telephone** CHEMTRAC 800-424-9300 (24 hr. Emergency)

### 2. Hazard identification

#### Classification of the substance or mixture

**Physical hazards** Flam. Liq. 3 - H226

**Health hazards** Eye Irrit. 2 - H319 Skin Sens. 1 - H317

#### Label elements

##### Pictogram



**Signal word** Warning

**Hazard statements** H226 Flammable liquid and vapour.  
H319 Causes serious eye irritation.  
H317 May cause an allergic skin reaction.

## FR5 MAX | Part A (Resin)

<b>Precautionary statements</b>	<p>P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.</p> <p>P233 Keep container tightly closed.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.</p> <p>P403+P235 Store in a well-ventilated place. Keep cool.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
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**Contains** 2-HYDROXYPROPYL METHACRYLATE

### 3. Composition/information on ingredients

#### Mixtures

<b>2-HYDROXYPROPYL METHACRYLATE</b>	<b>5-10%</b>
CAS number: 27813-02-1	
<b>VINYL TOLUENE</b>	<b>5-10%</b>
CAS number: 25013-15-4	

### 4. First-aid measures

#### Description of first aid measures

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

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

<b>Inhalation</b>	May cause respiratory irritation.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	May cause skin irritation/eczema.
<b>Eye contact</b>	Irritation of eyes and mucous membranes.

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

**Notes for the doctor** No specific recommendations. If in doubt, get medical attention promptly.

### 5. Fire-fighting measures

#### Extinguishing media

**Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.

#### Specific hazards arising from the hazardous product

**Specific hazards** No unusual fire or explosion hazards noted.

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**Hazardous combustion products** Oxides of carbon.

### Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

### Environmental precautions

**Environmental precautions** Avoid release to the environment.

### Methods and material for containment and cleaning up

**Methods for cleaning up** Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### Reference to other sections

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions** Do not use in confined spaces without adequate ventilation and/or respirator.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Store in tightly closed original container in a dry, cool and well-ventilated place. Keep away from oxidizing materials, heat and flames.

**Storage class** Chemical storage.

### Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure controls/Personal protection

### Control parameters

### Occupational exposure limits

#### VINYL TOLUENE

Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 242 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH 100 ppm 483 mg/m<sup>3</sup>

A4

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

### Exposure controls

#### Protective equipment



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<b>Appropriate engineering controls</b>	Provide adequate ventilation. Avoid inhalation of vapours. Observe any occupational exposure limits for the product or ingredients.
<b>Eye/face protection</b>	The following protection should be worn: Chemical splash goggles.
<b>Hand protection</b>	It is recommended that chemical-resistant, impervious gloves are worn.
<b>Other skin and body protection</b>	Wear appropriate clothing to prevent any possibility of skin contact.
<b>Hygiene measures</b>	DO NOT SMOKE IN WORK AREA! Wash at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes contaminated. Promptly remove any clothing that becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.
<b>Respiratory protection</b>	No specific recommendations.
<b>Environmental exposure controls</b>	Keep container tightly sealed when not in use.

### controls

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

<b>Appearance</b>	Liquid
<b>Colour</b>	Beige.
<b>Odour</b>	Aromatic.
<b>Odour threshold</b>	Not determined.
<b>pH</b>	Not applicable.
<b>Melting point</b>	Not determined.
<b>Initial boiling point and range</b>	>165°C @
<b>Flash point</b>	53°C
<b>Evaporation rate</b>	Not determined.
<b>Evaporation factor</b>	Not determined.
<b>Flammability (solid, gas)</b>	Not determined.
<b>Upper/lower flammability or explosive limits</b>	Not determined.
<b>Other flammability</b>	Not determined.
<b>Vapour pressure</b>	6 hPa @ 20°C
<b>Vapour density</b>	Not determined.
<b>Relative density</b>	1.65 - 1.75 @ 20°C
<b>Bulk density</b>	Not applicable.
<b>Solubility(ies)</b>	Insoluble in water
<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	Not determined.
<b>Viscosity</b>	> 60 S ISO2431

## FR5 MAX | Part A (Resin)

<b>Explosive properties</b>	No information available.
<b>Oxidising properties</b>	Does not meet the criteria for classification as oxidizing.

### 10. Stability and reactivity

<b>Reactivity</b>	The following materials may react with the product: Organic peroxides/hydroperoxides.
<b>Stability</b>	Stable at normal ambient temperatures.
<b>Possibility of hazardous reactions</b>	Does not decompose when used and stored as recommended.
<b>Conditions to avoid</b>	Avoid excessive heat for prolonged periods of time.
<b>Materials to avoid</b>	Organic peroxides/hydroperoxides.
<b>Hazardous decomposition products</b>	Oxides of carbon.

### 11. Toxicological information

#### Information on toxicological effects

#### Acute toxicity - inhalation

**ATE inhalation (vapours mg/l)** 159.52

#### Skin sensitization

**Skin sensitization** Sensitising.

<b>Inhalation</b>	Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	May cause sensitization by skin contact. May cause irritation.
<b>Eye contact</b>	Irritating to eyes.
<b>Acute and chronic health hazards</b>	Irritating to eyes. May cause sensitization by skin contact.
<b>Route of exposure</b>	Skin and/or eye contact.
<b>Medical symptoms</b>	Irritation of eyes and mucous membranes. Skin irritation.
<b>Medical considerations</b>	Skin disorders and allergies.

### 12. Ecological information

#### Bioaccumulative potential

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

#### Mobility in soil

**Mobility** Not applicable.

#### Other adverse effects

## FR5 MAX | Part A (Resin)

**Other adverse effects** Not applicable.

### 13. Disposal considerations

#### Waste treatment methods

**General information** Dispose of waste product or used containers in accordance with local regulations

**Disposal methods** Dispose of waste via a licensed waste disposal contractor.

### 14. Transport information

#### UN number

**UN No. (TDG)** 1866

**UN No. (IMDG)** 1866

**UN No. (ICAO)** 1866

**UN No. (DOT)** UN1866

#### UN proper shipping name

**Proper shipping name (TDG)** RESIN SOLUTION

**Proper shipping name (IMDG)** RESIN SOLUTION

**Proper shipping name (ICAO)** RESIN SOLUTION

**Proper shipping name (DOT)** RESIN SOLUTION

#### Transport hazard class(es)

**DOT class** 3

**DOT hazard label** 3

**TDG class** 3

**TDG label(s)** 3

**IMDG class** 3

**ICAO class/division** 3

#### Transport labels



#### DOT transport label



#### Packing group

**TDG packing group** III

**IMDG packing group** III

**ICAO packing group** III

**DOT packing group** III

#### Environmental hazards

## FR5 MAX | Part A (Resin)

### Environmentally hazardous substance/marine pollutant

No.

### Special precautions for user

EmS F-E, S-E

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

### 15. Regulatory information

Guidance Workplace Exposure Limits EH40.

#### Inventories

##### Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA All the ingredients are listed or exempt.

### 16. Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	14/03/2019
Version number	2.000
Supersedes date	23/03/2016
SDS number	20343
Hazard statements in full	H226 Flammable liquid and vapour. H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

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 process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.

**FASTENING PRODUCTS**

## SAFETY DATA SHEET

### FR5 MAX | Part B (Hardener)

According to WHMIS 2015, in compliance with the Hazardous Product Act (HPA, as amended) and the requirements of the Hazardous Product Regulations (HPR)

#### 1. Identification

##### Product identifier

**Product name** FR5 MAX | Part B

##### Recommended use of the chemical and restrictions on use

**Restriction on use** Catalyst.

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

**Supplier** UCAN Fastening Products  
155 Champagne Drive, Unit 10  
Toronto, Ontario, M3J 2C6  
Tel.: 416-631-9400 | Fax: 416-631-9426 | Email: sales@ucanfast.com  
Toll Free: CAD 1-800-268-1248 | USA 1-800-461-8226

**Web** www.ucanfast.com

**Contact person** Balwant K. Arjune | 416-631-9400 Ex. 252

##### Emergency telephone number

**Emergency telephone** CHEMTRAC 800-424-9300 (24 hr. Emergency)

#### 2. Hazard identification

##### Classification of the substance or mixture

**Physical hazards** Not Classified

**Health hazards** Eye Irrit. 2A - H319 Skin Sens. 1 - H317

**Human health** May cause skin disorders if contact is repeated or prolonged. May irritate eyes and skin.

**Environmental** The product contains a substance which is very toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**Physicochemical** Not considered to be a significant hazard due to the small quantities used.

##### Label elements

##### Pictogram



**Signal word** Warning



**FR5 MAX | Part B**

<b>Hazard statements</b>	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.
<b>Precautionary statements</b>	P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. 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. P333+P313 If skin irritation or rash occurs: Get medical advice/ attention. P501 Dispose of contents/ container in accordance with national regulations. P273 Avoid release to the environment.
<b>Contains</b>	BENZOYL PEROXIDE

**3. Composition/information on ingredients****Mixtures**

<b>GLYCERINE</b>	<b>20-50%</b>
CAS number: 56-81-5	
<b>BENZOYL PEROXIDE</b>	<b>10-20%</b>
CAS number: 94-36-0	
<b>BENZOIC ACID,NONYL ESTER,BRANCHED AND LINEAR</b>	<b>1-5%</b>
CAS number: 670241-72-2	
<b>ZINC DISTEARATE</b>	<b>1-5%</b>
CAS number: 557-05-1	

**4. First-aid measures****Description of first aid measures**

<b>Inhalation</b>	Move affected person to fresh air at once. Get medical attention if any discomfort continues.
<b>Ingestion</b>	Never give anything by mouth to an unconscious person. Do not induce vomiting. Rinse mouth thoroughly with water. Get medical attention if any discomfort continues.
<b>Skin contact</b>	Remove affected person from source of contamination. Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical attention if any discomfort continues.
<b>Eye contact</b>	Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing. Show this Safety Data Sheet to the medical personnel.

**Most important symptoms and effects, both acute and delayed**

<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Causes skin irritation.
<b>Eye contact</b>	Irritation of eyes and mucous membranes.

**Indication of any immediate medical attention and special treatment needed**

<b>Notes for the doctor</b>	No specific recommendations. If in doubt, get medical attention promptly.
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**5. Fire-fighting measures****Extinguishing media**

## FR5 MAX | Part B

**Suitable extinguishing media** Extinguish with foam, carbon dioxide or dry powder.

### Specific hazards arising from the hazardous product

**Specific hazards** No specific precautions due to the small quantities handled.

**Hazardous combustion products** Oxides of carbon.

### Advice for firefighters

**Protective actions during firefighting** Avoid breathing fire gases or vapours.

**Special protective equipment for firefighters** Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

## 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**Personal precautions** Wear protective clothing as described in Section 8 of this safety data sheet.

### Environmental precautions

**Environmental precautions** Avoid release to the environment.

### Methods and material for containment and cleaning up

**Methods for cleaning up** Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

### Reference to other sections

**Reference to other sections** Wear protective clothing as described in Section 8 of this safety data sheet. For waste disposal, see Section 13.

## 7. Handling and storage

### Precautions for safe handling

**Usage precautions** Keep away from heat, sparks and open flame.

**Advice on general occupational hygiene** Do not eat, drink or smoke when using this product. No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products.

### Conditions for safe storage, including any incompatibilities

**Storage precautions** Keep away from flammable and combustible materials. Store in closed original container at temperatures between 5°C and 25°C.

**Storage class** Chemical storage.

### Specific end use(s)

**Specific end use(s)** The identified uses for this product are detailed in Section 1.

## 8. Exposure controls/Personal protection

### Control parameters

### Occupational exposure limits

#### GLYCERINE

Long-term exposure limit (8-hour TWA): ACGIH 10 mg/m<sup>3</sup>

Short-term exposure limit (15-minute): ACGIH

#### BENZOYL PEROXIDE

## FR5 MAX | Part B

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m<sup>3</sup>

A4

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

### Exposure controls

#### Protective equipment



#### Appropriate engineering

Provide adequate ventilation.

#### controls

##### Eye/face protection

The following protection should be worn: Chemical splash goggles.

##### Hand protection

Wear protective gloves made of the following material: Nitrile rubber.

##### Other skin and body

Wear appropriate clothing to prevent any possibility of skin contact.

##### protection

##### Hygiene measures

Wash at the end of each work shift and before eating, smoking and using the toilet. **DO NOT SMOKE IN WORK AREA!**

##### Respiratory protection

No specific recommendations.

## 9. Physical and chemical properties

### Information on basic physical and chemical properties

Appearance	Liquid
Colour	Black.
Odour	Characteristic.
Odour threshold	Not determined.
pH	5 - 6
Melting point	Not applicable.
Initial boiling point and range	Not applicable.
Flash point	Not applicable.
Evaporation rate	Not determined.
Evaporation factor	Not determined.
Flammability (solid, gas)	Not determined.
Upper/lower flammability or explosive limits	Not determined.
Other flammability	Not determined.
Vapour pressure	Not determined.
Vapour density	Not determined.
Relative density	1.5 - 1.6
Bulk density	Not applicable.
Solubility(ies)	Not determined.

**FR5 MAX | Part B**

<b>Partition coefficient</b>	Not determined.
<b>Auto-ignition temperature</b>	Not determined.
<b>Decomposition Temperature</b>	>50°C
<b>Viscosity</b>	> 60 S ISO2431
<b>Explosive properties</b>	No information available.
<b>Oxidising properties</b>	Not determined.

**10. Stability and reactivity**

<b>Reactivity</b>	The following materials may react with the product: Acids. Alkalis. Amines. Strong reducing agents.
<b>Stability</b>	Stable at normal ambient temperatures and when used as recommended. Will decompose at temperatures exceeding 50°C.
<b>Possibility of hazardous reactions</b>	Will not polymerize.
<b>Conditions to avoid</b>	Avoid contact with strong reducing agents. Avoid heat. Avoid contact with acids and alkalis.

**Materials to avoid** Strong reducing agents. Acids, non-oxidising. Acids - organic. Alkalis - inorganic. Alkalis - organic. Amines.  
Oxides of carbon.

**Hazardous decomposition products****11. Toxicological information****Information on toxicological effects****Skin sensitization**

**Skin sensitization** Sensitising.

<b>Inhalation</b>	No specific health hazards known.
<b>Ingestion</b>	May cause discomfort if swallowed.
<b>Skin contact</b>	Irritating to skin. May cause sensitization by skin contact.
<b>Eye contact</b>	Irritation of eyes and mucous membranes.
<b>Route of exposure</b>	Skin and/or eye contact.
<b>Medical symptoms</b>	Skin irritation. Irritation of eyes and mucous membranes.
<b>Medical considerations</b>	No information available.

**12. Ecological information****Persistence and degradability**

**Persistence and degradability** There are no data on the degradability of this product.

**Bioaccumulative potential**

**Bioaccumulative potential** No data available on bioaccumulation.

**Partition coefficient** Not determined.

## FR5 MAX | Part B

**Mobility in soil**

**Mobility** Mobile. The product is partly miscible with water and may spread in the aquatic environment.

**13. Disposal considerations****Waste treatment methods**

**General information** Dispose of waste product or used containers in accordance with local regulations

**Disposal methods** Dispose of waste via a licensed waste disposal contractor.

**14. Transport information****UN number**

**UN No. (TDG)** 3082

**UN No. (IMDG)** 3082

**UN No. (ICAO)** 3082

**UN No. (DOT)** UN3082

**UN proper shipping name**

**Proper shipping name (TDG)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZOYL PEROXIDE, BENZOIC ACID, NONYL ESTER, BRANCHED AND LINEAR)

**Proper shipping name (IMDG)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZOYL PEROXIDE, BENZOIC ACID, NONYL ESTER, BRANCHED AND LINEAR)

**Proper shipping name (ICAO)** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS BENZOYL PEROXIDE, BENZOIC ACID, NONYL ESTER, BRANCHED AND LINEAR)

**Proper shipping name (DOT)** ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS BENZOYL PEROXIDE, BENZOIC ACID, NONYL ESTER, BRANCHED AND LINEAR)

**Transport hazard class(es)**

**DOT class** 9

**DOT hazard label** 9

**TDG class** 9

**TDG label(s)** 9

**IMDG class** 9

**ICAO class/division** 9

**Transport labels****DOT transport label****Packing group**

**TDG packing group** III

## FR5 MAX | Part B

IMDG packing group	III
ICAO packing group	III
DOT packing group	III

### Environmental hazards

Environmentally hazardous substance/marine pollutant



### Special precautions for user

EmS F-A, S-F

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not applicable.

## 15. Regulatory information

### Inventories

#### Canada - DSL/NDSL

All the ingredients are listed or exempt.

US - TSCA All the ingredients are listed or exempt.

## 16. Other information

Revision comments	NOTE: Lines within the margin indicate significant changes from the previous revision.
Revision date	14/03/2019
Version number	2.002
Supersedes date	23/03/2016
SDS number	20483
Hazard statements in full	H317 May cause an allergic skin reaction. H319 Causes serious eye irritation.

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 process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.