FLO - ROK CRACKFAST (SDS)

CRACKFAST SEAL (PART A AND B) PAGE 2 TO 20

CRACKFAST RESIN (PART A AND B) PAGE 21 TO 47



SAFETY DATA SHEET FLO-ROK CRACKFAST SEAL | PART A

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name CRACKFAST SEAL | PART A

Recommended use of the chemical and restrictions on use

Application 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(s) identification

Classification of the substance or mixture

Physical hazards Flam. Liq. 3 - H226

Health hazards Not Classified

Label elements

Pictogram



Signal word Warning

Hazard statements H226 Flammable liquid and vapor.

FLO-ROK CRACKFAST SEAL | PART A

Precautionary statements P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.

P264 Wash contaminated skin thoroughly after handling.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P302+P352 If on skin: Wash with plenty of water.

P332+P313 If skin irritation occurs: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse.

P370+P378 In case of fire: Use foam, carbon dioxide, dry powder or water fog to extinguish.

P403+P235 Store in a well-ventilated place. Keep cool.

P501 Dispose of contents/ container in accordance with national regulations.

Labeling notesNot classified for health hazards.: On basis of test data.

OECD Test No. 439

3. Composition/information on ingredients

Mixtures

VINYL TOLUENE 10-20%

CAS number: 25013-15-4

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air at once.

Ingestion 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.

Skin Contact Remove contaminated clothing. Wash skin thoroughly with soap and water. Get medical

attention if any discomfort continues.

Eye contact Rinse immediately with plenty of water. Show this Safety Data Sheet to the medical

personnel.

Most important symptoms and effects, both acute and delayed

Inhalation May cause respiratory irritation.

Ingestion May cause discomfort if swallowed.

Skin contact May cause skin irritation/eczema.

Eye contact May irritate eyes.

Indication of immediate medical attention and special treatment needed

Notes for the doctorNo 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.

Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion

products

Oxides of carbon.

Advice for firefighters

FLO-ROK CRACKFAST SEAL | PART A

Protective actions during

firefighting

Avoid breathing fire gases or vapors.

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 No smoking, sparks, flames or other sources of ignition near spillage.

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 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 uses(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): OSHA 100 ppm 480 mg/m³ Long-term exposure limit (8-hour TWA): ACGIH 50 ppm 242 mg/m³ Short-term exposure limit (15-minute): ACGIH 100 ppm 483 mg/m³

A4

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

Exposure controls

Protective equipment





Appropriate engineering controls

Provide adequate ventilation. Avoid inhalation of vapors. Observe any occupational exposure limits for the product or ingredients.

Eye/face protection The following protection should be worn: Chemical splash goggles.

FLO-ROK CRACKFAST SEAL | PART A

Hand protection It is recommended that chemical-resistant, impervious gloves are worn.

Other skin and body

protection

Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures 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.

Respiratory protection No specific recommendations.

Environmental exposure

controls

Keep container tightly sealed when not in use.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Liquid

Color Beige.

Odor Aromatic.

Odor threshold Not determined.

pH Not applicable.

Melting point Not determined.

Initial boiling point and range >165°C @

Flash point 53°C

Evaporation rate Not determined.

Evaporation factor Not determined.

Flammability (solid, gas) Not determined.

Upper/lower flammability or

explosive limits

Not determined.

Other flammabilityNot determined.Vapor pressure6 hPa @ 20°CVapor densityNot determined.

Relative density 1.65 - 1.75 @ 20°C

Bulk density Not applicable.

Solubility(ies) Insoluble in water

Partition coefficient Not determined.

Auto-ignition temperature Not determined.

Decomposition Temperature Not determined.

Viscosity > 60 S ISO2431

Explosive properties No information available.

Oxidizing properties Does not meet the criteria for classification as oxidizing.

FLO-ROK CRACKFAST SEAL | PART A

10. Stability and reactivity

Reactivity The following materials may react with the product: Organic peroxides/hydroperoxides.

Stability Stable at normal ambient temperatures.

Possibility of hazardous

reactions

Does not decompose when used and stored as recommended.

Conditions to avoid Avoid excessive heat for prolonged periods of time.

Materials to avoid Organic peroxides/hydroperoxides.

Hazardous decomposition

products

Oxides of carbon.

11. Toxicological information

Information on toxicological effects

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 79.18

Skin corrosion/irritation

Skin corrosion/irritation Not irritating. OECD Test No. 439

Serious eye damage/irritation

Serious eye damage/irritation Not irritating. OECD Test No. 439

Inhalation Gas or vapor in high concentrations may irritate the respiratory system.

Ingestion May cause discomfort if swallowed.

Skin Contact May cause skin irritation.

Eye contact May irritate eyes.

Toxicological information on ingredients.

VINYL TOLUENE

Acute toxicity - oral

Acute toxicity oral (LD₅o

2,255.0

mg/kg)

Species Rat

ATE oral (mg/kg) 2,255.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 4,500.0

mg/kg)

Species Rat

ATE dermal (mg/kg) 4,500.0

Acute toxicity - inhalation

ATE inhalation (vapours

mg/l)

11.0

FLO-ROK CRACKFAST SEAL | PART A

Carcinogenicity

IARC Group 3 Not classifiable as to its carcinogenicity to humans.

12. Ecological information

Ecological information on ingredients.

VINYL TOLUENE

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 23.4 mg/l, Pimephales promelas (Fat-head Minnow)

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: 1.3 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 72 hours: 2.6 mg/l, Selenastrum capricornutum

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

VINYL TOLUENE

Partition coefficient log Pow: 3.36

Mobility in soil

Mobility Not applicable.

Other adverse effects

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

FLO-ROK CRACKFAST SEAL | PART A

Transport hazard class(es)

DOT hazard class 3

DOT hazard label 3

TDG class 3

TDG label(s) 3

IMDG Class 3

ICAO class/division 3

Transport labels



DOT transport labels



Packing group

TDG Packing Group

IMDG packing group

ICAO packing group III

DOT packing group

Environmental hazards

Environmentally Hazardous Substance

No.

Special precautions for user

EmS F-E, S-E

DOT reportable quantity RQ: Hydroquinone (1223720.6001 lbs)

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

FLO-ROK CRACKFAST SEAL | PART A

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

State Regulations Comments Some of the ingredients are listed or exempt.

California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed or exempt:

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

Inventories

Canada - DSL/NDSL

The following ingredients are listed or exempt:

US - TSCA All the ingredients are listed or exempt.

FLO-ROK CRACKFAST SEAL | PART A

16. Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 14/03/2019

Version number 2.001

Supersedes date 23/03/2016

SDS No. 20848

Hazard statements in full H226 Flammable liquid and vapor.

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.



SAFETY DATA SHEET FLO-ROK CRACKFAST SEAL | PART B

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name CRACKFAST SEAL | PART B

Recommended use of the chemical and restrictions on use

Application 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(s) 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.

EnvironmentalThe 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

Hazard statements H317 May cause an allergic skin reaction.

H319 Causes serious eye irritation.

FLO-ROK CRACKFAST SEAL | PART B

Precautionary statements P280 Wear protective gloves/ protective clothing/ eye 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.

P264 Wash skin thoroughly after handling. P273 Avoid release to the environment.

P337+P313 If eye irritation persists: Get medical advice/ attention. P362+P364 Take off contaminated clothing and wash it before reuse.

P411 Store at temperatures not exceeding 25°C /77°F.

Contains BENZOYL PEROXIDE

3. Composition/information on ingredients

Mixtures

GLYCERINE 20-50%

CAS number: 56-81-5

BENZOYL PEROXIDE 10-15%

CAS number: 94-36-0

BENZOIC ACID, NONYL ESTER, BRANCHED AND LINEAR 1-5%

CAS number: 670241-72-2

ZINC DISTEARATE 1-5%

CAS number: 557-05-1

CARBON BLACK <0.5%

CAS number: 1333-86-4

4. First-aid measures

Description of first aid measures

Inhalation Move affected person to fresh air at once. Get medical attention if any discomfort continues.

Ingestion 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.

Skin Contact Remove affected person from source of contamination. Remove contaminated clothing. Wash

skin thoroughly with soap and water. Get medical attention if any discomfort continues.

Eye contact 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

Ingestion May cause discomfort if swallowed.

Skin contact Causes skin irritation.

Eye contact Irritation of eyes and mucous membranes.

FLO-ROK CRACKFAST SEAL | PART B

Indication of 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.

Special hazards arising from the substance or mixture

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 vapors.

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 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

Do not eat, drink or smoke when using this product. No specific hygiene procedures

occupational hygiene recommended but good personal hygiene practice

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 44°F and 77°F.

Storage class Chemical storage.

Specific end uses(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

FLO-ROK CRACKFAST SEAL | PART B

GLYCERINE

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³ respirable fraction Long-term exposure limit (8-hour TWA): OSHA 15 mg/m³ total dust

BENZOYL PEROXIDE

Long-term exposure limit (8-hour TWA): ACGIH 5 mg/m³

A4

Long-term exposure limit (8-hour TWA): OSHA 5 mg/m³

CARBON BLACK

Long-term exposure limit (8-hour TWA): OSHA 3.5 mg/m3

Long-term exposure limit (8-hour TWA): ACGIH 3 mg/m³ inhalable fraction

A3

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

A4 = Not Classifiable as a Human Carcinogen.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

Exposure controls

Protective equipment







Appropriate engineering

controls

Provide adequate ventilation.

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

protection

Wear appropriate clothing to prevent any possibility of skin contact.

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

Color Black.

Odor Characteristic.

Odor 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.

FLO-ROK CRACKFAST SEAL | PART B

Upper/lower flammability or

explosive limits

Not determined.

Other flammability Not determined.

Vapor pressure Not determined.

Vapor density Not determined.

Relative density 1.5 - 1.6

Bulk density

Solubility(ies)

Not determined.

Partition coefficient

Not determined.

Auto-ignition temperature Not determined.

Decomposition Temperature >50°C

Viscosity > 60 S ISO2431

Explosive properties No information available.

Oxidizing properties Not determined.

10. Stability and reactivity

Reactivity The following materials may react with the product: Acids. Alkalis. Amines. Strong reducing

agents.

Stable at normal ambient temperatures and when used as recommended. Will decompose at

temperatures exceeding 50°C.

Possibility of hazardous

reactions

Will not polymerize.

Conditions to avoid Avoid contact with strong reducing agents. Avoid heat. Avoid contact with acids and alkalis.

Materials to avoid Strong reducing agents. Acids, non-oxidizing. Acids - organic. Alkalis - inorganic. Alkalis -

organic. Amines.

Hazardous decomposition

products

Oxides of carbon.

11. Toxicological information

Information on toxicological effects

Skin sensitization

Skin sensitization Sensitizing.

Inhalation No specific health hazards known.

Ingestion May cause discomfort if swallowed.

Skin Contact Irritating to skin. May cause sensitisation by skin contact.

Eye contact Irritation of eyes and mucous membranes.

Route of exposure Skin and/or eye contact.

FLO-ROK CRACKFAST SEAL | PART B

Medical Symptoms Skin irritation. Irritation of eyes and mucous membranes.

Medical considerations No information available.

12. Ecological information

Persistence and degradability

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

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not determined.

Mobility in soil

Mobilety 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 hazard class 9

DOT hazard label 9

TDG class 9

TDG label(s) 9

IMDG Class 9

ICAO class/division 9

FLO-ROK CRACKFAST SEAL | PART B

Transport labels



DOT transport labels



Packing group

TDG Packing Group III
IMDG packing group III
ICAO packing group III

Environmental hazards

DOT packing group

Environmentally Hazardous Substance

Ш



Special precautions for user

EmS F-A, S-F

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

GLYCERINE

Not listed.

20-50%

ZINC DISTEARATE

Not listed.

1-5%

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

GLYCERINE

Not listed.

20-50%

ZINC DISTEARATE

Not listed.

1-5%

FLO-ROK CRACKFAST SEAL | PART B

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

The following ingredients are listed or exempt:

ZINC DISTEARATE

1.0 %

1-5%

BENZOYL PEROXIDE

1.0 %

10-15%

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

GLYCERINE

Not listed.

20-50%

ZINC DISTEARATE

Not listed.

1-5%

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

The following ingredients are listed or exempt:

BENZOYL PEROXIDE

Threshold Quantity: 7500 lbs

10-15%

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

The following ingredients are listed or exempt:

GI YCFRINF

Not listed.

ZINC DISTEARATE

Not listed.

California Air Toxics "Hot Spots" (A-I)

The following ingredients are listed or exempt:

BENZOYL PEROXIDE

Present.

10-15%

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

FLO-ROK CRACKFAST SEAL | PART B

BENZOYL PEROXIDE

Present.

10-15%

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

GLYCERINE

Present.

20-50%

ZINC DISTEARATE

Present.

1-5%

BENZOYL PEROXIDE

Present.

10-15%

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

GLYCERINE

Present.

20-50%

ZINC DISTEARATE

Present.

1-5%

BENZOYL PEROXIDE

Present.

10-15%

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

GLYCERINE

Present.

20-50%

ZINC DISTEARATE

Present.

1-5%

BENZOYL PEROXIDE

Present.

10-15%

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

GLYCERINE

Present.

20-50%

ZINC DISTEARATE

Present.

1-5%

FLO-ROK CRACKFAST SEAL | PART B

BENZOYL PEROXIDE

Present. 10-15%

Inventories

Canada - DSL/NDSL

All the ingredients are listed or exempt.

WATER

DSL

5-10%

GLYCERINE

DSL

20-50%

ZINC DISTEARATE

DSL

1-5%

US-TSCA

All the ingredients are listed or exempt.

WATER

Present.

5-10%

GLYCERINE

Present.

20-50%

BENZOIC ACID, NONYL ESTER, BRANCHED AND LINEAR

Present.

1-5%

ZINC DISTEARATE

Present.

1-5%

BENZOYL PEROXIDE

Present.

10-15%

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 No. 20488

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.



SAFETY DATA SHEET FLO-ROK CRACKFAST RESIN | PART A

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name CRACKFAST INJECTION | PART A

Recommended use of the chemical and restrictions on use

Application Two component epoxy based adhesive. 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(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Skin Irrit. 2 - H315 Eye Dam. 1 - H318 Skin Sens. 1 - H317

Label elements

Pictogram





Signal word Danger

Hazard statements H315 Causes skin irritation.

H317 May cause an allergic skin reaction. H318 Causes serious eye damage.

FLO-ROK CRACKFAST RESIN | PART A

Precautionary statements P261 Avoid breathing vapor/ spray.

P264 Wash contaminated skin thoroughly after handling.

P272 Contaminated work clothing must not be allowed out of the workplace. 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. P310 Immediately call a poison center/ doctor.

P321 Specific treatment (see medical advice on this label).
P332+P313 If skin irritation occurs: Get medical advice/ attention.
P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.
P362+P364 Take off contaminated clothing and wash it before reuse.
P501 Dispose of contents/ container in accordance with national regulations.

Contains EPOXY RESIN (Number average MW <= 700), EPOXY PHENOL FORMALDEHYDE RESIN,

BUTANEDIOLDIGLYCIDYL ETHER, REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH

2-CHLOROMETHYL)OXIRANE(1:2)

3. Composition/information on ingredients

Mixtures

EPOXY RESIN (Number average MW <= 700)

50-80%

CAS number: 25068-38-6

EPOXY PHENOL FORMALDEHYDE RESIN

20-50%

CAS number: 9003-36-5

BUTANEDIOLDIGLYCIDYL ETHER

10-20%

CAS number: 2425-79-8

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

1-5%

CAS number: 933999-84-9

CAS 28064-14-4 = CAS 9003-36-5 (EU) CAS 933999-84-9 = CAS 16096-31-4 (RoW)

4. First-aid measures

Description of first aid measures

Inhalation Remove affected person from source of contamination. Get medical attention if any discomfort

continues.

Ingestion DO NOT induce vomiting. Get medical attention immediately.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water.

Eye contact 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

Inhalation May cause respiratory irritation.

Ingestion May cause stomach pain or vomiting.

FLO-ROK CRACKFAST RESIN | PART A

Skin contact Prolonged or repeated contact with skin may cause irritation, redness and dermatitis. May

cause sensitisation by skin contact.

Eye contact Irritating to eyes.

Indication of 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 alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing DO NOT use water if avoidable.

media

Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion Oxides of carbon. Oxides of nitrogen.

products

Advice for firefighters

Protective actions during

firefighting

No specific firefighting precautions known.

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 For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section

13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid contact with eyes. Avoid contact with skin.

Advice on general 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

occupational hygiene with chemical products.

Conditions for safe storage, including any incompatibilities

Storage precautions Keep away from food, drink and animal feeding stuffs. Keep container tightly sealed when not

in use.

FLO-ROK CRACKFAST RESIN | PART A

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

8. Exposure controls/Personal protection

Exposure controls

Protective equipment







Appropriate engineering

controls

No specific ventilation requirements.

Eye/face protection Wear eye protection.

Hand protection

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

Hygiene measures

Provide eyewash station. 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.

Not relevant.

Respiratory protection

Environmental exposure

controls

Keep container tightly sealed when not in use. Residues and empty containers should be

taken care of as hazardous waste according to local and national provisions.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Liquid

Color Yellow-white. Odor Characteristic.

pН Not applicable.

Melting point Not applicable.

>35°C @ 760 mm Hg Initial boiling point and range

>100°C Closed cup. Literature Flash point

Evaporation rate No information available.

Evaporation factor Not applicable.

Not applicable. Flammability (solid, gas)

Upper/lower flammability or

explosive limits

Odor threshold

Not applicable.

Not determined.

Other flammability Not available. Vapor pressure <500 Pa @ °C

Vapor density No information available.

Relative density 1.1 - 1.2

Bulk density Not applicable.

Solubility(ies) Insoluble in water

FLO-ROK CRACKFAST RESIN | PART A

Partition coefficient Not determined.

Auto-ignition temperature Not determined.

Decomposition Temperature Not determined.

Viscosity 500 - 1000 mPa s @ 20°C

Explosive propertiesNo information available.

Explosive under the influence

of a flame

No

Oxidizing properties Does not meet the criteria for classification as oxidizing.

10. Stability and reactivity

Reactivity The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous

reactions

The following materials may react with the product: Acids. Amides. Amines. Phenols, cresols.

Conditions to avoid Avoid contact with acids and alkalis.

Materials to avoid Acids. Amines. Amides.

Hazardous decomposition

products

Oxides of carbon. Oxides of nitrogen.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 3,333.33

Acute toxicity - dermal

ATE dermal (mg/kg) 7,333.33

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 73.33

Skin sensitization

Skin sensitization Sensitizing.

General information Contains epoxy constituents. See information supplied by the manufacturer.

Inhalation No specific health hazards known.

Ingestion No harmful effects expected from quantities likely to be ingested by accident.

Skin Contact Irritating to skin. May cause sensitisation by skin contact.

Eye contact May cause severe eye irritation.

Acute and chronic health

hazards

Irritating to skin. Irritating to eyes.

Route of exposure Skin and/or eye contact.

FLO-ROK CRACKFAST RESIN | PART A

Medical Symptoms Skin irritation.

Medical considerations Skin disorders and allergies.

Toxicological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 11,400.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 1,200.0

mg/kg)

Species Rat

BUTANEDIOLDIGLYCIDYL ETHER

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 1,163.0

mg/kg)

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,150.0

mg/kg)

Species Rat

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

ATE inhalation (vapours 11.0

mg/l)

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 3,010.0

mg/kg)

Species Rat

12. Ecological information

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 2 mg/l, Oncorhynchus mykiss (Rainbow trout)

FLO-ROK CRACKFAST RESIN | PART A

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 1.8 mg/l, Daphnia magna

Acute toxicity - aquatic

EC₅₀, 72 hours: 11 mg/l, Freshwater algae

plants

EC₅o, 96 hours: 220 mg/l, Scenedesmus subspicatus

Chronic aquatic toxicity

Chronic toxicity - aquatic

NOEC, 21 days: 0.3 mg/l, Daphnia magna

invertebrates

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2) Acute

aquatic toxicity

Acute toxicity - fish

LC50, 96 hours: 30 mg/l, Oncorhynchus mykiss (Rainbow trout)

Persistence and degradability

Persistence and degradability The product is not biodegradable.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Biodegradation - 12% Degradation (%): 28 days

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

Biodegradation - 47% Degradation (%): 28 days

OECD 301D

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not determined.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Bio-Accumulative Potential May accumulate in soil and water systems. BCF: 100 - 3000,

Partition coefficient log Pow: 3.242 Estimated Value

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

Bio-Accumulative Potential BCF: < 100, Estimated Value

Partition coefficient log Pow: -0.272 Estimated Value

Mobility in soil

Mobility The product is insoluble in water and will spread on the water surface. The product is non

volatile. Semi-mobile.

Ecological information on ingredients.

EPOXY RESIN (Number average MW <= 700)

Mobility Semi-mobile.

FLO-ROK CRACKFAST RESIN | PART A

Adsorption/desorption

coefficient

Water - Koc: 1800 - 4400 @ 25°C Estimated Value

Henry's law constant

4.93E-05 Pa m3/mol @ 25°C

13. Disposal considerations

Waste treatment methods

Disposal methods Residues and empty containers should be taken care of as hazardous waste according to

local and national provisions. 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 EPOXY

RESIN (Number average MW <= 700), EPOXY PHENOL FORMALDEHYDE RESIN)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY

RESIN (Number average MW <= 700), EPOXY PHENOL FORMALDEHYDE RESIN)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CONTAINS EPOXY

RESIN (Number average MW <= 700), EPOXY PHENOL FORMALDEHYDE RESIN)

Proper shipping name (DOT) ENVIRONMENTALLY HAZARDOUS SUBSTANCES, LIQUID, N.O.S. (CONTAINS EPOXY

RESIN (Number average MW <= 700), EPOXY PHENOL FORMALDEHYDE RESIN)

Transport hazard class(es)

DOT hazard class 9

DOT hazard label 9

TDG class 9

TDG label(s) 9

IMDG Class 9

ICAO class/division 9

Transport labels



DOT transport labels



Packing group

TDG Packing Group

FLO-ROK CRACKFAST RESIN | PART A

IMDG packing group

ICAO packing group

DOT packing group III

Environmental hazards Environmentally

Hazardous Substance



Special precautions for user

EmS F-A, S-F

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78

and the IBC Code

15. Regulatory information

Guidance Workplace Exposure Limits EH40.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

None of the ingredients are listed or exempt.

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

FLO-ROK CRACKFAST RESIN | PART A

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

None of the ingredients are listed or exempt.

Massachusetts "Right To Know" List

None of the ingredients are listed or exempt.

Rhode Island "Right To Know" List

None of the ingredients are listed or exempt.

Minnesota "Right To Know" List

None of the ingredients are listed or exempt.

New Jersey "Right To Know" List

None of the ingredients are listed or exempt.

Pennsylvania "Right To Know" List

None of the ingredients are listed or exempt.

Inventories

Canada - DSL/NDSL

The following ingredients are listed or exempt:

EPOXY PHENOL FORMALDEHYDE RESIN

DSL

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

Domestic Substance List

EPOXY RESIN (Number average MW <= 700)

DSL

BUTANEDIOLDIGLYCIDYL ETHER

DSL

US - TSCA

All the ingredients are listed or exempt.

US - TSCA 12(b) Export Notification

The following ingredients are listed or exempt:

REACTION PRODUCTS OF HEXANE-1,6-DIOL WITH 2-CHLOROMETHYL)OXIRANE(1:2)

Present.

FLO-ROK CRACKFAST RESIN | PART A

16. Other information

Revision comments NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 14/03/2019

Version number 1.001

Supersedes date 23/03/2016

SDS No. 20444

Hazard statements in full H315 Causes skin irritation.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

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.



SAFETY DATA SHEET FLO-ROK CRACKFAST RESIN | PART B

According to Appendix D, OSHA Hazard Communication Standard 29 CFR §1910.1200

1. Identification

Product identifier

Product name CRACKFAST INJECTION | PART B

Recommended use of the chemical and restrictions on use

Application Two component epoxy based adhesive. Hardener.

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(s) identification

Classification of the substance or mixture

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Eye Dam. 1 - H318 Skin Sens.

1 - H317 Repr. 2 - H361 STOT RE 1 - H372

Human health Corrosive. Prolonged contact causes serious eye and tissue damage. Contains a substance/a

group of substances which may damage fertility and the unborn child.

Environmental The product contains a substance which may have hazardous effects on the environment.

Label elements

Pictogram







Signal word

Danger

FLO-ROK CRACKFAST RESIN | PART B

Hazard statements H302+H312 Harmful if swallowed or in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statements P260 Do not breathe vapor/ spray.

P273 Avoid release to the environment.

P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

P301+P330+P331 If swallowed: Rinse mouth. Do NOT induce vomiting.

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. P362+P364 Take off contaminated clothing and wash it before reuse.

P304+P340 If inhaled: Remove person to fresh air and keep comfortable for breathing.

P405 Store locked up.

P501 Dispose of contents/ container in accordance with national regulations.

Contains HYDROCARBONS, C-9 UNSATURATED, POLYMER WITH PHENOLS, 2-PIPERAZIN-1

YLETHYLAMINE, STYRENATED PHENOL, BENZYL ALCOHOL, 2,4,6-

TRIS(DIMETHYLAMINOMETHYL)PHENOL, 1,3-CYCLOHEXANEBIS(METHYLAMINE), SALICYLIC ACID, TRIETHYLENETETRAMINE, 3-AMINOPROPYLDIMETHYLAMINE

3. Composition/information on ingredients

Mixtures

HYDROCARBONS,C-9 UNSATURATED, POLYMER WITH	20-50%
--	--------

PHENOLS

CAS number: 71302-91-5

2-PIPERAZIN-1-YLETHYLAMINE 20-50%

CAS number: 140-31-8

STYRENATED PHENOL 10-20%

CAS number: 61788-44-1

BENZYL ALCOHOL 5-10%

CAS number: 100-51-6

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL 5-10%

CAS number: 90-72-2

1,3-CYCLOHEXANEBIS(METHYLAMINE) 1-5%

CAS number: 2579-20-6

SALICYLIC ACID 1-5%

CAS number: 69-72-7

FLO-ROK CRACKFAST RESIN | PART B

TRIETHYLENETETRAMINE >0.5 <1.0%

CAS number: 112-24-3

3-AMINOPROPYLDIMETHYLAMINE >0.5 <1.0%

CAS number: 109-55-7

BIS(ISOPROPYL)NAPHTHALENE >0.5 <1.0%

CAS number: 38640-62-9

CYCLOHEXANONE <0.5%

CAS number: 108-94-1

DIETHYLENETRIAMINE <0.5%

CAS number: 111-40-0

4. First-aid measures

Description of first aid measures

Inhalation Remove affected person from source of contamination. Get medical attention if any discomfort

continues.

Ingestion DO NOT induce vomiting. Get medical attention immediately.

Skin Contact Remove contaminated clothing immediately and wash skin with soap and water. Get medical

attention if any discomfort continues.

Eye contact 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

Inhalation Irritation of nose, throat and airway.

Ingestion May cause stomach pain or vomiting.

Skin contact Burning pain and severe corrosive skin damage. Blistering may occur. Chemical burns.

Eye contact May cause blurred vision and serious eye damage.

Indication of 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 alcohol-resistant foam, carbon dioxide or dry powder.

Unsuitable extinguishing

DO NOT use water if avoidable.

media

Special hazards arising from the substance or mixture

Specific hazards No unusual fire or explosion hazards noted.

Hazardous combustion

products

Oxides of carbon. Oxides of nitrogen.

FLO-ROK CRACKFAST RESIN | PART B

Advice for firefighters

Protective actions during

firefighting

No specific firefighting precautions known.

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 precautionsWear protective clothing as described in Section 8 of this safety data sheet.

Environmental precautions

Environmental precautions Collect and dispose of spillage as indicated in Section 13. Contain spillage with sand, earth or

other suitable non-combustible material. Avoid discharge into drains or watercourses or onto

the ground.

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 For personal protection, see Section 8. Collect and dispose of spillage as indicated in Section

13.

7. Handling and storage

Precautions for safe handling

Usage precautions Avoid contact with skin. Avoid contact with eyes. Do not empty into drains.

Advice on general Do not eat, drink or smoke when using this product. No specific hygiene procedures

occupational hygiene 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 food and drink. Keep container closed when not in use.

Specific end uses(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

CYCLOHEXANONE

Long-term exposure limit (8-hour TWA): OSHA 50 ppm 200 mg/m³

Long-term exposure limit (8-hour TWA): ACGIH 20 ppm Short-term exposure limit (15-minute): ACGIH 50 ppm

A3, Sk

DIETHYLENETRIAMINE

Long-term exposure limit (8-hour TWA): ACGIH 1 ppm 4.2 mg/m³

S۷

OSHA = Occupational Safety and Health Administration.

ACGIH = American Conference of Governmental Industrial Hygienists.

Sk = Danger of cutaneous absorption.

A3 = Confirmed Animal Carcinogen with Unknown Relevance to Humans.

Exposure controls

FLO-ROK CRACKFAST RESIN | PART B

Protective equipment







Appropriate engineering

controls

Provide adequate general and local exhaust ventilation. Observe any occupational exposure

limits for the product or ingredients.

Eye/face protection The following protection should be worn: Tight-fitting safety glasses. Contact lenses should

not be worn when working with this chemical.

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

Other skin and body

protection

Avoid contact with skin. Wear appropriate clothing to prevent repeated or prolonged skin

contact.

Hygiene measures Do not eat, drink or smoke when using this product. Wash at the end of each work shift and

before eating, smoking and using the toilet. Use engineering controls to reduce air

contamination to permissible exposure level.

Respiratory protection If ventilation is inadequate, suitable respiratory protection must be worn.

Environmental exposure

controls

Keep container tightly sealed when not in use. Residues and empty containers should be

taken care of as hazardous waste according to local and national provisions.

9. Physical and chemical properties

Information on basic physical and chemical properties

Appearance Liquid

Color Amber. to Brown.

Odor Characteristic. Amine.

Odor threshold Not determined.

pH Not applicable.

Melting point Not determined.

Initial boiling point and range Not determined.

Flash point >100°C Closed cup. Literature

Evaporation rate Not determined.

Evaporation factor Not determined.

Flammability (solid, gas) Not determined.

Upper/lower flammability or

explosive limits

Not determined.

Other flammability Not applicable.

Vapor pressure Not determined.

Vapor density Not determined.

Relative density ~ 1.00

Bulk density Not available.

Solubility(ies) Not determined.

Partition coefficient Not determined.

FLO-ROK CRACKFAST RESIN | PART B

Auto-ignition temperature Not determined.

Decomposition Temperature Not determined.

Viscosity ~500 mPa s @ 20°C

Explosive properties No information available.

Explosive under the influence

of a flame

Not considered to be explosive.

Oxidizing properties Does not meet the criteria for classification as oxidizing.

10. Stability and reactivity

Reactivity The following materials may react with the product: Acids. Epoxides. Oxidizing agents.

Peroxides.

Stability Stable at normal ambient temperatures and when used as recommended.

Possibility of hazardous

reactions

The following materials may react with the product: Acids. Epoxides. Oxidizing agents.

Peroxides.

Conditions to avoid Stable. However, may decompose if heated.

Materials to avoid Acids. Epoxides. Oxidizing agents. Peroxides.

Hazardous decomposition

products

Oxides of carbon. Oxides of nitrogen.

11. Toxicological information

Information on toxicological effects

Acute toxicity - oral

ATE oral (mg/kg) 623.38

Acute toxicity - dermal

ATE dermal (mg/kg) 1,215.59

Acute toxicity - inhalation

ATE inhalation (vapours mg/l) 137.17

Skin sensitization

Skin sensitization Sensitizing.

Reproductive toxicity

Reproductive toxicity - fertility Contains a substance/a group of substances which may damage fertility.

Inhalation Vapor may irritate respiratory system/lungs.

Ingestion May cause stomach pain or vomiting.

Skin Contact May cause sensitisation by skin contact. May cause serious chemical burns to the skin.

Eye contact Risk of serious damage to eyes. May cause chemical eye burns.

Acute and chronic health

hazards

May cause sensitisation by skin contact. Causes severe burns.

Route of exposure Skin and/or eye contact Inhalation

FLO-ROK CRACKFAST RESIN | PART B

Target Organs No specific target organs known.

Medical Symptoms Symptoms overexposure may include the following: Chemical burns.

Medical considerations Splash in eye requires examination by eye specialist.

Toxicological information on ingredients.

HYDROCARBONS, C-9 UNSATURATED, POLYMER WITH PHENOLS

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 1,200.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 10,000.0

mg/kg)

Species Rat

2-PIPERAZIN-1-YLETHYLAMINE

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 1,470.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD50 866.0

mg/kg)

Species Rabbit

ATE dermal (mg/kg) 300.0

STYRENATED PHENOL

Acute toxicity - oral

Acute toxicity oral (LD₅o

mg/kg)

2,000.0

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.0

mg/kg)

Species Rat

BENZYL ALCOHOL

Acute toxicity - oral

Acute toxicity oral (LD50

mg/kg)

1,040.0

Species Rabbit

FLO-ROK CRACKFAST RESIN | PART B

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.0

mg/kg)

Species Rabbit

Acute toxicity - inhalation

ATE inhalation (vapours 11.0

mg/l)

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 2,169.0

mg/kg)

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD50 1.0

mg/kg)

Species Rat

1,3-CYCLOHEXANEBIS(METHYLAMINE)

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 700.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 1,700.0

mg/kg)

Species Rabbit

SALICYLIC ACID

Acute toxicity - oral

Acute toxicity oral (LD₅₀ 891.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 2,000.0

mg/kg)

Species Rat

TRIETHYLENETETRAMINE

Acute toxicity - oral

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ATE oral (mg/kg) 500.0

Acute toxicity - dermal

ATE dermal (mg/kg) 1,100.0

3-AMINOPROPYLDIMETHYLAMINE

Acute toxicity - oral

Acute toxicity oral (LD50

1,600.0

mg/kg)

Species Rat

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 1,200.0

mg/kg)

Species Rat

BIS(ISOPROPYL)NAPHTHALENE

Acute toxicity - oral

Acute toxicity oral (LD50

4,130.0

mg/kg)

Species Rat

CYCLOHEXANONE

Acute toxicity - oral

Acute toxicity oral (LD50

1,890.0

mg/kg)

Species Rat

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ 3,160.0

mg/kg)

Species Rabbit

ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

ATE inhalation (vapours

11.0

mg/l)

Carcinogenicity

IARC carcinogenicity IARC Group 3 Not classifiable as to its carcinogenicity to humans.

DIETHYLENETRIAMINE

Acute toxicity - oral

ATE oral (mg/kg) 500.0

Acute toxicity - dermal

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ATE dermal (mg/kg) 1,100.0

Acute toxicity - inhalation

ATE inhalation (vapours

mg/l)

0.5

12. Ecological information

Ecological information on ingredients.

2-PIPERAZIN-1-YLETHYLAMINE

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 2190 mg/l, Pimephales promelas (Fat-head Minnow)

LC50, 96 hours: 368 mg/l, Poecilia reticulata (Guppy)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 32 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 48 hours: 494 mg/l, Selenastrum capricornutum

STYRENATED PHENOL

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 14.8 mg/l,

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 1-10 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 72 hours: 3.14 mg/l, Scenedesmus subspicatus

BENZYL ALCOHOL

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 10 mg/l, Lepomis macrochirus (Bluegill)

LC50, 96 hours: 645 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 400 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 3 hours: 79 mg/l, Scenedesmus subspicatus EC₅₀, 96 hours: 640 mg/l, Scenedesmus subspicatus

Acute toxicity -EC₅₀, 48 hours: 2100 mg/l, Activated sludge

microorganisms

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 180 - 240 mg/l, Oncorhynchus mykiss (Rainbow trout)

LC50, 96 hours: 175 mg/l, Cyprinus carpio (Common carp)

1,3-CYCLOHEXANEBIS(METHYLAMINE)

Acute aquatic toxicity

LC50, > 96 hours: 100 mg/l, Leuciscus idus (Golden orfe) Acute toxicity - fish

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Acute toxicity - aquatic

invertebrates

EC₅₀, 48 hours: 29 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅o, > 96 hours: 100 mg/l, Scenedesmus subspicatus

Acute toxicity - terrestrial EC₅₀, > 14 days: 1000 mg/kg, Eisenia Fetida (Earthworm)

SALICYLIC ACID

Acute aquatic toxicity

Acute toxicity - fish LC50, 48 hours: 90 mg/l, Leuciscus idus (Golden orfe)

Acute toxicity - microorganisms

EC₅o, > 3 hours: 3200 mg/l, Activated sludge

TRIETHYLENETETRAMINE

Acute aquatic toxicity

Acute toxicity - fish LC50, 96 hours: 330 mg/l, Pimephales promelas (Fat-head Minnow)

LC50, 96 hours: 570 mg/l, Poecilia reticulata (Guppy)

Acute toxicity - aquatic

invertebrates

EC₅o, 48 hours: 31 mg/l, Daphnia magna

Acute toxicity - aquatic

plants

EC₅₀, 72 hours: 20 mg/l, Selenastrum capricornutum

Acute toxicity - microorganisms

,: 800 mg/l, Activated sludge

Persistence and degradability

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

Bioaccumulative potential

Bio-Accumulative Potential No data available on bioaccumulation.

Partition coefficient Not determined.

Mobility in soil

Mobility Mobile. The product is miscible with water and may spread in water systems.

13. Disposal considerations

Waste treatment methods

General information Residues and empty containers should be taken care of as hazardous waste according to

local and national provisions.

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

14. Transport information

UN Number

UN No. (TDG) 2735

UN No. (IMDG) 2735

UN No. (ICAO) 2735

UN No. (DOT) UN2735

FLO-ROK CRACKFAST RESIN | PART B

UN proper shipping name

Proper shipping name (TDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 2-PIPERAZIN-1-YLETHYLAMINE, 1,3-

CYCLOHEXANEBIS(METHYLAMINE))

Proper shipping name (IMDG) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 2-PIPERAZIN-1-YLETHYLAMINE, 1,3-

CYCLOHEXANEBIS(METHYLAMINE))

Proper shipping name (ICAO) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 2-PIPERAZIN-1-YLETHYLAMINE, 1,3-

CYCLOHEXANEBIS(METHYLAMINE))

Proper shipping name (DOT) AMINES, LIQUID, CORROSIVE, N.O.S. (CONTAINS 2-PIPERAZIN-1-YLETHYLAMINE, 1,3-

CYCLOHEXANEBIS(METHYLAMINE))

Transport hazard class(es)

DOT hazard class 8

DOT hazard label 8

TDG class 8

TDG label(s) 8

IMDG Class 8

ICAO class/division 8

Transport labels



DOT transport labels



Packing group

TDG Packing Group

IMDG packing group

ICAO packing group

DOT packing group

Environmental hazards Environmentally

Hazardous Substance

No

Special precautions for user

IMDG Code segregation

18. Alkalis

group

EmS F-A, S-B

Transport in bulk according to Not applicable.

Annex II of MARPOL 73/78 and the IBC Code

15. Regulatory information

FLO-ROK CRACKFAST RESIN | PART B

Guidance Workplace Exposure Limits EH40.

US Federal Regulations

SARA Section 302 Extremely Hazardous Substances Tier II Threshold Planning Quantities

None of the ingredients are listed or exempt.

CERCLA/Superfund, Hazardous Substances/Reportable Quantities (EPA)

The following ingredients are listed or exempt:

CYCLOHEXANONE

Final CERCLA RQ: 5000(2270) pounds (Kilograms)

<0.5%

SARA Extremely Hazardous Substances EPCRA Reportable Quantities

None of the ingredients are listed or exempt.

SARA 313 Emission Reporting

None of the ingredients are listed or exempt.

CAA Accidental Release Prevention

None of the ingredients are listed or exempt.

FDA - Essential Chemical

None of the ingredients are listed or exempt.

FDA - Precursor Chemical

None of the ingredients are listed or exempt.

OSHA Highly Hazardous Chemicals

None of the ingredients are listed or exempt.

US State Regulations

California Proposition 65 Carcinogens and Reproductive Toxins

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-I)

None of the ingredients are listed or exempt.

California Air Toxics "Hot Spots" (A-II)

None of the ingredients are listed or exempt.

California Directors List of Hazardous Substances

The following ingredients are listed or exempt:

CYCLOHEXANONE

Present.

< 0.5%

DIETHYLENETRIAMINE

Present.

<0.5%

Massachusetts "Right To Know" List

The following ingredients are listed or exempt:

BENZYL ALCOHOL

Present.

5-10%

FLO-ROK CRACKFAST RESIN | PART B

CYCLOHEXANONE

Present.

<0.5%

3-AMINOPROPYLDIMETHYLAMINE Present.

>0.5 < 1.0%

TRIETHYLENETETRAMINE

Present.

>0.5 < 1.0%

2-PIPERAZIN-1-YLETHYLAMINE

Present.

20-50%

DIETHYLENETRIAMINE

Present.

<0.5%

Rhode Island "Right To Know" List

The following ingredients are listed or exempt:

CYCLOHEXANONE

Present.

<0.5%

DIETHYLENETRIAMINE

Present.

<0.5%

Minnesota "Right To Know" List

The following ingredients are listed or exempt:

BENZYL ALCOHOL

Present.

5-10%

CYCLOHEXANONE

Present.

<0.5%

DIETHYLENETRIAMINE

Present.

<0.5%

New Jersey "Right To Know" List

The following ingredients are listed or exempt:

CYCLOHEXANONE

Present.

<0.5%

3-AMINOPROPYLDIMETHYLAMINE Present.

>0.5 < 1.0%

TRIETHYLENETETRAMINE

Present.

>0.5 <1.0%

FLO-ROK CRACKFAST RESIN | PART B

2-PIPERAZIN-1-YLETHYLAMINE

Present. 20-50%

DIETHYLENETRIAMINE

Present.

<0.5%

Pennsylvania "Right To Know" List

The following ingredients are listed or exempt:

BENZYL ALCOHOL

Present.

5-10%

CYCLOHEXANONE

Present.

<0.5%

3-AMINOPROPYLDIMETHYLAMINE

Present.

>0.5 < 1.0%

TRIETHYLENETETRAMINE

Present.

>0.5 < 1.0%

2-PIPERAZIN-1-YLETHYLAMINE

Present.

20-50%

DIETHYLENETRIAMINE

Present.

<0.5%

Inventories

Canada - DSL/NDSL

The following ingredients are listed or exempt:

BENZYL ALCOHOL

DSL

2,4,6-TRIS(DIMETHYLAMINOMETHYL)PHENOL

DSL

3-AMINOPROPYLDIMETHYLAMINE

DSL

TRIETHYLENETETRAMINE

DSL

HYDROCARBONS, C-9 UNSATURATED, POLYMER WITH PHENOLS

NDSL

2-PIPERAZIN-1-YLETHYLAMINE

DSL

SALICYLIC ACID

DSL

BIS(ISOPROPYL)NAPHTHALENE

DSL

FLO-ROK CRACKFAST RESIN | PART B

1,3-CYCLOHEXANEBIS(METHYLAMINE)

DSL

STYRENATED PHENOL

DSL

DIETHYLENETRIAMINE

DSL

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 1.001

Supersedes date 23/03/2016

SDS No. 20369

Hazard statements in full H302 Harmful if swallowed.

H312 Harmful in contact with skin.

H314 Causes severe skin burns and eye damage.

H317 May cause an allergic skin reaction.

H318 Causes serious eye damage.

H361 Suspected of damaging fertility or the unborn child.

H372 Causes damage to organs through prolonged or repeated exposure.

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.