SAFETY DATA SHEET: Raptor® Composite Nails and Staples

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Raptor® composite nails and staples having part numbers: B/18-044, B/18-

063, B/18-080, B/18-100, F/15-050CP, F/15-063CP, F/15-075CP, F/15-100CP, F/15-125, F/15-125CP, F/15-150, F/15-150CP, F/15-200, F/14-225, P/16-044, P/16-063, P/16-075, P/18-044, P/18-063, P/18-080, P/18-100, S/05-25, S/05-25LF, S/05-37, S/05-37LF, S/05-55, SH/04-40, SH/05-37, SH/05-37LF, SH/05-55, CL-050, CL-100, CL-275, CL-400, COIL-5/0, COIL-5/15, COIL-8/15, BULK-5, BULK-8, Copula-100, Copula-120,

SPIKE-6

Recommended Use: Wooden joinery, composites joinery, plastics joinery

Restrictions on Use: Not approved for in vivo use

Not approved for food contact

Manufacturer: Utility Composites, Inc.

888 CR 108 Hutto, TX 78634 512-846-4027

2. HAZARDS IDENTIFICATION

Potential health effects: Installation of fasteners using pneumatic staplers and nailers causes the fasteners to exit the stapler or nailer with enough force to penetrate skin and can cause punctures, lacerations, bleeding and pain.

3. COMPOSITION/INFORMATION ON INGREDIENTS	Weight %*	CAS#
Synthetic thermoplastic *	> 50	unknown
Glass Fiber	< 50	65997-17-3

^{*}The thermoplastic and exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Eye contact: In case of eye exposure to fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. Rinse eye cautiously with water for several minutes, while eyelid being open. If eye irritation persists, seek medical attention/advice. Protection: none required; however, use of eye protection is good practice.

Skin Contact: No significant irritation expected other than possible mechanical irritation. Wash off with soap and water. In case of injury, get immediate medical attention. Cool skin rapidly with cold water after contact with hot polymer. Protection: none required; however, use of protective gloves and full-sleeve clothing is good practice.

Inhalation: In case of inhalation of fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. If problem persists, get immediate medical attention. In case of inhalation of dust remove to fresh air. If adverse effects persist, call a physician.

Ingestion: Not a likely route of exposure to this product but expected to be relatively non-toxic; if a large amount is swallowed, get medical attention.

5. FIRE-FIGHTING MEASURES

Special hazards: Combustible material and heating can release hazardous gases.

Suitable extinguishing media: Water, Foam, Powder, Water Spray, Carbon dioxide (CO₂).

Firefighting Instructions: Wear fire resistant personal protective equipment and self-contained breathing apparatus.

Flash Point: not applicable

Autoignition temperature: No data available Flammability/Explosive limit: No data available

6. ACCIDENTAL RELEASE MEASURES

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): Spilled material is a slipping hazard. Sweep any product from floor.

Accidental Release Disposal: Dispose of in accordance with all applicable federal, state and local regulations.

7. HANDLING AND STORAGE

Store at ambient temperatures. Keep containers closed to prevent contamination.

Keep away from open flames, hot surfaces, and source of ignition. Avoid dust formation.

Handle in accordance with good industrial hygiene and safety practice.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Particulates, not otherwise regulated Exposure Limits Basis

TWA 15 mg/m³, total dust Occupational Safety & Health Admin.
TWA 5 mg/m³, respirable dust Occupational Safety & Health Admin.

Glass Oxide, chemicals

TWA 1 fiber/cm³ American Conf of Government Industrial

Hygienists

Wear safety glasses with side-shields and long-sleeved clothing when installing the fasteners. Handle in accordance with good industrial hygiene and safety practice. Proper safety procedures should be developed for each intended application.

When using this product, typical applications do not generate significant dust; however, if workers are facing dust concentrations above the exposure limit, they must use appropriate certified respirators. Provide appropriate exhaust ventilation at places where dust is formed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid plastic staples or nails

Odor: Odorless

Appearance: Natural color

Melting Point: $> 200 \,^{\circ}\text{C} \, (> 392 \,^{\circ}\text{F})$ Decomposition Temperature: $420 \,^{\circ}\text{C} \, (788 \,^{\circ}\text{F})$ Vapor Pressure (mmHg): Negligible

Specific Gravity: >1

Water Solubility:

Wolatiles:

Flash Point:

Dust explosion constant:

Minimum ignition energy:

Insoluble

Negligible

Not applicable

153 m.bars/s St1

30 – 100 mJ

10. STABILITY AND REACTIVITY

Stability: Stable.

Reactivity: Not reactive under recommended conditions of handling storage and use.

Dangerous reactions: None identified

Hazardous decomposition products: Under fire conditions, fasteners may ignite and decompose to carbon

monoxide, ammonia, aldehydes, nitriles, nitrogen oxides. The release of other

hazardous decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity:

Oral Effects: No data available
Inhalation Effects: No data available

Eye Effects: No data available
Skin Effects: No data available
Other routes of administration: No data available

Other Effects: The mixture is not considered hazardous as specific extraction experiments

showed that the components hazardous to health are not released from the

polymeric matrix in quantities sufficient to exert adverse effects.

12. ECOLOGICAL INFORMATION

General: This material is not expected to be harmful to the environment.

Storage requirements: No special requirements

Spills & Leaks: N/A

13. DISPOSAL CONSIDERATIONS

Waste disposal: Disposal must be in accordance with applicable federal, state and local regulations. Determine waste classification at the time of disposal. Enclosed, controlled licensed incineration is recommended unless directed otherwise by applicable ordinances. Can be landfilled, when in compliance with local regulations.

14. TRANSPORT INFORMATION

Not regulated in transportation by DOT, TDG, NOM, IMDG and IATA.

15. REGULATORY INFORMATION

U.S. TSCA Inventory: Listed on Inventory

Japan CSCL-Inventory of Existing
And New Chemical Substances
Australia Inventory of Chemical

In compliance with the inventory

Substances In compliance with the inventory

Korean Existing Chemical

Inventory In compliance with the inventory

Canadian Domestic Substances List
(DSL)

In compliance with the inventory

Philippines Inventory of Chemicals
and Chemical Substances

(PICCS)

In compliance with the inventory
Exempted as polymer

China Inventory of Existing
Chemical Substances in China

(IECSC) In compliance with the inventory European Registration, Evaluation,

Authorisation and Restriction of In compliance with REACH Chemical (REACH)

US. EPA EPCRA SARA Title III

Section 311/312 (40 CFR 370) Combustible dust Yes Section 313 Toxic Chemicals (40

CFR 372.65) This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established

by SARA Title III, Section 313.

Section 302 (40 CFR 355) This material does not contain any components with a section 302 EHS TPQ.

This material does not contain any components with a SARA 302 RQ.

Section 304 (40 CFR 355) This material does not contain any components with a section 304 EHS RQ.

U.S. EPA CERCLA (40 CFR 302.4) This material does not contain any components with a CERCLA RQ.

California Proposition 65 This product does not contain any chemicals known to the State of California

to cause cancer, birth, or any other reproductive defects.

16. OTHER INFORMATION

Issued: March 10, 2020

Supersedes: 01-11174-1, 01-11119-1, 01-11290-1, 01-01285-1, 01-05261-1

Document: STD 200310-1

ISSUE INFORMATION

By: Pamela S. Tucker, PhD Utility Composites Inc.

SAFETY DATA SHEET: Raptor® Composite Nails and Staples

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Raptor® composite fasteners having part numbers: B/18-044BR, B/18-044CD,

B/18-063BR, B/18-063CD, B/18-063RW, B/18-063WE, B/18-080BR, B/18-080RW, B/18-100BR, B/18-100CD, B/18-100RW, B/18-100WE, F/15-050CP CD, F/15-075CP CD, F/15-100CP BR, F/15-100CP CD, F/15-100CP RW, F/15-125CP BR, F/15-125CP CD, F/15-150 CD, F/15-150CP RD, F/14-225 CD, P/16-063BR, P/16-075CD, P/18-063RW, P/18-080BR, S/05-25BR, S/05-37BL, S/05-37BR, S/05-37CD, S/05-37RD, S/05-37RW, S/05-37WE S/05-55BL, S/05-55BR, SH/05-37RD, COIL-5/0 CD, COIL-5/0 RW, COIL-5/15 BL, COIL-5/15 BL, COIL-5/15 CD, COIL-5/15 RW, BULK-5 BR, BULK-5 CD, BULK-5 GR, BULK-5 RW, SNAP STUD DkGrey, SNAP STUD LtGrey

Recommended Use: Composites manufacturing, Fiberglass lay-up, Lumber wrap and tagging,

Woodworking, Casket lining, Case goods tagging, House wrap, Boat building,

Foam and Balsa core joining

Restrictions on Use: Not approved for in vivo use

Not approved for food contact

Manufacturer: Utility Composites, Inc.

888 CR 108 Hutto, TX 78634

Emergency phone: 512-846-4027

2. HAZARDS IDENTIFICATION

Potential health effects: Installation of staples using pneumatic staplers causes the staples to exit the stapler with enough force to penetrate skin and can cause punctures, lacerations, bleeding and discomfort.

3. COMPOSITION/INFORMATION ON INGREDIENTS	Weight %*	CAS#
Synthetic thermoplastic *	> 50	unknown
Glass Fiber	< 50	65997-17-3

*The thermoplastic and exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Eye contact: In case of eye exposure to fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. Rinse eye cautiously with water for several minutes, while eyelid being open. If eye irritation persists, seek medical attention/advice.

Protection: none required; however, use of eye protection is good practice.

Skin Contact: No significant irritation expected other than possible mechanical irritation. Wash off with soap and water. In case of injury, get immediate medical attention.

Protection: none required; however, use of protective gloves and full-sleeve clothing is good practice.

Inhalation: In case of inhalation of fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. If problem persists, get immediate medical attention.

Ingestion: Not a likely route of exposure to this product but expected to be relatively non-toxic; if a large amount is swallowed, get medical attention.

5. FIRE-FIGHTING MEASURES

Special hazards: Combustible material and heating can release hazardous gases.

Suitable extinguishing media: Water, Foam, Powder, Water Spray, Carbon dioxide (CO₂).

Firefighting Instructions: Wear fire resistant personal protective equipment and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): Spilled material is a slipping hazard. Sweep any product from floor.

Accidental Release Disposal: Dispose of in accordance with all applicable federal, state and local regulations.

7. HANDLING AND STORAGE

Store at ambient temperatures. Keep containers closed to prevent contamination.

Keep away from open flames, hot surfaces, and source of ignition. Avoid dust formation.

Handle in accordance with good industrial hygiene and safety practice.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Glass, oxide, chemicals **Exposure Limits**

5 mg/m³, inhalable dust TWA (ACGIH)

1 fibers/cm³, fibers TWA (ACGIH)

Wear safety glasses with side-shields and long-sleeved clothing when installing the staples. Handle in accordance with good industrial hygiene and safety practice. Proper safety procedures should be developed for each intended application.

When using this product, typical applications do not generate significant dust; however, if workers are facing dust concentrations above the exposure limit they must use appropriate certified respirators. Provide appropriate exhaust ventilation at places where dust is formed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid plastic staples

Odor: Odorless

Appearance: Natural or customized color

Melting Point: $> 200 \, ^{\circ}\text{C} \, (> 392 \, ^{\circ}\text{F})$

Vapor Pressure (mmHg): Negligible

Specific Gravity: >1

Water Solubility: Insoluble % Volatiles: Negligible Flash Point: Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Reactivity: Not reactive under recommended conditions of handling storage and use.

Dangerous reactions: None identified

Hazardous decomposition

Under fire conditions, staples may ignite and decompose to carbon monoxide, ammonia, aldehydes, nitriles, nitrogen oxides. The release of other hazardous products:

decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Exposure to fiber glass can affect respiratory tract.

Eye Effects: Non-irritating Skin Effects: Non-irritating

Contains glass, oxide, chemicals (Group 2A and Group 2B: possible carcinogen to Carcinogenicity:

humans (IARC) and confirmed carcinogen to animals with unknown relevance to

humans (ACGIH).

This product does not contain any ingredient designated as probable or suspected

human carcinogens by: NTP and OSHA.

Other Effects: None

12. ECOLOGICAL INFORMATION

General: This material is not expected to be harmful to the environment.

Storage requirements: No special requirements

Spills & Leaks: N/A

13. DISPOSAL CONSIDERATIONS

Waste disposal: Disposal must be in accordance with applicable federal, state and local regulations. Determine waste classification at the time of disposal. Enclosed, controlled incineration is recommended unless directed otherwise by applicable ordinances. Not listed as RCRA Hazardous Waste (40 CFR 302).

14. TRANSPORT INFORMATION

Not regulated in transportation by DOT, TDG, NOM, IMDG and IATA.

15. REGULATORY INFORMATION

US TSCA Inventory: Listed on Inventory

Other Inventory Japan CSCL, AICS, KECI, DSL, PICCS, IECSC, REACH

Compliance:

US. EPA EPCRA SARA Section 302 (Extremely Hazardous Substance): None

Title III: Section 304 (Emergency Release Notification Reportable Quantity): None

Section 313 (Toxic Chemicals): None

California Proposition 65 This product contains substances including lead which are known in the State of

California to cause cancer or reproductive toxicity. For more information go to

www.P65Warnings.ca.gov.

16. OTHER INFORMATION

Issued: 10-26-2018

Document: STD Colored 102618

ISSUE INFORMATION

By: Rajkiran R. Tiwari, PhD Utility Composites Inc.

SAFETY DATA SHEET: Raptor® Composite Nails and Staples

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Raptor® composite nails and staples having part numbers: B/18-044, B/18-044

BK, B/18-063, B/18-080, B/18-080 BK, B/18-100, F/15-050CP, F/15-050CP WH, F/15-063CP, F/15-063CP BK, F/15-075CP, F/15-075CP BK, F/15-075CP WH, F/15-100CP, F/15-100CP WH, F/15-125, F/15-125 WH, F/15-125CP, F/15-125CP WH, F/15-150, F/15-150CP, F/15-150CP WH, F/15-200, F/15-200 WH, F/14-225, P/16-044, P/16-044 WH, P/16-063, P/16-063 WH, P/16-075, P/18-044, P/18-044 WH, P/18-044 BK, P/18-063, P/18-063 WH, P/18-080, P/18-080 BK, P/18-100, S/05-25, S/05-25LF, S/05-37, S/05-37BK, S/05-37LF, S/05-55, SH/04-40, SH/05-37, SH/05-37 BK, SH/05-37LF, SH/05-55, CL-050, CL-100, CL-275, CL-400, COIL-5/0, COIL-5/15, COIL-5/15-BK, COIL-8/15, BULK-5, BULK-8,

Copula-100, Copula-120, SNAP STUD BK, SNAP STUD WH, SPIKE-6

Recommended Use: Composites manufacturing, Fiberglass lay-up, Lumber wrap and tagging,

Woodworking, Casket lining, Case goods tagging, House wrap, Boat building,

Foam and Balsa core joining

Restrictions on Use: Not approved for in vivo use

Not approved for food contact

Manufacturer: Utility Composites, Inc.

888 CR 108 Hutto, TX 78634

Emergency phone: 512-846-4027

2. HAZARDS IDENTIFICATION

Potential health effects: Installation of staples using pneumatic staplers causes the staples to exit the stapler with enough force to penetrate skin and can cause punctures, lacerations, bleeding and discomfort.

3. COMPOSITION/INFORMATION ON INGREDIENTS	Weight %*	CAS#
Synthetic thermoplastic *	> 50	unknown
Glass Fiber	< 50	65997-17-3

^{*}The thermoplastic and exact percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Eye contact: In case of eye exposure to fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. Rinse eye cautiously with water for several minutes, while eyelid being open. If eye irritation persists, seek medical attention/advice.

Protection: none required; however, use of eye protection is good practice.

Skin Contact: No significant irritation expected other than possible mechanical irritation. Wash off with soap and water. In case of injury, get immediate medical attention.

Protection: none required; however, use of protective gloves and full-sleeve clothing is good practice.

Inhalation: In case of inhalation of fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. If problem persists, get immediate medical attention.

Ingestion: Not a likely route of exposure to this product but expected to be relatively non-toxic; if a large amount is swallowed, get medical attention.

5. FIRE-FIGHTING MEASURES

Special hazards: Combustible material and heating can release hazardous gases.

Suitable extinguishing media: Water, Foam, Powder, Water Spray, Carbon dioxide (CO₂).

Firefighting Instructions: Wear fire resistant personal protective equipment and self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): Spilled material is a slipping hazard. Sweep any product from floor.

Accidental Release Disposal: Dispose of in accordance with all applicable federal, state and local regulations.

7. HANDLING AND STORAGE

Store at ambient temperatures. Keep containers closed to prevent contamination.

Keep away from open flames, hot surfaces, and source of ignition. Avoid dust formation.

Handle in accordance with good industrial hygiene and safety practice.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Glass, oxide, chemicals Exposure Limits

TWA (ACGIH) 5 mg/m³, inhalable dust

TWA (ACGIH) 1 fibers/cm³, fibers

Wear safety glasses with side-shields and long-sleeved clothing when installing the staples. Handle in accordance with good industrial hygiene and safety practice. Proper safety procedures should be developed for each intended application.

When using this product, typical applications do not generate significant dust; however, if workers are facing dust concentrations above the exposure limit they must use appropriate certified respirators. Provide appropriate exhaust ventilation at places where dust is formed.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid plastic staples

Odor: Odorless

Appearance: Natural or customized color

Melting Point: $> 200 \, ^{\circ}\text{C} \, (> 392 \, ^{\circ}\text{F})$

Vapor Pressure (mmHg): Negligible

Specific Gravity: >1
Water Solubility: Insoluble
% Volatiles: Negligible
Flash Point: Not applicable

10. STABILITY AND REACTIVITY

products:

Stability: Stable at normal temperatures and storage conditions.

Reactivity: Not reactive under recommended conditions of handling storage and use.

Dangerous reactions: None identified

Hazardous decomposition Under fire conditions, staples may ignite and decompose to carbon monoxide,

ammonia, aldehydes, nitriles, nitrogen oxides. The release of other hazardous

decomposition products is possible.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Exposure to fiber glass can affect respiratory tract.

Eye Effects: Non-irritating Skin Effects: Non-irritating

Carcinogenicity: Contains glass, oxide, chemicals (Group 2A and Group 2B: possible carcinogen to

humans (IARC) and confirmed carcinogen to animals with unknown relevance to

humans (ACGIH).

This product does not contain any ingredient designated as probable or suspected

human carcinogens by: NTP and OSHA.

Other Effects: None

12. ECOLOGICAL INFORMATION

General: This material is not expected to be harmful to the environment.

Storage requirements: No special requirements

Spills & Leaks: N/A

13. DISPOSAL CONSIDERATIONS

Waste disposal: Disposal must be in accordance with applicable federal, state and local regulations. Determine waste classification at the time of disposal. Enclosed, controlled incineration is recommended unless directed otherwise by applicable ordinances. Not listed as RCRA Hazardous Waste (40 CFR 302).

14. TRANSPORT INFORMATION

Not regulated in transportation by DOT, TDG, NOM, IMDG and IATA.

15. REGULATORY INFORMATION

US TSCA Inventory: Listed on Inventory

Other Inventory Japan CSCL, AICS, KECI, DSL, PICCS, IECSC, REACH

Compliance:

US. EPA EPCRA SARA Section 302 (Extremely Hazardous Substance): None

Title III: Section 304 (Emergency Release Notification Reportable Quantity): None

Section 313 (Toxic Chemicals): None

California Proposition 65 This product contains glass fiber which is known in the State of California to

cause cancer. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

Issued: 10-23-2018

Supersedes: 01-11174-1, 01-11119-1, 01-11290-1, 01-01285-1, 01-05261-1

Document: STD 04155-1

ISSUE INFORMATION

By: Rajkiran R. Tiwari, PhD Utility Composites Inc.

SAFETY DATA SHEET: S/05-37MD; SH/04-40MD; SH/05-37MD; S/05-37MD RD; S/05-25MD RD

1. PRODUCT AND COMPANY IDENTIFICATION

Trade Name: Raptor® composite staples including part numbers: S/05-37MD; SH/04-40MD;

SH/05-37MD; S/05-37MD RD; S/05-25MD RD; BIS-05-10-MD

Recommended Use: Composites manufacturing, Fiberglass lay-up, Lumber wrap and tagging, Casket

lining, Case goods tagging, House wrap, Boat building

Restrictions on Use: Not approved for in vivo use

Not approved for food contact

Manufacturer: Utility Composites, Inc.

888 CR 108 Hutto, TX 78634

Emergency phone: 512-846-4027

2. HAZARDS IDENTIFICATION

Potential health effects: Installation of staples using pneumatic staplers causes the staples to exit the stapler with enough force to penetrate skin and can cause punctures, lacerations, bleeding and discomfort.

3. COMPOSITION/INFORMATION ON INGREDIENTS Weight $\%^*$ CAS # Synthetic thermoplastic* > 50 unknown Glass < 45 65997-17-3 Additives < 3 Unknown

4. FIRST AID MEASURES

Eye contact: In case of eye exposure to fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. Rinse eye cautiously with water for several minutes, while eyelid being open. If eye irritation persists: seek medical attention/advice.

Protection: none required; however, use of eye protection is good practice.

Skin Contact: No significant irritation expected other than possible mechanical irritation. Cleansing the skin with soap and water after use is advisable.

Protection: none required; however, use of protective gloves and full-sleeve clothing is good practice.

Inhalation: In case of inhalation of fumes due to the thermal decomposition of the product from burning, move personnel to fresh air. If problem persists, get immediate medical attention.

Ingestion: Not a likely route of exposure to this product but expected to be relatively non-toxic. If a large amount is swallowed, get medical attention.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media: Water, Foam, Dry chemical, Carbon dioxide (CO₂).

Firefighting Instructions: Wear fire resistant personal protective equipment. Evacuate personnel and keep upwind of fire.

6. ACCIDENTAL RELEASE MEASURES

Use appropriate PERSONAL PROTECTIVE EQUIPMENT during clean-up.

Safeguards (Personnel): Spilled material is a slipping hazard. Sweep any product from floor.

Accidental Release Disposal: Dispose of in accordance with all applicable federal, state and local regulations.

7. HANDLING AND STORAGE

Store at ambient temperatures. Keep containers closed to prevent contamination.

Keep away from open flames, hot surfaces, and source of ignition. Avoid dust formation.

Handle in accordance with good industrial hygiene and safety practice.

^{*}The exact thermoplastic and percentage of composition has been withheld as a trade secret.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Thermoplastic Exposure limits

PEL (OSHA) 5 mg/m³, 8 hr. TWA, respirable dust

15 mg/m³, 8 hr. TWA, total dust

TLV (ACGIH) 3 mg/m³, TWA, respirable dust

10 mg/m³, TWA, inhalable dust

Fiberglass, additives

TLV (ACGIH) 5 mg/m3 TWA, inhalable fraction

TLV (ACGIH) 1 fibers/cm3 TWA, fibers

Wear safety glasses with side-shields and full-sleeve clothing when installing the staples.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State: Solid plastic staples

Odor: Odorless

Appearance: Natural color

Melting Point: $> 200 \, ^{\circ}\text{C} \, (> 392 \, ^{\circ}\text{F})$

Vapor Pressure (mmHg): Negligible

Specific Gravity: >1

Water Solubility: Insoluble
% Volatiles: Negligible
Flash Point: Not applicable

10. STABILITY AND REACTIVITY

Stability: Stable at normal temperatures and storage conditions.

Materials to avoid: Strong acids, strong bases, strong oxidizers.

Reactivity: Stable at normal temperatures and storage conditions.

Dangerous reactions: None identified

Hazardous decomposition

products:

Under fire conditions, staples may ignite and decompose to carbon monoxide,

carbon dioxide, cyclopentanone, ammonia, nitrogen oxides, traces of hydrogen cyanide, and aldehydes. The release of other hazardous decomposition products is

possible.

11. TOXICOLOGICAL INFORMATION

Acute Toxicity: Exposure to fiber glass can affect respiratory tract.

Eye Effects: Non-irritating Skin Effects: Non-irritating

Other Effects: None

Carcinogenicity: Contains glass, oxide, chemicals (Group 2A and Group 2B: possible carcinogen to

humans (IARC) and confirmed carcinogen to animals with unknown relevance to

humans (ACGIH).

This product does not contain any ingredient designated as probable or suspected

human carcinogens by NTP and OSHA.

12. ECOLOGICAL INFORMATION

General: This material is not expected to be harmful to the environment.

Storage requirements: No special requirements

Spills & Leaks: N/A

13. DISPOSAL CONSIDERATIONS

Waste disposal: Disposal must be in accordance with applicable federal, state and local regulations. Determine waste classification at the time of disposal. Recycling, incineration with energy output and landfill is recommended unless directed otherwise by applicable ordinances.

14. TRANSPORT INFORMATION

Not regulated in transportation by DOT/IMO/IATA.

15. REGULATORY INFORMATION

TSCA In compliance with TSCA Inventory requirements for commercial purposes.

SARA 311/312 Hazard Combustible dust

classification

SARA 313 Regulated This material does not contain any chemical components that exceed the threshold

Chemical(s) reporting levels established by SARA Title III, Section 313.

PA Right to Know Substances at a concentration of 1% or more (0.01% for Special Hazardous

Regulated Chemical(s) Substances): None known.

NJ Right to Know Substances at a concentration of 1% or more (0.1% for substances identified as

Regulated Chemical(s) carcinogens, mutagens or teratogens): None known.

California Proposition 65 This product can expose you to substances including unspecified lead compounds,

which is/are known in the State of California to cause cancer and birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

16. OTHER INFORMATION

Issued: 09-25-2019 Supersedes: 10-23-2018 Document: MD-041155-1

ISSUE INFORMATION

By: Rajkiran R. Tiwari, PhD Utility Composites Inc.