I. PRODUCT AND COMPANY IDENTIFICATION

Company: Simpson Strong-Tie Company, Inc.
Address: 5956 W. Las Positas Blvd.
Pleasanton, CA 94588

Product Name: **CPFH09, CPFH09KT, FH05 - Ultra**
Product Description: Polyurethane Sealant Adhesive

Emergency Contact No.: 1-800-535-5053 **USA**
1-352-323-3500 **International**

Date Prepared or Revised: March 2012
Supercedes: October 2008
For most current MSDS, please visit our website at www.simpsonanchors.com.

II. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Names	CAS Numbers
MDI Prepolymer	N/E
Polymeric Diphenylmethane Diisocyanate	9016-87-9
Diphenylmethane Diisocyanate Mixed Isomers	26447-40-5
Methylene Bisphenyl Isocyanate	101-68-8
2,2-dimethyl-1(methylethyl)-1,3-propanediyl bis(2-methlpropanoate)	6846-50-0

III. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Non-corrosive.
Irritating to eyes, skin, and respiratory system.
May cause respiratory sensitization and risk of serious damage to respiratory system when inhaled at the levels above the occupational exposure limit.
A hyper-reactive response to even minimal concentrations of diisocyanates may develop in sensitized persons. The onset of the respiratory symptoms may be delayed for several hours after exposure.

POTENTIAL HEALTH EFFECTS

ACUTE

Eyes Contact: May cause eye irritation, swelling, tearing, or redness.
Skin Contact: Moderate irritation. May cause skin sensitization, evidenced by rashes and hives.
Inhalation: Moderate irritation to the nose and respiratory tract.
Ingestion: May cause irritation to the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.
Systemic Effects: Lungs, eyes, and skin.

SIGNS AND SYMPTOM OF OVEREXPOSURE

Eye Contact: May cause eye irritation. Prolonged contact to the eyes may cause reversible corneal opacity to occur, with no visual impairment expected.
Skin Contact: May cause skin irritation and skin sensitization.
Inhalation: Moderate irritation to the nose and respiratory tract. May experience allergic respiratory reactions when exposed to amounts below the exposure guidelines.
Ingestion: May cause irritation to the gastrointestinal tract and gastrointestinal discomfort with any or all of the following symptoms: nausea, vomiting, lethargy, or diarrhea.
Systemic Effects: Lungs, eyes, and skin.

MEDICAL CONDITION AGGRAVATED

Asthma, other respiratory disorders (bronchitis emphysema, bronchia hyperreactivity), skin allergies, eczema.
Sensitization: Any individual with isocyanate sensitization should not be exposed to this product. These individuals can react to exposure well below the TLV. Symptoms can occur immediately or several hours after exposure.

IV. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. If redness, burning, blurred vision or swelling persist, **CONSULT A PHYSICIAN**.

Skin Contact: Remove product and immediately wash affected area with soap and water. Do not apply greases or ointments. Remove contaminated clothing. Wash clothing with soap and water before reuse. If redness, burning, or swelling persist, **CONSULT A PHYSICIAN**.

Ingestion: **DO NOT INDUCE VOMITING**. Never administer anything by mouth to an unconscious person. Rinse out mouth with water, then drink sips of water to remove taste from mouth. **CONSULT A PHYSICIAN** if vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Inhalation: Remove patient to fresh air, keep warm, and at rest. If patient continues to experience difficulty breathing, **CONSULT A PHYSICIAN** immediately.

Note to Physician: Symptomatic and supportive therapy as need. Following severe exposure, medical follow-up should be monitored for at least 48 hours. May cause respiratory sensitization or asthma-like symptoms. Respiratory symptoms, including pulmonary edema, may be delayed.

V. FIRE-FIGHTING MEASURE

Suitable Extinguishing Media: Water fog, carbon dioxide or dry chemical, aqueous foam.

Fire And Explosion Hazard: Under fire conditions, hazardous decomposition products may produce carbon monoxide**,** nitrous oxide, HCN, and carbon dioxide**.** Closed containers could explode at high temperature. Reacts slowly with water to produce carbon dioxide which may rupture closed containers. This reaction accelerates at higher temperatures. Do not allow run-off from fire fighting to enter drains or water courses.

Fire Fighting Equipment and Procedures: Wear full protective clothing and self contained breathing apparatus for fire fighting. Isolate fuel supply from fire. Clear fire area of all non-emergency personnel. Use water spray to cool fire-exposed surfaces and containers.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use cautious judgment when cleaning up spill. Shut off leaks, if possible without personal risk. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

Environmental Precautions: Construct dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

Clean-up Methods: **Small spills**: Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Move to outside well-ventilated area. Treat with 10 parts decontamination solution to 1 part isocyanate. Mix well. Allow to stand uncovered for 48 hours before disposal

Large spills: Approach suspected leak areas with caution. Eliminate all ignition sources. Evacuate and ventilate the area. Create a dike or trench to contain material. Keep out of sewers, storm drains, surface waters, and soils. Use self contained breathing apparatus and chemical protective clothing. Clean-up residue with absorbent material such as clay, sand or other suitable non-reactive material. Do not use combustible material such as sawdust. Place material in leak-proof containers. Treat with 10 parts decontamination solution to 1 part isocyanate. Mix well. Allow to stand uncovered for 48 hours before disposal. Clean spill area with decontamination solution and allow to stand for 15 minutes before removal. Test atmosphere for MDI.

Decontamination Solution Procedure: Concentrated ammonia (5%), detergent (2%), and water (93%).

Additional Information: Notify authorities if any exposures to the general public or environment occur or are likely to occur. Dispose of in accordance with federal, state, and local regulations.

VII. STORAGE AND HANDLING

Precautions: Keep containers tightly sealed and away from heat source and or open flames. Do not store containers in open sunlight. Store in cool, well-ventilated area.

Storage: Containers can rupture if exposed to high heat. Protect from atmospheric moisture. Keep in cool, dry, well-ventilated area in closed containers. Protect containers from physical damage. Do not reseal if contaminated. After container has been opened, blanket with nitrogen before resealing.

Handling: To prevent skin and eye contact under the foreseeable conditions of use, wear appropriate protective clothing and safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Avoid breathing fumes. Handle in a well-ventilated work area.

Storage Temperature: (55°F) minimum to (120°F) maximum.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective Measure: Wear appropriate personal protective equipment.

Eye Protection: Avoid contact with eyes. Wear chemical splash goggles or safety glasses with side shield.

Hand Protection: Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.

Skin and Body Protection: Wear chemical-resistant gloves and other clothing as required to minimize contact.

Respirator Protection: Not required for properly ventilated areas. Use appropriate respirator if the exposure level exceed the PEL/TLV.

Exposure Limits:

COMPONENT		ACGIH (TLV)	OSHA (PEL)
MDI Prepolymer	TWA	N/E	N/E
Polymeric Diphenylmethane Diisocyanate	TWA	0.05 ppm	0.2 ppm
Diphenylmethane Diisocyanate Mixed Isomers	TWA	N/E	N/E
Methylene Bisphenyl Isocyanate	TWA	0.05 ppm	0.2 ppm
2,2-dimethyl-1(methylethyl)-1,3-propanediyl bis(2-methlpropanoate)	TWA	N/E	N/E

Other Use Precautions: Medical supervision of all employees who handle or come in contact with respiratory sensitizers is recommended. Persons with respiratory problems including asthmatic-type conditions chronic bronchitis, or other chronic respiratory diseases or recurrent skin eczema or skin allergies should be evaluated for their suitability of working with this product. Once a person is diagnosed as sensitized, no further exposure of material that caused the sensitization should be permitted. The Occupational Exposure limits do not apply to previously sensitized individuals.

IX. PHYSICAL AND CHEMICAL PROPERTIES

Form: Liquid

Color: Clear to light yellow

Odor: Slightly musty

Vapor Pressure: N/E

Boiling Point: N/E

Freezing Point: N/E

Flash Point: >200°F Close Cup

Specific Gravity: 1.06 – 1.07 @ 77°F

Viscosity: 500 – 700 cps @ 77°F

Solubility In Water: Insoluble

X. REACTIVITY DATA

Stability: Stable under recommended storage conditions

Conditions To Avoid: High temperature and open flame. Moisture. Contaminated container

Materials To Avoid: Water, alcohol, amines, bases, acids. The reaction with water is very slow under 122°F but is accelerated at higher temperatures.

Hazardous Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide, nitrous oxide, and HCN.

Hazardous Polymerization: May occur at elevated temperatures in the presence of alkalies, tertiary amines, and metal compounds.

Chemical Fate Information: Immiscible with water but will react with water to produce inert and non-biodegradable solid.

XI. TOXICOLOGICAL PROPERTIES

Acute Oral (LD_{50}, Rat): >3200 mg/kg
Acute Dermal (LD_{50}, Rabbit): >5000 mg/kg
Acute Inhalation (LC_{50}, Rat): N/E

Chronic Health Hazard

There is no substantial evidence of mutagenic. No adverse reproductive effects are anticipated. A study was conducted where groups of rats were exposed for 6 hrs./day, 2 days/week for a lifetime to atmospheres of respirable polymeric MDI aerosol at $6mg/m^3$ concentration. Increased incidence of benign tumor of the lungs (adenoma) and one malignant pulmonary tumor (adenocarcinoma) were seen in these rats. MDI administration to rats in this study did not change the distribution and incidence of tumors from those seen in control animals. The increased incidence of lung tumors is associated with prolonged respiratory irritation and the concurrent accumulation of yellow material in the lung. It is highly unlikely that tumor formation will occur under normal exposure.

XII. DISPOSAL CONSIDERATIONS

Waste From Residues / Unused Products: This material is not a hazardous waste by RCRA criteria (40 CFR 261). Dispose of container and unused contents in accordance with federal, state, and local requirements.

XIII. TRANSPORTATION

US DOT (CFR): Not Regulated For Transport.
IATA: Not Regulated For Transport.
IMO: Not Regulated For Transport.

XIV. REGULATORY INFORMATION

Country	Regulatory List
USA	TSCA

EPA SARA Title III Section 312 (40 CFR 370) Hazardous Classification:
Acute/Chronic Health Hazard.
EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level:
Diisocyanate compounds.
US. California "Safe Drinking Water and Toxic Enforcement Act" (Proposition 65):
This product may contain chemicals that are known to the State of California to cause cancer and/or reproductive toxicity and other harm.

XV. OTHER INFORMATION

HMIS RATING

Health	Flammability	Physical Hazard
2	1	1

N/E – Not Established

This Material Safety Data Sheet (MSDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this MSDS. This MSDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty, expressed or implied, is hereby made. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

I. PRODUCT AND COMPANY IDENTIFICATION

Company: Simpson Strong-Tie Company, Inc.
Address: 5956 W. Las Positas Blvd.
Pleasanton, CA 94588

Product Name: **CPFH09, CPFH09KT, FH05 - Ultra Accelerator**
Product Description: Accelerator For Polyurethane Sealant Adhesive

Emergency Contact No.: 1-800-535-5053 **USA**
1-352-323-3500 **International**

Date Prepared or Revised: March 2012
Supercedes: October 2008
For most current MSDS, please visit our website at www.simpsonanchors.com.

II. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Names	CAS Numbers
Tertiary Amine	N/E
Tin mercaptide	N/E

The remaining ingredients are designated as "trade secret".

III. HAZARD IDENTIFICATION

EMERGENCY OVERVIEW

Non-corrosive.
Moderate irritation to eyes and skin.
May cause skin sensitization.
Combustible liquid. Keep away from heat and all sources of ignition.

POTENTIAL HEALTH EFFECTS

ACUTE

Eye Contact: May cause severe eye irritation, swelling, tearing, redness or cornea damage.

Skin Contact: Moderate irritation. May cause skin sensitization, evidenced by rashes and hives.

Inhalation: Moderate irritation to the nose and respiratory tract. Prolonged and repeated overexposure may result in lung damage.

Ingestion: Harmful if swallowed.

Systemic Effects: Lungs, eyes, and skin.

IV. FIRST AID MEASURES

Eye Contact: Immediately flush eyes with plenty of cool water for at least 15 minutes while holding the eyes open. If redness, burning, blurred vision, or swelling persists, **CONSULT A PHYSICIAN**.

Skin Contact: Remove product and immediately wash affected area with soap and water. Do not apply greases or ointments. Remove contaminated clothing. Wash clothing with soap and water before reuse. If redness, burning, or swelling persists, **CONSULT A PHYSICIAN**.

Ingestion: **DO NOT INDUCE VOMITING**. Never administer anything by mouth to an unconscious person. Rinse out mouth with water, then drink sips of water to remove taste from mouth. **CONSULT A PHYSICIAN** if vomiting occurs spontaneously, keep head below hips to prevent aspiration.

Inhalation: Remove patient to fresh air. If patient continues to experience difficulty breathing, **CONSULT A PHYSICIAN**.

V. FIRE-FIGHTING MEASURE

Suitable Extinguishing Media: Water spray, fog or foam, carbon dioxide, dry chemical, limestone powder.

Fire And Explosion Hazard: Irritating and toxic fumes may be produced at high temperature. In a fire, may produce carbon monoxide, toxic nitrogen oxide, ammonia, and carbon dioxide**.** Clear fire area of all non-emergency personnel. Do not allow material to enter drains or water courses.

Fire Fighting Equipment and Procedure: Wear full protective clothing and self-contained breathing apparatus for fire fighting. Isolate fuel supply from fire. Use water spray to cool fire-exposed surfaces and containers. Avoid spreading burning liquid with water used for cooling purposes.

VI. ACCIDENTAL RELEASE MEASURES

Personal Precautions: Use cautious judgment when cleaning up spill. Shut off leaks, if possible without personal risk. Wear suitable protective clothing, gloves and eye/face protection. Evacuate personnel to safe areas.

Environmental Precautions: Construct a dike to prevent spreading. Keep out of sewers, storm drains, surface waters, and soils.

Clean-up Methods: **Small spills**: Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal.
Large spills: Approach suspected leak areas with caution. Create a dike or trench to contain material. Soak up with absorbent material such as clay, sand or other suitable non-reactive material. Place in leak-proof containers. Seal tightly for proper disposal.

Additional Information: Notify authorities if any exposures to the general public or environment occur or are likely to occur. Dispose in accordance with federal, state, and local regulations.

VII. STORAGE AND HANDLING

Precautions: Keep containers tightly sealed and away from heat source and/or open flames. Do not store containers in open sunlight.

Storage: Keep away from: acids, oxidizers, heat, or flames. Keep in cool, dry, well-ventilated area in closed containers. Protect containers from physical damage

Handling: To prevent skin and eye contact under the foreseeable conditions of use, wear appropriate protective clothing and safety eyewear. When handling, do not eat, drink, or smoke. Wash thoroughly after handling. Avoid breathing fumes. Handle in a well-ventilated work area.

Storage Temperature: (55°F) minimum to (100°F) maximum.

VIII. EXPOSURE CONTROLS / PERSONAL PROTECTION

Protective Measure: Wear appropriate personal protective equipment.

Eye Protection: Avoid contact with eyes. Wear chemical splash goggles or safety glasses with side shield.

Hand Protection: Wear chemical-resistant gloves such as: Nitrile, neoprene, butyl.

Skin and Body Protection: Wear chemical-resistant gloves and other clothing as required to minimize contact.

Respirator Protection: Not required for properly ventilated areas.

Exposure Limits:

Chemical Names		ACGIH (TLV)	OSHA (PEL)
Tertiary Amines	TWA	N/E	N/E
Tin Mercaptide	TWA	0.1ppm	0.1ppm*

***** Skin, danger of cutaneous absorption.

IX. PHYSICAL PROPERTIES

Form: Liquid
Color: Green
Odor: Mild amine
pH: ~10
Boiling Point: N/E
Freezing Point: N/E
Vapor Pressure: N/E
Vapor Pressure: N/E

Flash Point: 150ºF Close cup
Specific Gravity: 0.902 – 0.922@ 77°F
Viscosity: 20 – 30 cps @ 77°F
Solubility In Water: Slight

X. REACTIVITY DATA

Stability: Stable under normal storage conditions.
Conditions To Avoid: Incompatible chemicals, heat, and open flame.
Materials To Avoid: Mineral acids, organic acids, oxidizing agents, reactive metals, sodium or calcium hypochlorite, peroxide, hydroxyls, heat.
Hazardous Decomposition Products: Combustion may produce carbon monoxide, carbon dioxide, and nitrogen oxide, and other organic substances.
Hazardous Polymerization: Will not occur.

XI. TOXICOLOGICAL PROPERTIES

Acute Oral (LD_{50}, Rat): N/E
Acute Dermal (LD_{50}, Rabbit): N/E
Acute Inhalation (LC_{50}, Rat): N/E
Chronic Health Hazard Components of this product are not listed as carcinogens in concentrations of 0.1% or greater. Repeated or prolonged exposure may cause allergic reaction and/or limited sensitization.

XII. DISPOSAL CONSIDERATIONS

Waste From Residues / Unused Products: This material is not a hazardous waste by RCRA criteria (40 CFR 261). Dispose of container and unused contents in accordance with federal, state, and local requirements.

XIII. TRANSPORTATION

US DOT(CFR): Not Regulated For Transport.
IATA: Not Regulated For Transport.
IMO: Not Regulated For Transport.

XIV. REGULATORY INFORMATION

Country	Regulatory List
USA	TSCA

EPA SARA Title III Section 312 (40 CFR 370) Hazardous Classification:
Acute/Chronic Health Hazard. Fire hazard.
EPA SARA Title III Section 313(40 CFR 372) Component(s) above 'de minimus' level: None.
US. California "Safe Drinking Water and Toxic Enforcement Act" (Proposition 65):
This product may contain chemicals that are known to the State of California to cause cancer and/or reproductive toxicity and other harm.

XV. OTHER INFORMATION

HMIS RATING

Health	Flammability	Physical Hazard
2	2	1

N/E – Not Established

This Material Safety Data Sheet (MSDS) is prepared by Simpson Strong-Tie Co. in compliance with the requirements of OSHA 29 CFR Part 1910.1200. The information it contains is offered in good faith as accurate as of the date of this MSDS. This MSDS is provided solely for the purpose of conveying health, safety, and environmental information. No warranty expressed or implied, is hereby made. Health and Safety precautions may not be adequate for all individuals and/or situations. It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.