



# Material Safety Data Sheet

Revision 1

Prepared 2013-07-07

## Section 1 - Product and Company Information

Product Name: Spartaflex 72% Solids Part A

Product Code: Kit: 100, or 102, or 105

Manufacturer: HP Spartacote, Inc  
810 Brickyard Circle #1  
Golden, CO 80403

In Case of Emergency: CHEMTREC 800-424-9300

## Section 2 - Composition Information on Ingredients

Chemical Name / CAS No	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Aspartic ester TSN120 60 to 70%			No applicable information was found concerning any adverse chronic health effects from overexposure to this product.
Solvent 100 Aromatic Hydrocarbon 64742-95-6 20 to 30%	500 ppm TWA OSHA PEL 100 ppm TWA OSHA VPEL	100 ppm TWA ACGIH TLV	
Trimethylbenzene 95-63-6 10 to 20%	There is no OSHA PEL.	NIOSH, HSE, and ACGIH have adopted or recommend a TWA values (for trimethyl benzenes as a class) of 25 ppm (125 mg/m3) and the HSE STEL value is 35 ppm (170 mg/m3).	Several states have set guidelines or standard for Trimethyl benzenes in ambient air ranging from 1.25 – 1.70 mg/m3 (North Dakota) to 2.1 mg/m3 (Virginia) to 2.5 mg/m3 (Connecticut) to 2.976 mg/m3 (Nevada).

## Section 3 - Hazards Identification

WARNING!

CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE RESPIRATORY TRACT IRRITATION. HEATED MATERIAL CAN CAUSE THERMAL BURNS.

HMIS Rating: 2\* - 2 1

Primary Routes of Entry:

Inhalation      Skin Contact      Eye Contact      Ingestion

Target Organs:

Blood   Eyes      Liver      Lungs      Nervous System      Skin

**Inhalation:** Slightly irritating to the respiratory system.

**Ingestion:** Not expected to be harmful under normal conditions of use.

**Skin:** Irritating to skin. May cause sensitization by skin contact. Heated material can cause thermal burns.

**Eyes:** Irritating to eyes. Heated material can cause thermal burns.

#### **Effects of Overexposure, Spartaflex 72% Solids Part A:**

**Short Term Exposure** Trimethyl benzene can affect you when breathed in. Irritates the eyes, skin, and respiratory tract. Exposure can cause you to feel dizzy, lightheaded, and to pass out. Symptoms of exposure can also include headache, drowsiness, fatigue, dizziness, nausea, incoordination, vomiting, nervousness, tenseness, confusion. Liquid deposition in lungs causes bronchitis or chemical pneumonitis.

**Long Term Exposure** Repeated exposures can cause headaches, tiredness, and a feeling of nervous tension. Can affect the blood cells and the blood's clotting ability; hypochromic anemia. Delayed or chronic health hazard is possible asthmatic bronchitis with coughing and/or shortness of breath. The use of alcoholic beverages enhances the effect. May cause liver damage.

**Carcinogenicity:** No known significant effects or critical hazards.

**Chronic effects:** No known significant effects or critical hazards.

### **Section 4 - First Aid Measures**

**Inhalation:** Remove source of contamination or move victim to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Obtain medical advice if symptoms persist.

**Eyes:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.

**Skin:** Remove contaminated clothing, shoes and leather goods. Quickly and gently blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

**Ingestion:** Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 ml (2 to 8 oz.) of water. If vomiting occurs naturally, have victim rinse mouth with water again. Obtain medical attention.

**Notes to physician:** No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

### **Section 5 - Firefighting Measures**

Flash Point: 43 C (109 F)

LEL: 0.9 %

UEL: 6.4 %

**Extinguishing Media:** Use dry chemical, foam or fog.

**Unusual Fire and Explosion Hazards:** Isolate from heat, electrical equipment, sparks and opened flame. In a fire or if heated, a pressure increase will occur and the container may burst. Toxic gases may be released during fire.

**Hazardous Combustion Products:** See Section 10 for a list of hazardous decomposition products for this material.

**Fire Fighting:** If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with water wash-down after fire and smoke exposure.

## Section 6 - Accidental Release Measures

**Spill and Leak Procedures:** Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection.

**Small Spills:** Use an absorbent like sawdust for aqueous, waterborne or solvent-borne coatings. Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Label the waste containers. Dispose of the waste in compliance with all federal, state, regional and local regulations.

**Large Spills:** Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter sewers, watercourses or extensive land areas. Use an absorbent like sawdust for aqueous, waterborne or solvent-borne coatings. Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Label the waste container. Dispose of the waste in compliance with all federal, state, regional and local regulations.

## Section 7 - Handling and Storage

**Handling:** Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with history of skin sensitization problems should not be employed in any process in which this product is used. Wear appropriate respirator when ventilation is inadequate. Do not reuse containers.

**Storage:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready to use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Note: the resin may be handled, shipped and stored at elevated temperature in bulk.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:** Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Ventilation:** Use process enclosures, local exhaust, ventilation or other engineering controls to maintain airborne exposure levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.

**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial or local laws and regulations.

**Eye Protection:** Wear safety glasses, glasses with side shields or goggles.

**Skin and Body Protection:** Wear chemical resistant, impervious gloves and protective clothing appropriate for the risk of exposure.

## Section 9 - Physical and Chemical Properties

This product typically exhibits the following properties under normal conditions:

Appearance	<b>Viscous liquid dispersion</b>
Odor	
Physical State	Liquid

Vapor Density	3.99
Vapor Pressure	3 mm Hg 100 F
Boiling Range	138 to 185 C
% Wt HAPS	0.64
% Vol Exempt	0.00
% Wt Exempt	0.00
% Wt Water	0.00
Specific Gravity (SG)	0.986
Formula Lb / Gal	8.23
% Wt Solids	67.59
% Vol Solids	63.32
Lb VOC/Gal less water	2.67
Grams VOC/Liter (EU)	319.69

## Section 10 - Stability and Reactivity

### Stability:

UNSTABLE

**Components of this product are incompatible with the following materials:**

Strong oxidizing agents

**This product is likely to exhibit the following combustion products:**

Carbon dioxide

Carbon monoxide

Oxides of carbon

Ammonia gas at high temperatures

Hazardous polymerization will not occur.

## Section 11 - Toxicological Information

Aspartic ester

LC 50: Acute inhalation: .4,224 mg/l, aerosol, 4 h (rat)

LD 50: Acute oral: >2,000 mg/kg (rat); Acute dermal: >2,000 mg/kg (rat)

## Section 12 - Ecological Information

This product has not been tested for environmental effects.

## Section 13 - Disposal Considerations

Discharge, treatment or disposal is subject to federal, state, commonwealth, provincial and local laws. Since empty containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind or weld on or near this container.

## Section 14 - Transport Information

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	PAINT, NON-HAZ, NONREGULATED			
ICAO/IATA	PAINT	UN1263	III	3
TDG	PAINT, NON-HAZ, NONREGULATED			

## Section 15 - Regulatory Information

The following chemicals are regulated under California Proposition 65:

95-63-6 Trimethylbenzene 10 to 20 percent

98-82-8 Cumene 0.1 to 1.0 percent

The following components are listed on the TSCA Inventory:

95-63-6 Trimethylbenzene 10 - 20%

The following components are SARA 311/312 hazards:

64742-95-6 Solvent 100 Aromatic Hydrocarbon 20 - 30%

95-63-6 Trimethylbenzene 10 - 20%

TSN120 Aspartic ester 60 - 70%

## Section 16 - Other Information

Material Safety Data Sheets (MSDS) are available free of charge for every product that is manufactured. Before using any paint product, we strongly recommend that you read and follow the precautions listed on the MSDS.

This supersedes all previous publications. Always consult your representative for the latest product information and recommendations.

The information presented herein has been compiled from sources considered to be dependable and accurate to the best of the seller's knowledge. However, seller makes no warranty whatsoever, expressed, implied or of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof. Seller assumes no responsibility for injury to buyer or third party or any damage to property. Buyer assumes all such risks.

# Material Safety Data Sheet

Revision 1  
Prepared 2013-07-07

## Section 1 - Product and Company Information

Product Name: Spartaflex 72% Solids Part B

Product Code: Kit: 100 or 102 or 106

Manufacturer: HP Spartacote, Inc. USA  
810 Brickyard Circle #1  
Golden, CO 80403

In Case of Emergency: CHEMTREC 800-424-9300

## Section 2 - Composition Information on Ingredients

Chemical Name / CAS No	OSHA Exposure Limits	ACGIH Exposure Limits	Other Exposure Limits
Hexamethylene Diisocyanate Homopolymer 28182-81-2 70 to 80%			TWA 0.5 mg/m <sup>3</sup> STEL 1.00 mg/m <sup>3</sup> (15 min)
Solvent 100 Aromatic Hydrocarbon 64742-95-6 10 to 20%	500 ppm TWA OSHA PEL 100 ppm TWA OSHA VPEL	100 ppm TWA ACGIH TLV	
Trimethylbenzene 95-63-6 5 to 10%	There is no OSHA PEL.	NIOSH, HSE, and ACGIH have adopted or recommend a TWA values (for trimethyl benzenes as a class) of 25 ppm (125 mg/m <sup>3</sup> ) and the HSE STEL value is 35 ppm (170 mg/m <sup>3</sup> ).	Several states have set guidelines or standard for Trimethyl benzenes in ambient air ranging from 1.25 – 1.70 mg/m <sup>3</sup> (North Dakota) to 2.1 mg/m <sup>3</sup> (Virginia) to 2.5 mg/m <sup>3</sup> (Connecticut) to 2.976 mg/m <sup>3</sup> (Nevada).

## Section 3 - Hazards Identification

WARNING!

CAUSES EYE AND SKIN IRRITATION. MAY CAUSE ALLERGIC SKIN REACTION. MAY CAUSE RESPIRATORY TRACT IRRITATION. HEATED MATERIAL CAN CAUSE THERMAL BURNS.

HMIS Rating: 2\* - 2 1

Primary Routes of Entry:

Inhalation      Skin Contact      Eye Contact      Ingestion

Target Organs:

Blood   Eyes      Liver      Lungs      Nervous System      Skin

- Inhalation:** Slightly irritating to the respiratory system.
- Ingestion:** Not expected to be harmful under normal conditions of use.
- Skin:** Irritating to skin. May cause sensitization by skin contact. Heated material can cause thermal burns.
- Eyes:** Irritating to eyes. Heated material can cause thermal burns.

**Effects of Overexposure, Spartaflex 72% Solids Part B:**

**Short Term Exposure** Trimethyl benzene can affect you when breathed in. Irritates the eyes, skin, and respiratory tract. Exposure can cause you to feel dizzy, lightheaded, and to pass out. Symptoms of exposure can also include headache, drowsiness, fatigue, dizziness, nausea, incoordination, vomiting, nervousness, tenseness, confusion. Liquid deposition in lungs causes bronchitis or chemical pneumonitis.

**Inhalation** Short Term Exposure (Acute)Diisocyanate or polyisocyanate vapors or mist at concentrations above the exposure limits or guidelines can irritate (burning sensation) the mucous membranes in the respiratory tract (nose, throat, lungs) with symptoms of runny nose, sore throat, coughing, chest discomfort, shortness of breath and reduced lung function (breathing difficulty). Persons with a preexisting, nonspecific bronchial hyperreactivity can respond to concentrations below the exposure limits or guidelines with similar symptoms as well as asthma attack or asthma-like symptoms. Exposure well above the exposure limits or guidelines may lead to bronchitis, bronchial spasm and pulmonary edema (fluid in lungs). Chemical or hypersensitivity pneumonitis, with flu-like symptoms (e.g. fever, chills), has also been reported. These symptoms can be delayed up to several hours after exposure. These effects are usually reversible.Long Term Exposure (Chronic)As a result of previous repeated overexposures or a single large dose, certain individuals may develop sensitization to diisocyanates or polyisocyanates (asthma or asthma-like symptoms) that may cause them to react to a later exposure to iisocyanates or polyisocyanates at levels well below the exposure limits or guidelines. These symptoms, which can include chest tightness, wheezing, cough, shortness of breath or asthmatic attack, could be delayed up to several hours after exposure. Extreme asthmatic reactions can be life threatening. Similar to many non-specific asthmatic responses, there are reports that once sensitized an individual can experience these symptoms upon exposure to dust, cold air, or other irritants. This increased lung sensitivity can persist for weeks and in severe cases for several years. Sensitization can be permanent. Chronic overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

**Long Term Exposure** Repeated exposures can cause headaches, tiredness, and a feeling of nervous tension. Can affect the blood cells and the blood's clotting ability; hypochromic anemia. Delayed or chronic health hazard is possible asthmatic bronchitis with coughing and/or shortness of breath. The use of alcoholic beverages enhances the effect. May cause liver damage.

- Carcinogenicity:** No known significant effects or critical hazards.
- Chronic effects:** No known significant effects or critical hazards.

**Section 4 - First Aid Measures**

- Inhalation:** Remove source of contamination or move victim to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. Obtain medical advice if symptoms persist.
- Eyes:** Immediately flush the contaminated eye(s) with lukewarm, gently flowing water for 15-20 minutes, while holding the eyelid(s) open. Take care not to rinse contaminated water into the unaffected eye or onto the face. Immediately obtain medical attention.

**Skin:** Remove contaminated clothing, shoes and leather goods. Quickly and gently blot or brush away excess chemical. Immediately wash with lukewarm, gently flowing water and non-abrasive soap for 15-20 minutes. Completely decontaminate clothing, shoes and leather goods before reuse or discard.

**Ingestion:** Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. DO NOT INDUCE VOMITING. Have victim drink 60 to 240 ml (2 to 8 oz.) of water. If vomiting occurs naturally, have victim rinse mouth with water again. Obtain medical attention.

**Notes to physician:** No specific treatment. Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.

## Section 5 - Firefighting Measures

Flash Point: 43 C (109 F)

LEL: 0.9 %

UEL: 6.4 %

**Extinguishing Media:** Use dry chemical, foam or fog.

**Unusual Fire and Explosion Hazards:** Isolate from heat, electrical equipment, sparks and opened flame. In a fire or if heated, a pressure increase will occur and the container may burst. Toxic gases may be released during fire.

**Hazardous Combustion Products:** See Section 10 for a list of hazardous decomposition products for this material.

**Fire Fighting:** If evacuation of personnel is necessary, evacuate to an upwind area. Decontaminate personnel and equipment with water wash-down after fire and smoke exposure.

## Section 6 - Accidental Release Measures

**Spill and Leak Procedures:** Ensure cleanup personnel wear all appropriate Personal Protective Equipment (PPE), including respiratory protection.

**Small Spills:** Use an absorbent like sawdust for aqueous, waterborne or solvent-borne coatings. Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Label the waste containers. Dispose of the waste in compliance with all federal, state, regional and local regulations.

**Large Spills:** Prevent this material from entering sewers and watercourses by diking or impounding the spilled material. Advise authorities if the product has entered or may enter sewers, watercourses or extensive land areas. Use an absorbent like sawdust for aqueous, waterborne or solvent-borne coatings. Collect the saturated sorbent and transfer it into a covered container. Steel containers are acceptable for all wastes except wastes which contain acid. Use suitable plastic containers for acid-bearing wastes. Label the waste container. Dispose of the waste in compliance with all federal, state, regional and local regulations.

## Section 7 - Handling and Storage

**Handling:** Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Persons with history of skin sensitization problems should not be employed in any process in which this product is used. Wear appropriate respirator when ventilation is inadequate. Do not reuse containers.

**Storage:** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready to use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. Note: the resin may be handled, shipped and stored at elevated temperature in bulk.

## Section 8 - Exposure Controls / Personal Protection

**Engineering Controls:** Use only with adequate ventilation. If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

**Ventilation:** Use process enclosures, local exhaust, ventilation or other engineering controls to maintain airborne exposure levels below recommended exposure limits. Controls should be sufficient so that applicable occupational exposure limits are not exceeded.



**Respiratory Protection:** If engineering controls do not maintain airborne concentrations below recommended exposure limits, an approved respirator must be worn. If respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial or local laws and regulations.

**Eye Protection:** Wear safety glasses, glasses with side shields or goggles.

**Skin and Body Protection:** Wear chemical resistant, impervious gloves and protective clothing appropriate for the risk of exposure.

## Section 9 - Physical and Chemical Properties

This product typically exhibits the following properties under normal conditions:

Appearance	<b>Viscous liquid dispersion</b>
Odor	
Physical State	Liquid
Vapor Density	3.99
Vapor Pressure	11 mm Hg 100 F
Boiling Point	138 C
% Wt HAPS	0.59
% Vol Exempt	0.00
% Wt Exempt	0.00
% Wt Water	0.00
Specific Gravity (SG)	1.045
Formula Lb / Gal	8.72
% Wt Solids	70.59
% Vol Solids	64.75
Lb VOC/Gal less water	2.56
Grams VOC/Liter (EU)	307.21

## Section 10 - Stability and Reactivity

### Stability:

UNSTABLE

**Components of this product are incompatible with the following materials:**

Water  
Strong bases  
Copper  
Strong oxidizing agents

**This product is likely to exhibit the following combustion products:**

Hydrogen cyanide  
Isocyanate  
Amines  
Carbon dioxide  
Carbon monoxide  
Oxides of nitrogen  
Dense black smoke

Hazardous polymerization will not occur.

## Section 11 - Toxicological Information

Hexamethylene Diisocyanate Homopolymer

LD 50: Acute oral: >5,000 mg/kg (rat)

## Section 12 - Ecological Information

This product has not been tested for environmental effects.

## Section 13 - Disposal Considerations

Discharge, treatment or disposal is subject to federal, state, commonwealth, provincial and local laws. Since empty containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on ignition; do not cut, drill, grind or weld on or near this container.

## Section 14 - Transport Information

<u>Agency</u>	<u>Proper Shipping Name</u>	<u>UN Number</u>	<u>Packing Group</u>	<u>Hazard Class</u>
DOT	PAINT, NON-HAZ, NONREGULATED			
ICAO/IATA	PAINT	UN1263	III	3
TDG	PAINT, NON-HAZ, NONREGULATED			

## Section 15 - Regulatory Information

The following chemicals are regulated under California Proposition 65:

95-63-6 Trimethylbenzene 5 to 10 percent  
822-06-0 Hexamethylene Diisocyanate 0.1 to 1.0 percent  
98-82-8 Cumene 0.1 to 1.0 percent

The following components are listed on the TSCA Inventory:

95-63-6 Trimethylbenzene 5 - 10%

The following components are SARA 311/312 hazards:

28182-81-2 Hexamethylene Diisocyanate Homopolymer 70 - 80%  
64742-95-6 Solvent 100 Aromatic Hydrocarbon 10 - 20%  
95-63-6 Trimethylbenzene 5 - 10%

## Section 16 - Other Information

Material Safety Data Sheets (MSDS) are available free of charge for every product that is manufactured. Before using any paint product, we strongly recommend that you read and follow the precautions listed on the MSDS.

This supersedes all previous publications. Always consult your representative for the latest product information and recommendations.

The information presented herein has been compiled from sources considered to be dependable and accurate to the best of the seller's knowledge. However, seller makes no warranty whatsoever, expressed, implied or of merchantability regarding the accuracy of such data or the results to be obtained from the use thereof. Seller assumes no responsibility for injury to buyer or third party or any damage to property. Buyer assumes all such risks.