Material Safety Data Sheet

Revision 1
Prepared 2011-05-10

Section 1 - Product and Company Information

Product Name: HP Surface Build SL™ Part A

Product Code: SL 1000 A

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
Aspartic ester TSN120 70 to 80%			No applicable information was found concerning any adverse chronic health effects from overexposure to this product.
Cyclohexyldiamino ethylesters in organic solvent TSN1521 20 to 30%			
n-Butyl acetate 123-86-4 1 to 5%	150 ppm TWA8 710 mg/m3 TWA8	150 ppm TWA8 200 ppm STEL	No information available

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.

Health	2*
Flammability	3
Physical Hazard	0
Personal Protection	X

HMIS Rating

Primary Routes of Entry:

Inhalation **Skin Contact** **Eye Contact** **Ingestion**

Target Organs:

Eyes **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, Unifloor i2 100% Flooring Part A:

Long Term Exposure	n-Butyl acetate may cause skin allergy. n-Butyl acetate has been shown to damage the developing fetus in animals. Prolonged and repeated exposure to butyl acetates can cause defatting, drying and cracking of the skin. Although many solvents and petroleum based products cause lung, brain and nerve damage, these chemicals have not been adequately evaluated to determine these effects.
Short Term Exposure	The substance irritates the eyes, skin, and respiratory tract. High exposures, above the occupational exposure levels, can cause weakness, headache, and drowsiness and may cause unconsciousness.

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: 52 C (126 F)
LEL: 1.2 %
UEL: 7.6 %

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

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 is 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 section10) 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	**Viscous liquid dispersion**
Odor	
Physical State	Liquid
Vapor Density	4.12
Vapor Pressure	3 @ 25C
Boiling Range	126 to 185 C
% Wt HAPS	0.00
% Vol Exempt	0.00
% Wt Exempt	0.00
% Wt Water	0.00
Specific Gravity (SG)	1.052
Formula Lb / Gal	8.78
% Wt Solids	99.61
% Vol Solids	99.54
Lb VOC/Gal less water	0.03
Grams VOC/Liter (EU)	4.07

Section 10 - Stability and Reactivity

Stability:
Stable

Components of this product are incompatible with the following materials:

Strong oxidizing agents
Acids
Nitric acid
Sodium hydroxide
Alkali metal hydroxides

This product is likely to exhibit the following combustion products:

Carbon dioxide
Carbon monoxide
Oxides of nitrogen
Dense black smoke
Isocyanic acid
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)

Cyclohexyldiamino ethylesters in organic solvent
LD 50: Acute oral: 1,780 mg/kg (rat)

n-Butyl acetate
LC 50: Rat: 4 hours = 2000 ppm
LD 50: >14500 mg/kg

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

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	PAINT, NON-HAZ, NONREGLUATED			
ICAO/IATA	PAINT, NON-HAZ, NONREGULATED			
TDG	PAINT, NON-HAZ, NONREGULATED			

Section 15 - Regulatory Information

The following chemicals are regulated under California Proposition 65:
123-86-4 n-Butyl acetate 1 to 5 percent
8052-41-3 Stoddard Solvent 0.1 to 1.0 percent

The following components are listed on the TSCA Inventory:
123-86-4n-Butyl acetate 1.0 - 5%

The following components are SARA 311/312 hazards:

TSN1521	Cyclohexyldiamino ethylesters in organic solvent	20 - 30%
123-86-4	n-Butyl acetate	1.0 - 5%
TSN120	Aspartic ester	70 - 80%

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 2011-05-10

Section 1 - Product and Company Information

Product Name: HP Surface Build™ Part B Activator

Product Code: SL 1000 B

Manufacturer:
HP Spartacote, Inc
810 Brickyard Circle #1
Golden, CO 80403 Phone: 866-966-1329

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 80 to 90%			TWA 0.5 mg/m3 STEL 1.00 mg/m3 (15 min)
1,3-Diocolan-2-one, 4-methly 108-32-7 1 to 5%			

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.

Primary Routes of Entry:

Inhalation **Skin Contact** **Eye Contact** **Ingestion**

Target Organs:

Lungs **Skin**

Health	**2***
Flammability	**1**
Physical Hazard	**1**
Personal Protection	**X**

HMIS Rating

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, Unifloor i2 100% Flooring Activator:

Skin: May cause

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

Effects of Overexposure, Unifloor i2 100% Flooring Activator:

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.

Carcinogenicity: No known significant effects or critical hazards.

Chronic effects: Overexposure to diisocyanates has also been reported to cause lung damage (including fibrosis, decrease in lung function) that may be permanent.

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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: 160 C (320 F)
LEL: N/A
UEL: N/A

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 is 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 section10) 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 respirators are used, a program should be instituted to assure compliance with applicable federal, state, commonwealth, provincial or local laws and regulations. NON-SPRAY OPERATIONS: A. During non-spray operations such as mixing, batch-making, brush or roller application, etc., at elevated temperatures (for example, heating of material or application to a hot substrate), it is possible to be exposed to airborne isocyanate vapors. Therefore, when the coatings system will be applied in a non-spray manner, a supplied-air (either positive pressure or continuous flow-type) respirator is mandatory when ONE OR MORE of the following conditions exists: - the airborne isocyanate concentrations are not known; or - the airborne isocyanate monomer concentrations exceed 0.05 ppm averaged over eight (8) hours (10 times the 8 hour TWA exposure limit); or - the airborne polyisocyanate (polymeric, oligomeric) concentrations exceed 5 mg/m3 averaged over 8 hours or 10 mg/m3 averaged over 15 minutes (10 times the 8 hour TWA or the 15 minute STEL exposure limits); or - operations are performed in a confined space (See OSHA Confined Space Standard, 29 CFR 1910.146). A properly fitted air-purifying (combination organic vapor and particulate) respirator, proven by test to be effective in isocyanate-containing paint environments, and used in accordance with all recommendations made by the manufacturer, can be used when ALL of the following conditions are met: -the airborne concentrations of the isocyanate monomer are below 0.05 ppm averaged over eight (8) hours (10 times the 8 hour TWA exposure limit); and - the airborne polyisocyanate (polymeric, oligomeric) concentrations are known to be below 5 mg/m3 averaged over eight (8) hours or 10 mg/m3 averaged over 15 minutes (10 times the 8 hour TWA or the 15 minute STEL exposure limits) and - a NIOSH-certified End of Service Life Indicator or a change schedule based upon objective information or data is used to ensure that cartridges are replaced before the end of their service life. In addition, prefilters should be changed whenever breathing resistance increases due to particulate buildup.**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	**Viscous liquid dispersion**
Odor	
Physical State	Liquid

Vapor Pressure	0 @ 20c
Boiling Point	241 C
% Wt HAPS	0.00
% Vol Exempt	18.58
% Wt Exempt	17.12
% Wt Water	0.00
Specific Gravity (SG)	1.115
Formula Lb / Gal	9.31
% Wt Solids	82.88
% Vol Solids	81.42
Lb VOC/Gal less water	0.00
Grams VOC/Liter (EU)	0.00

Section 10 - Stability and Reactivity

Stability:

Stable

Components of this product are incompatible with the following materials:

Strong oxidizing agents
Water
Strong bases
Copper

This product is likely to exhibit the following combustion products:

Carbon monoxide
Carbon dioxide
Hydrogen cyanide
Isocyanate
Amines
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

Agency	Proper Shipping Name	UN Number	Packing Group	Hazard Class
DOT	PAINT, NON-HAZ, NONREGLUATED			
ICAO/IATA	PAINT, NON-HAZ, NONREGULATED			
TDG	PAINT, NON-HAZ, NONREGULATED			

Section 15 - Regulatory Information

The following chemicals are regulated under California Proposition 65:
822-06-0 Hexamethylene Diisocyanate 0.1 to 1.0 percent

The following components are listed on the TSCA Inventory:

28182-81-2 Hexamethylene Diisocyanate Homopolymer 80 - 90%

The following components are SARA 311/312 hazards:
28182-81-2 Hexamethylene Diisocyanate Homopolymer 80 - 90%

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.