

## SECTION ONE – PRODUCT IDENTIFICATION

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PRODUCT NAME: BioSpan Pro-Tec<sup>™</sup> Surface Coating

DESCRIPTION: Protective Surface Coating for most surfaces (porous and non-porous), including wood

SYNONYMS: Surface Seal, Protective Surface Coating

SDS Pro-TEC #01

GENERAL PRODUCT USE: For treating and protecting porous and non-porous surfaces

APPEARANCE AND ODOR: Pale yellow, clear to slightly hazy, slight orange/citrus fragrance

SUPPLIERS NAME: BIOSPAN TECHNOLOGIES, INC.

6540 MEYER DRIVE, WASHINGTON, MISSOURI 63090

SUPPLIERS PHONE NUMBER: (636) 583-7974

TRANSPORTATION EMERGENCY PHONE NUMBER: CHEMTEC NUMBER (800) 262-8200

## SECTION TWO – HAZARDS IDENTIFICATION

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### Hazard Classification

This material is hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29CFR 1910.1200.

Flammable liquids – Category 3

Label Elements: Hazard pictograms



Signal Word: WARNING!

### Hazards

Flammable liquid and vapor.

### Precautionary statements:

#### Prevention

Keep away from heat/sparks/open flames/hot surfaces. No smoking.

Keep container tightly closed.

Ground/bond container and receiving equipment.

Use explosion-proof electrical/ventilating/lighting/equipment.

Use only non-sparking tools.

Take precautionary measures against static discharge.

Wear protective gloves/ eye protection/face protection.

### Response

BioSpan Technologies, Inc.

6540 Meyer Drive Washington, Missouri 63090

Tel (636) 583-7974 Fax (636) 583-1773

P.O Box 4222 Ballwin, MO 63022

If ON SKIN (or Hair): take off immediately all contaminated clothing. Rinse skin with water/shower.  
In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.

**Storage**

Store in a well-ventilated place. Keep cool.

**Disposal**

Dispose of contents/container to an approved waste disposal plant.

## SECTION THREE – COMPOSITION / INFORMATION ON INGREDIENTS

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<u>CHEMICAL NAME:</u>	<u>CASRN</u>	<u>Concentration</u>
Propylene glycol monomethyl ether acetate	108-65-6	} Approx. 90%
Mehtoxy-1-propanol acetate	70657-70-4	

## SECTION FOUR – FIRST AID MEASURES

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**Description of First Aid measures**

General advice: if potential for exposure exists refer to Section 8 for specific personal protective equipment. If effects occur, consult a physician.

Inhalation: Move person to fresh air

Skin Contact: Wash off with plenty of water

Eye Contact: Flush eyes thoroughly with water for several minutes. Remove contact lenses after the initial 1-2 minutes and continue flushing for several additional minutes.

Ingestion: if swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

Most important symptoms and effects, both acute and delayed: Aside from the information found under Description of First Aid Measures (above) and Indication of immediate medical attention and special treatment needed (below), any additional important symptoms and effects are described in Section 11: Toxicology Information.

**Indication of any immediate medical attention and special treatment needed**

Notes to physician: No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

## SECTION FIVE – FIREFIGHTING MEASURES

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Suitable extinguishing media: Water fog or fine spray. Dry chemical fire extinguishers. Carbon dioxide fire extinguishers. Foam. Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective.

**Special hazards arising from the substance or mixture**

Hazardous combustion products; during a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: carbon monoxide. Carbon dioxide.

Unusual fire or explosion hazards: violent steam generation or eruption may occur upon application of direct water stream to hot liquids. Vapors are heavier than air and may travel a long distance and accumulate in low lying areas. Ignition and/or flash back may occur.

**Advice for firefighters**

Fire Fighting Procedures: keep people away. Isolate fire and deny unnecessary entrance. Stay upwind. Keep out of low areas where gases (fumes) can accumulate. Burning liquids may be extinguished by dilution with water. Do not use direct water stream. May spread fire. Eliminate ignition sources. Burning liquids may be moved by flushing with water to protect personnel and minimize property damage.

Special protective equipment for firefighters: wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire-fighting clothing (includes fire-fighting helmet, coat, trousers, boots, and gloves). If protective equipment is not available or not used, fight fire from a protected location or safe distance.

## SECTION SIX – ACCIDENTAL RELEASE MEASURES

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Personal precautions, protective equipment and emergency procedures: Eliminate all sources of ignition in vicinity of spill or released vapor to avoid fire or explosion. Vapor explosion hazard. Keep out of sewers. No smoking in area. Isolate area. Keep unnecessary and unprotected personnel from entering the area. Keep personnel out of low areas. Refer to section 7, handling, for additional precautionary measures. Use appropriate safety equipment.

Environmental precautions: prevent from enter into soil, ditches, sewers, waterways and/or groundwater.

Methods and materials for containment and cleaning up: small spills: absorb with materials such as: sand, Vermiculite. Collect in suitable and properly labeled containers. Large spills: contain spilled material if possible. Pump with explosion-proof equipment. If available, use foam to smother or suppress. Pump into suitable properly labeled containers.

## SECTION SEVEN – HANDLING AND STORAGE

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Precautions for safe handling: avoid contact with eyes. Wash thoroughly after handling. Keep away from heat/sparks/and flame. No smoking, open flames or sources of ignition in handling and storage area. Vapors are heavier than air and may travel along distance and accumulate in low lying areas. Ignition and/or flash back may occur. Electrically ground and bond all equipment. Use of non-sparking or explosion-proof equipment may be necessary, depending upon the type of operation. Containers, even those that have been emptied, can contain vapors. Do not cut, drill, grind, weld, or perform similar operations on or near empty containers. Spills of these organic materials on hot fibrous insulations may lead to lowering of the auto-ignition temperatures possible resulting in spontaneous combustion.

This product is a poor conductor of electricity and can become electrostatically charged, even in bonded or grounded equipment. If sufficient charge is accumulated, ignition of flammable mixtures can occur. Handling operations that can promote accumulation of static charges include but are not limited to mixing, filtering, pumping at high flow rates, splash filling, creating mists or sprays, tank and container filling, tank cleaning, sampling, gauging, switch loading, vacuum truck operations.

Conditions for safe storage: store away from direct sunlight. Minimize sources of ignition, such as static build-up, heat, spark or flame. Store in the following material(s): Carbon steel. Stainless steel. Phenolic lined steel drums. Do not store in: aluminum, copper, galvanized iron or galvanized steel. Storage period in steel drums for up to 24 months, or in bulk for up to 6 months.

## SECTION EIGHT – EXPOSURE CONTROLS / PERSONAL PROTECTION

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Engineering controls: use local exhaust ventilation, or other engineering controls to maintain airborne levels below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Eye/face: Use chemical goggles.

Skin/Hand: use gloves chemically resistant to this material when prolonged or frequently repeated contact could occur. Examples of preferred glove barrier materials include: butyl rubber, Polyethylene, chlorinated polyethylene, ethyl vinyl alcohol laminate. Examples of acceptable glove barrier materials include: Viton, Natural rubber ("laytex"), Polyvinyl chloride, nitrile/butadiene rubber.

NOTICE: the selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Other protection: When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as face shield, booth, apron, or full-body suit will depend on the task.

Respiratory protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been. Experience, or where indicated by your risk assessment process.

## SECTION NINE – PHYSICAL AND CHEMICAL PROPERTIES

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BOILING POINT: 160°C (760 mmHg)  
VAPOR DENSITY: 4.6 (air = 1)  
PERCENT VOLATILE (BY WEIGHT): N / A  
VAPOR PRESSURE: 2.66 mmHg @ 20° C  
SOLUBILITY IN WATER: 19.8%  
RELATIVE DENSITY: 0.964 at 25°C (water = 1)  
AUTO IGNITION TEMPERATURE: 333°C  
pH: N / A  
FLASH POINT: 145°F TAG CLOSED CUP  
LOWER EXPLOSION LIMIT %: 1.5% vol  
UPPER EXPLOSION LIMIT: 7.0% vol  
DYNAMIC VISCOSITY: 1.1 mPa.s at 25°C  
KINEMATIC VISCOSITY: 1.23 mm<sup>2</sup>/s at 20°C  
LIQUID DENSITY: 0.967 g/cm<sup>3</sup> at 20°C  
MOLECULAR WEIGHT: 132.2 g/mol  
EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL OR UNIVERSAL-TYPE FOAM  
PRODUCTS: Burning of material may release carbon dioxide, carbon monoxide

## SECTION TEN – STABILITY AND REACTIVITY

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Reactivity: No data available

Chemical Stability: Stable under recommended storage conditions.

Possibility of hazardous reactions: Polymerization will not occur

Conditions to avoid: Product can oxidize at elevated temperatures. Avoid static discharge. Flammable vapors can be released at elevated temperatures.

Incompatible materials: avoid contact with oxidizing materials. Avoid contact with strong acids, strong oxidizers.

Hazardous decomposition products: dependent on temperature, air supply, and presence of other materials

## SECTION ELEVEN – TOXICOLOGICAL INFORMATION

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Acute oral toxicity: Very low toxicity if swallowed. Harmful effects not anticipated from swallowing small amounts. Observations in animals: lethargy

Acute dermal toxicity: prolonged skin contact with very large amounts may cause dizziness or drowsiness.

Acute inhalation toxicity: No adverse effects are anticipated from single exposure to vapor.

Skin corrosion/irritation: prolonged contact is essentially nonirritating to skin. Repeated contact may cause skin irritation with local redness.

Serious eye damage/eye irritation: may cause pain disproportionate to the level of irritation to eye tissues. May cause slight eye irritation. May cause slight corneal injury.

Sensitization: did not cause allergic skin reactions when tested in guinea pigs.

Specific Target Organ Systemic Toxicity (Single exposure): Available data are inadequate to determine single exposure specific target organ toxicity.

Specific Target Organ Systemic Toxicity (Repeated exposure): in animals, effects have been reported on the following organs: kidney, liver, nasal tissue.

Carcinogenicity: similar materials did not cause cancer in laboratory animals.

Teratogenicity: did not cause birth defects or other effects in the fetus even at doses which caused toxic effects in the mother.

Reproductive toxicity: in animals, did not interfere with reproduction. Did not interfere with fertility.

Mutagenicity: in vitro genetic toxicity studies were negative.

Aspiration hazard: not likely to be an aspiration hazard.

## SECTION TWELVE – ECOLOGICAL INFORMATION

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General: Material is not classified as dangerous to aquatic organisms (LC50/EC50/IC50/LL50/EL50 greater than 100 mg/L in most sensitive species)

Toxicity: Acute toxicity to fish: Material is practically non-toxic to aquatic organisms on an acute basis (LC50/EC50/EL50/LL50 > 100 mg/L in the most sensitive species tested.)

LC50, *Oncorhynchus mykiss* (rainbow trout), 96-hour, 134 mg/l.

Acute toxicity to aquatic invertebrates  
EC50, Daphnia magna (water flea), 48-hour, 408 mg/l  
Acute toxicity to algae/aquatic plants  
ErC50, Pseudokirchneriella sbcapitata (microalgae), static test, 96 hour > 1,000 mg/l, OECD

Persistence and degradability  
Biodegradability: material is readily biodegradable. Passes OECD tests for ready biodegradability. Material is ultimately biodegradable (reaches > 70% mineralization in OECD tests for inherent biodegradability)  
10-day window: pass  
Biodegradation: 83%  
Exposure time 28 d  
Method: OECD test guideline 301F or equivalent  
Biodegradation: 100%  
Exposure time: 28 d  
Method: OECD test guideline 302B or equivalent

Theoretical oxygen demand: 1.82 mg/mg

Bio accumulative potential:  
Bioaccumulation: potential is low (BCF < 100 or Log Pow < 3)  
Partition coefficient: n-octanol/water (log Pow): 1.2 measured

Mobility in soil: potential for mobility in soil is very high (Koc between 0 and 50)  
Partition coefficient: 1.7 estimated

## SECTION THIRTEEN – DISPOSAL CONSIDERATIONS

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DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER.

All disposal practices must be in compliance with all federal, state/provincial and local laws and regulations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator.

AS YOUR SUPPLIER, WE HAVE NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN SDS SECTION: Composition information.

FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: incinerator or other thermal destruction device.

## SECTION FOURTEEN – TRANSPORT INFORMATION

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DOT: Proper shipping name: esters, n.o.s. (Propylene glycol monomethyl ether acetate)  
UN number: UN 3272  
Class: 3  
Packing group: III

Classification for SEA transport (IMO-IMDG):  
Proper shipping name: ESTERS, N.O.S. (Propylene glycol monomethyl ether acetate)  
UN number: UN 3272  
Class: 3  
Packaging group: III  
Marine pollutant: no  
Transport in bulk: Consult IMO regulations before

Classification for AIR transport (IATA/ICAO):  
Proper shipping name: Esters, n.o.s (Propylene glycol monomethyl ether acetate)  
UN Number: UN 3272  
Class 3  
Packaging group: III

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Transportation classifications may vary by container volume and may be influenced by regional or country variations in regulations. Additional transportation system

information can be obtained through an authorized sales or customer service representative. This is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

## SECTION FIFTEEN – REGULATORY INFORMATION

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OSHA: This product is "hazardous" under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910. 1200 Superfund Amendments and Reauthorization Act of 1986 title III (Emergency Planning and Community Right-to-Know Act of 1986) 311 and 312: Fire Hazard, Chronic Health Hazard

Superfund Amendments and Reauthorization Act of 1986 title III (Emergency Planning and Community Right-to-Know Act of 1986) 313: This material does not contain any chemical components with known CAS numbers that exceed the threshold reporting levels established by SARA tile III, 313. Pennsylvania Worker and Community Right-to-Know Act: to the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act 1986): This product contains no listed substances known to the state of California to cause cancer, birth defects or other reproductive harm, at levels which would require warning under this statute.

United States TSCA Inventory (TSCA): all components of this product are in compliance with the inventory listing requirements of the U.S. toxic substances Control Act Chemical Substance Inventory.

## SECTION SIXTEEN – OTHER INFORMATION

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Hazardous ratings (0=minimal, 1=slight, 2=moderate, 3= serious, 4= severe)  
Health =1; Fire = 2; Reactivity = 0

Product Literature: additional information on this product may be obtained by calling your sales or customer service contact.

Each customer or recipient of this SDS should study it carefully and consult appropriate expertise, as necessary, to become aware of and understand the data contained and any hazardous associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's / user's responsibility to ensure that his activities comply with all federal, state/provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's / user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDS, we are not and cannot be responsible for (M)SDS obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

BioSpan Technologies, Inc.  
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