

BioSpan Technologies, Inc.
6540 Meyer Drive Washington, Missouri 63090
PHONE (636) 583 -7974 FAX (636) 583 -1773
P.O Box 4222 Ballwin, MO 63022



MATERIAL SAFETY DATA SHEET

SECTION ONE - PRODUCT DESCRIPTION

PRODUCT NAME: BioSpan RePLAY™ Agricultural Oil seal and Asphalt Pavement Preservation Agent

DATE: 10/10. Rev 05

DESCRIPTION: Non-toxic, environmentally friendly asphalt pavement penetrating seal and preservation agent

SYNONYMS: Asphalt reducing agent

MSDS NUMBER: exp-11-02

GENERAL PRODUCT USE: Used to seal and preserve existing asphalt road surfaces

APPEARANCE AND ODOR: brown to black thin liquid, slight citrus or floral fragrance

SUPPLIERS NAME: BIOSPAN TECHNOLOGIES, INC.

6540 MEYER DRIVE, WASHINGTON, MISSOURI 63090

SUPPLIERS PHONE NUMBER: (636) 583-7974

TRANSPORTATION EMERGENCY PHONE NUMBER: 800-730-8980

DAYTIME, 636-536-0161 NIGHTS/WEEKENDS 314-276-7517

S.A.R.A.

INFORMATION

HAZARDS: FIRE: YES PRESSURE: NO REACTIVITY: NO ACUTE: NO CHRONIC: NO

PHYSICAL DATA: MIXTURE: YES PURE: NO SOLID: NO LIQUID: YES GAS: NO

SECTION TWO - HAZARDOUS INGREDIENTS

APPROXIMATE WEIGHT %

N/A

CHEMICAL NAME

NONE

ALL MATERIALS ARE CLASSIFIED NON-TOXIC

SECTION THREE - PHYSICAL AND CHEMICAL PROPERTY

BOILING POINT: 330°-350°F

VAPOR DENSITY: LIQUID

PERCENT VOLATILE (BY WEIGHT): N/A

VAPOR PRESSURE: 0.91 MM@20°C

SOLUBILITY IN WATER: miscible

SPECIFIC GRAVITY: 0.8935(H₂O = 1.0)

AUTO IGNITION TEMPERATURE: N/A

pH: 5.0-6.0

SECTION FOUR - FIRE AND EXPLOSION DATA

FLASH POINT: 210°F+ TAG CLOSED CUP

LOWER EXPLOSION LIMIT (%): NOT KNOWN

EXTINGUISHING MEDIA: CARBON DIOXIDE, DRY CHEMICAL

OR UNIVERSAL-TYPE FOAM THERMAL DECOMPOSITION

PRODUCTS: Burning of material may release carbon dioxide, carbon monoxide

AUTO IGNITION TEMPERATURE: NONE

UPPER EXPLOSION LIMIT (%): NOT KNOWN

SPECIAL FIRE FIGHTING PROCEDURES: WEAR SELF CONTAINED BREATHING APPARATUS, AND COMPLETE PROTECTIVE CLOTHING

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

SECTION FIVE - HEALTH EFFECTS INFORMATION

PRIMARY ROUTES OF ENTRY

SKIN CONTACT X

EYE CONTACT X

INHALATION X

INGESTION

ODOR THRESHOLDS: None

HEALTH HAZARDS (ACUTE AND CHRONIC): SIGNS AND SYMPTOMS OF OVEREXPOSURE: Eyes -irritation from direct contact.

Prolonged contact with membranes of mouth, esophagus & stomach may cause irritation and dermatitis due to defatting of the skin.

Inhalation - May cause respiratory irritation and coughing. Ingestion -Harmful if swallowed.

CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE: Persons with pre-existing skin disorders may be more susceptible to irritating effects. Persons with pre-existing lung disorders may be more susceptible to irritating effects.

CARCINOGENICITY: None

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The information provided herein is compiled from internal reports and data from professional publications. IT IS FURNISHED WITHOUT WARRANTY OF ANY KIND, EXPRESS OR IMPLIED. It is intended to assist in evaluating the suitability and proper use of the material in manufacturing and in the development and implementation of safety precautions and procedures.



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SYNERGISTIC EFFECTS - None Known

EMERGENCY AND FIRST AID PROCEDURES:

Eyes: Flush eyes with large amounts of running water for at least 15 minutes. If irritation persists, contact a Doctor.

Skin: Wash with large amounts of running water, and soap. Remove contaminated clothing and wash before wearing again.

Ingestion: If swallowed, immediately drink milk or water and contact a Doctor immediately.

Inhalation: Remove from area to fresh air.

CHEMICALS LISTED AS CARCINOGEN BY: (YES OR NO)

| | |
|-----------------------------|----|
| NATIONAL TOXICOLOGY PROGRAM | NO |
| I.A.R.C. MONOGRAPHS | NO |
| OSHA | NO |

SECTION SIX - REACTIVITY INFORMATION

STABILITY: STABLE X
UNSTABLE

CONDITIONS TO AVOID: Avoid heat, open flame

SENSITIVITY TO STATIC DISCHARGE: None

REACTIVITY WITH WATER: None

REACTION DECOMPOSITION PRODUCTS: None

HAZARDOUS POLYMERIZATION

MAY WILL NOT
OCCUR OCCUR X

CONDITIONS TO AVOID

strong alkalis and oxidizing agents

SECTION SEVEN - SPILL AND DISPOSAL INFORMATION

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Floors may become slippery. Use protective equipment stated in Section Eight. Contain liquid spills using a barrier of inert material such as sand or by diking the area. Absorb spilled liquids using inert material. Scoop or shovel absorbed material or spilled solids into containers. Avoid creating a dust during transfer of solids. Wash area with soap and water.

WASTE DISPOSAL METHODS: Incinerate, bury in an approved manner or dispose of in accordance with pertinent federal, state, or local regulations.

SECTION EIGHT - PERSONAL PROTECTION INFORMATION

PROTECTIVE EQUIPMENT: Goggles, impervious or chemical resistant gloves, and impervious clothing to prevent skin contact.

RESPIRATORY PROTECTION: In well-ventilated areas protection is not normally required

Other Protective Equipment: eye wash station and safety shower should be easily accessible

SECTION NINE - STORAGE AND HANDLING

PRECAUTIONS FOR STORAGE AND HANDLING: Store in dry, and well-ventilated area. Keep containers closed. Do not enter storage area unless area is adequately ventilated.

WORK/HYGIENIC PRACTICES: Wash thoroughly after handling. Wash contaminated clothes before reuse. Launder work clothes.

Check protective clothing, particularly impervious gloves, for leaks before use.

SECTION TEN - STABILITY AND REACTIVITY

Conditions to avoid: Excessive temperatures may cause decomposition or oxidation

Materials to Avoid: Avoid contact with strong acids, strong bases and oxidizing agents. May react violently with iodine pentafluoroethylene

Decomposition Products: CO₂ and water

SECTION ELEVEN—TOXICOLOGICAL INFORMATION

Target organs: Eyes and skin

Route) of entry: Eye and skin contact

Acute toxicity LPR-Mus TD_{LD} <10,000 mg/kg/8W-1:ETA.

Chronic toxicity No known chronic indications

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SECTION TWELVE— ECOLOGICAL INFORMATION

Biodegradability: biodegradable

Aquatic toxicity: Marine pollutant. The formulations are immiscible in water. The formulations are known to evaporate quickly and biodegrade and should not cause long-term effects.

Bioaccumulation Potential: Not determined. All materials used in formulations are known to be non-accumulating in the environment.

SECTION THIRTEEN —DISPOSAL CONSIDERATIONS

RCRA hazardous waste— Classified as a RCRA hazardous waste— (Flammability characteristics only)

Disposal methods: Dispose of this material by either incineration or by a licensed waste disposal company. Contaminated absorbent material may be disposed of in an approved landfill. Follow all local, state and Federal disposal regulations.

SECTION FOURTEEN—TRANSPORT INFORMATION

DOT:

Proper shipping name:

Formulated solution containing: Fatty acid esters, Identification Number 144920, UN hazard class N/a< Terpene hydrocarbons, n.o.s., 3, UN 2319, PGIII, Exemptions: chemicals, n.o.l. (NON-REGULATED)- allowable for shipment in non-bulk containers: IATA: terpene hydrocarbons, n.o.s., UN2319, PGIII

SECTION FIFTEEN— REGULATORY INFORMATION

OSHA This product is slightly hazardous under the criteria of the Federal OSHA Hazard Communication Standard 29 CFR 1910.1200: however, thermal decomposition fumes from this product may be hazardous under sections 2 and 3.

CERCLA- SARA CLASSIFICATION(S): Ingredients present in products that may require reporting under Section 312 of SARA title III as defined in 40 CFR 372: EXTREMELY HAZARDOUS SUBSTANCES: NONE

SARA CLASSIFICATION(S): Ingredients present in products that may require reporting under Section 311-312 of SARA title III as defined in 40 CFR 372: fire hazard
SARA CLASSIFICATION(S): Ingredients present in products that may require reporting under Section 313 of SARA title III as defined in 40 CFR 372: Toxic chemicals: NONE

CLEAN AIR ACT, OZONE DEPLETING SUBSTANCES: This product does not contain nor was it manufactured with Class I or Class II ozone depleting substances as defined by the Clean Air Act Amendments of 1990.

SECTION SIXTEEN

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

HMIS RATINGS: Health = 1, Flammability = 1 Reactivity = 0 Personal Protective Equipment = G, eye protection

NFPA: Health =1 , Flammability=1, reactivity=0

EXPOSURE LIMITS: (N.E. = None Established)

PREPARED BY: S.R. Chesky, BioSpan Technologies, Inc.
10/10/rev. 05

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