



SAFETY DATA SHEET

DATE: 11/2024

SECTION ONE – PRODUCT IDENTIFICATION

PRODUCT NAME: BioSpan OTx[®] Crude Oil Thinning Agent

DESCRIPTION: Non-toxic oil and bitumen thinning agent

SYNONYMS: Oil Thinning Agent

SDS OTX #01

GENERAL PRODUCT USE: Thinning agent for petroleum-based heating oils, Crude oil viscosity reduction agent, crude oil solvent

APPEARANCE AND ODOR: Clear color, citrus / solvent odor

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

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 – HAZARDS IDENTIFICATION

NONE

SECTION THREE – COMPOSTION / INFORMATION ON INGREDIENTS

CHEMICAL NAME:

N / A

APPROXIMATE WEIGHT %

NONE

ALL MATERIALS ARE CLASSIFIED NON-TOXIC

SECTION FOUR – FIRST AID MEASURES

PRIMARY ROUTES OF ENTRY

SKIN CONTACT X
INHALATION X

EYE CONTACT X
INGESTION

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.

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

SECTION FIVE – FIREFIGHTING MEASURES

REACTIVITY WITH WATER: NONE

UNUSUAL FIRE AND EXPLOSION HAZARDS: NONE

AUTO IGNITION TEMPERATURE: NONE

UPPER EXPLOSION LIMIT (%): NOT KNOWN

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

SECTION SIX – ACCIDENTAL RELEASE MEASURES

STABILITY: STABLE X
UNSTABLE

SENSITIVITY TO STATIC DISCHARGE: None
REACTION DECOMPOSITION PRODUCTS: None

CONDITIONS TO AVOID: Avoid heat, open flame

REACTIVITY WITH WATER: None

HAZARDOUS POLYMERIZATION

MAY WILL NOT
OCCUR OCCUR X

CONDITIONS TO AVOID

strong alkalis and oxidizing agents

SECTION SEVEN – HANDLING AND STORAGE

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 – EXPOSURE CONTROLS / PERSONAL PROTECTION

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.

VENTILATION TYPE: Typical mechanical or general industrial systems are sufficient for simple mixing.

SECTION NINE – PHYSICAL AND CHEMICAL PROPERTIES

BOILING POINT: 280° – 320° F
VAPOR DENSITY: 4.40
PERCENT VOLATILE (BY WEIGHT): N / A
VAPOR PRESSURE: 1.0 MM @ 20° C
SOLUBILITY IN WATER: immiscible
SPECIFIC GRAVITY: 0.8550 (H₂O = 1.0)
AUTO IGNITION TEMPERATURE: N / A
pH: 5.1 – 5.8
FLASH POINT: 180-195° F+ TAG CLOSED CUP
LOWER EXPLOSION LIMIT %: NOT KNOWN
UPPER 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

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

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.

CERLA-SARA: 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
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 – OTHER INFORMATION

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: BioSpan Technologies, Inc.
11/2024