BIOTROP
Biosolutions for Agriculture

SDS

In compliance with OSHA HCS 29 CFR 1910.1200

SAFETY DATA SHEET

Product: NUTRAVAIL

Revision: 01	Date: 06/29/2026	Pages: 1/8

1 - IDENTIFICATION

Product identifier:	NUTRAVAIL
Other means of identification:	NUTRAVAIL
Recommended use of the chemical and restrictions on use:	Soil amendment.
Manufacturer's name:	BIOTROP LLC
Address:	747 SW 2nd Avenue Suite 395 Gainesville, FL 32601, - United States.
Telephone number:	+1 (352) 574-3424
Emergency phone number:	+1 (352) 574-3424

2 - HAZARD IDENTIFICATION

Classification of the chemical:	Skin Sensitization - Category 1.
Classification system adopted:	OSHA HCS 29 CFR 1910.1200 Globally Harmonized System of Classification and Labeling of Chemicals (GHS), United Nations.
Pictograms:	
Signal word:	WARNING
Hazard statement(s):	May cause an allergic skin reaction.
Precautionary statement(s):	**PREVENTION:** Avoid breathing dust/fume/gas/mist/vapours/spray. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves, protective clothing, eye protection, face protection and hearing protection. **RESPONSE TO EMERGENCY:** If on skin: Wash with plenty of water. Specific treatment. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash it before reuse. **DISPOSITION:** Dispose of contents and container in accordance with local regulations.
Other hazards which do not result in classification:	The product has no other hazards.
Any hazards not otherwise classified that have been identified during the classification process:	Not applicable

SAFETY DATA SHEET

Product: NUTRAVAIL

3 - COMPOSITION/INFORMATION ON INGREDIENTS

MIXTURE NUTRAVAIL

Components contributing to the hazard:

Product identifier	CAS/EC	Concentration range (%)
Industrial secret 1 [1]	NA	1.0 - 5.0

[1] Hazard classification: Skin Sensitization - Category 1B; Serious eye damage/eye irritation - Category 2A; Acute Toxicity - Oral - Category 4; Acute Toxicity - Inhalation - Category 4.
NA: Not applicable.

4 - FIRST-AID MEASURES

Description of necessary measures

Inhalation:	Remove the victim to a ventilated area and keep him/her at rest in a position that is comfortable for breathing. If he/she feels unwell, contact a POISON CENTER or a doctor. Take this document with you.
Skin contact:	Wash exposed skin with sufficient water to remove the product. Remove and isolate contaminated clothing and shoes. In case of skin irritation: Consult a physician. Bring this document.
Eye contact:	Rinse thoroughly with water for several minutes. If you are wearing contact lenses, remove them if this is easy to do and continue rinsing. If eye irritation persists: consult a doctor. Bring this document.
Ingestion:	Rinse the victim's mouth with plenty of water. Never give anything by mouth to an unconscious person. If you feel unwell, contact a TOXICOLOGY INFORMATION CENTER or a doctor. Bring this document with you.
Most important symptoms/effects, acute and delayed:	May cause an allergic skin reaction with pruritus and dermatitis.
Indication of immediate medical attention and special treatment needed, if necessary:	Avoid contact with the product when assisting the victim. If necessary, symptomatic treatment should include, above all, supportive measures such as correction of hydroelectrolytic and metabolic disorders, in addition to respiratory assistance. In case of contact with the skin, do not rub the affected area.

5 - FIRE-FIGHTING MEASURES

Extinguishing media:	Suitable: carbon dioxide (CO_2), alcohol-resistant foam, water mist and powder. Unsuitable: water jet directly.
Specific hazards arising from the chemical:	Combustion of the material or its packaging can form irritating and toxic gases such as carbon monoxide and dioxide. Vapors may be denser than air and tend to collect in low or confined areas, such as manholes and basements. Containers may explode if heated.
Special protective actions for fire-fighters:	Wear positive pressure self-contained breathing apparatus (SCBA) and full protective clothing. Containers and tanks involved in the fire should be cooled with water mist.

6 - ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment, and emergency procedures:	**For non-emergency personnel:** Isolate leak from ignition sources. Keep unauthorized people away from the area. Stop the leak if it can be done without risk. Do not smoke. Do not touch damaged containers or spilled product without wearing appropriate clothing. Avoid exposure to the product and contact with skin, eyes and mucous membranes. Use personal protective equipment as described in section 8. **For emergency responders:** Wear full PPE with safety glasses, safety gloves, suitable protective clothing and closed-toe shoes. In the event of a leak, where exposure is high, it is recommended to

	use an appropriate respiratory protection mask. **Emergency procedures:** Prevent spilled product from reaching waterways and sewage systems. Do not wash packaging in lakes, fountains, rivers and other bodies of water.
Methods and materials for containment and cleaning up:	Paved floor: Use water mist or vapor suppressant foam to reduce vapor dispersion. Use natural or spill containment barriers. Collect spilled product and place in appropriate containers. Adsorb the remaining product with dry sand, earth, vermiculite, or any other inert material. Place the adsorbed product in appropriate containers and remove them to a safe place. Soil: Remove the layers of contaminated soil until you reach uncontaminated soil, collect this product and place it in a sealed and properly identified container. Bodies of water: Immediately stop abstraction for human or animal consumption. If necessary, contact the nearest environmental agency and/or the company's emergency center. For final disposal, proceed in accordance with Section 13 of this document.

7 - HANDLING AND STORAGE

Precautions for safe handling:	Handle in a ventilated area or with a general local ventilation/exhaust system. Avoid formation of vapors and mists. Avoid contact of the product with the skin, eyes and mucous membranes, as the effects may not be felt immediately. When opening the packaging, do so to avoid spills. Do not unclog nozzles, orifices and valves with your mouth. Do not apply the product in the presence of wind or in the hottest hours of the day. Do not handle the product without recommended PPE or if it is damaged. Read and follow the instructions for use recommended on the leaflet and label, if available. Apply only the recommended doses. Observe the expiration date. Use personal protective equipment as described in section 8. Do not handle the product without recommended PPE or if it is damaged. Read and follow the instructions for use recommended on the leaflet and label, if available. Wash your hands and face thoroughly after handling and before eating, drinking, smoking or using the bathroom. Do not eat, drink or smoke while handling the product. Remove contaminated clothing and protective equipment before entering eating areas. Wash contaminated clothing and protective items before reuse and separate from household clothing. The product is not expected to present a fire or explosion hazard.
Conditions for safe storage, including any incompatibilities:	Store in a dry, well-ventilated place away from sunlight. Store the product in its original packaging, always closed. Avoid storing the product near sources of ignition and heat. Keep in a suitable place for the type of product. Prevent unauthorized access to the location. Store at 15 to 25 °C (59 to 77 °F). It is not necessary addition of stabilizers and antioxidants to ensure the durability. Packaging compatibilities: Similar to the original packaging.

8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters	
Occupational exposure limit:	No occupational exposure limits are established.
Biological limit:	No biological indicators of exposure are established.
Other limits and values:	No other limits and values are established.
Appropriate engineering controls:	A risk assessment is recommended to define the engineering control measures necessary to eliminate or minimize the risk. These measures help to reduce exposure to the product.

Individual protection measures, such as personal protective equipment (PPE)

Hand protection:	Suitable protective gloves.
Eye protection:	Wide vision protective glasses.
Skin protection:	Apron and safety shoes.
Respiratory protection:	Respiratory protection mask.

9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical state:	Liquid.
Color:	Not available.
Odor:	Not available.
Melting point/freezing point:	Not available.
Boiling point (or initial boiling point or boiling range):	Not available.
Flammability:	Not available.
Lower and upper explosion limit/ flammability limit:	Not available.
Flash point:	Not available.
Auto-ignition temperature:	Not available.
Decomposition temperature:	Not available.
pH:	Not available.
Kinematic viscosity:	Not available.
Solubility:	Water solubility not available.
Partition coeficient n-octanol/water (log value):	Not available.
Vapor pressure:	Not available.
Density and/or relative density:	Not available.
Relative vapor density:	Not available.
Particle characteristics:	Not applicable.
Other information:	Absolute density: 1 g/cm³.

10 - STABILITY AND REACTIVITY

Reactivity:	Reactivity is not to be expected under normal conditions of temperature and pressure.
Chemical stability:	Stable under normal temperature and pressure conditions.
Possibility of hazardous reactions, including those associated with foreseeable emergencies:	There are not known hazardous reactions with the product.
Conditions to avoid:	High temperatures. Contact with incompatible materials.
Incompatible materials:	There are not known incompatible materials with the product.

Hazardous decomposition products:	No dangerous decomposition products are known.

11 - TOXICOLOGICAL INFORMATION

Symptoms related to the physical, chemical and toxicological characteristics:	May cause an allergic skin reaction with pruritus and dermatitis.
Delayed and immediate effects and also chronic effects from short and long-term exposure	
Acute toxicity:	Product not classified as acute toxic. ATEmix Oral: > 5000 mg/kg. ATEmix Dermal: > 5000 mg/kg. ATEmix Dusts and mists (4h): > 5 mg/L.
Skin corrosion/irritation:	It is not expected to cause skin irritation.
Eye damage/irritation:	It is not expected to cause eye irritation.
Respiratory or skin sensitization:	May cause an allergic skin reaction with pruritus and dermatitis. It is not expected to cause respiratory sensitization. The ingredient Benzyl alcohol is classified as a skin sensitizer and contributes to this product classification.
Germ cell mutagenicity:	It is not expected to show mutagenicity in germ cells.
Carcinogenicity:	It is not expected to be carcinogenic.
Reproductive toxicity:	It is not expected to be reproductively toxic.
Specific target organ toxicity (single exposure):	It is not expected to exhibit specific target organ toxicity by single exposure.
Specific target organ toxicity (repeated exposure):	It is not expected to exhibit specific target organ toxicity on repeated exposure.
Aspiration hazard:	It is not expected to present an aspiration hazard.

12 - ECOLOGICAL INFORMATION

Ecotoxicity:	It is not expected to be ecotoxic.
Persistence and degradability:	It is expected that the product presents persistence and it is not considered readily biodegradable.
Bioaccumulative potential:	Presents low bioacumulative potencial in aquatic organisms. Information regarding to: - Industrial secret 1: BCF: 1.4 (calculated) log K_{ow}: 1.05.
Mobility in soil:	Not determined.
Other adverse effects:	No other environmental effects known.

SAFETY DATA SHEET

Product: NUTRAVAIL

13 - DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any contaminated packaging:	Must be disposed of as waste in compliance with local regulations. The treatment and disposal should be evaluated for each specific product. Keep the product remains in its original and properly closed containers. Disposal should be performed as established for the product.

14 - TRANSPORT INFORMATION

International regulations

Road:	DOT - U.S. Department of Transportation.- Code of Federal Regulations.
UN number:	Not classified as hazardous for the road transportation.
Environmental hazards:	The product is not considered dangerous for the environment for land transport.
Sea:	IMO - International Maritime Organization: • IMDG Code - International Maritime Dangerous Goods Code.
UN number:	Not classified as hazardous for water transportation.
Environmental hazards:	It's not considered a marine pollutant for transportation.
Air:	IATA - International Air Transport Association: • DGR - Dangerous Goods Regulation.
UN number:	Not classified as dangerous for air transport.
Environmental hazards:	The product is not considered dangerous for the environment for air transport.
Transport in bulk (according to IMO instruments):	Consult regulations: • International Maritime Organization: MARPOL: Articles, protocols, annexes, unified interpretations of the International Convention for the Prevention of Pollution from Ships, 1973, as modified by the Protocol of 1978 relating thereto, consolidated edition. IMO, London, 2006; • International Maritime Organization: IBC code: International code for the construction and equipment of shipping carrying dangerous chemicals in bulk: With Standards and guidelines relevant to the code. IMO, London, 2007.
Special precautions for user:	Not applicable.

15 - REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question:	Convention concerning Safety in the use of Chemicals at Work (Convention 170) - International Labour Organization, 1990.

SAFETY DATA SHEET

Product: NUTRAVAIL

16 - Other information, including date of preparation or last revision

This document was prepared based on current knowledge about the proper product handling and under normal conditions of use, in accordance with the application specified on the packaging. Any other use of the product involving their combination with other products, and use various forms of those indicated, are the responsibility of the user. Warns that the handling of any chemical substance requires the prior knowledge of its hazards for the user. In the workplace it is for the user company's product promotes training of its collaborators about the possible risks arising from exposure to the chemical.

Change control:

Version	Manufacture date	Changes
01	06/29/2026	Elaboration

Abbreviations:
ACGIH - American Conference of Governmental Industrial Hygienists;
ATEmix - Acute Toxicity Estimate of the mixture;
BCF - Bioconcentration factor;
CAS - Chemical Abstracts Service;
EC - European Community;
EEC - European Economic Community;
EPA - United States Environmental Protection Agency;
IARC - International Agency for Research on Cancer;
K_{ow}- Octanol-water partition coefficient;
NIOSH - National Institute for Occupational Safety and Health;
OSHA - Occupational Safety & Health Administration;
PBT - Persistent, bioaccumulative and toxic;
vPvB - Very Persistent and very Bioaccumulative.

Suppliers:
TOTAL BIOTECNOLOGIA INDÚSTRIA E COMÉRCIO LTDA.
Rua Emílio Romani, 1190 - CIC, CEP: 81460-020 - Curitiba - PR - Brazil.
Phone number: + 55 (41) 3099-7300
Emergency phone number: + 55 (41) 3099-7300
regulatorio@biotrop.com.br

Bibliographic references:
ACGIH - AMERICAN CONFERENCE OF GOVERNMENTAL INDUSTRIALS HYGIENISTS. TLVs® and BEIs®: Based on the Documentation of the Threshold Limit Values (TLVs®) for Chemical Substances and Physical Agents & Biological Exposure Indices (BEIs®). Cincinnati-USA, 2026.

CONCAWE - HAZARD CLASSIFICATION AND LABELLING OF PETROLEUM SUBSTANCES IN THE EUROPEAN ECONOMIC AREA. Available in: <https://www.concawe.eu/>. Access at: Jun. 2026.

ECHA - EUROPEAN CHEMICAL AGENCY. Available in: <http://echa.europa.eu/web/guest>. Access at: Jun. 2026.

EPA - UNITED STATES ENVIRONMENTAL PROTECTION AGENCY. Available in: <https://www.epa.gov/>. Access at: Jun. 2026.

GESTIS - SUBSTANCE DATABASE. Available in: <https://gestis-database.dguv.de/>. Access at: Jun. 2026.

GHS - GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS. 10th rev. ed. New York and Geneva: United Nations, 2023.

HSDB - HAZARDOUS SUBSTANCES DATA BANK. Available in: <http://pubchem.ncbi.nlm.nih.gov/>. Access at: Jun. 2026.

IARC - INTERNATIONAL AGENCY FOR RESEARCH ON CANCER. Available in:

<http://monographs.iarc.fr/ENG/Classification/index.php>. Access at: Jun. 2026.

NIOSH - NATIONAL INSTITUTE OF OCCUPATIONAL AND SAFETY. International Chemical Safety Cards. Available in: <http://www.cdc.gov/niosh/>. Access at: Jun. 2026.

OSHA - OCCUPATIONAL SAFETY & HEALTH ADMINISTRATION. UNITED STATES DEPARTMENT OF LABOUR. < https://www.osha.gov/chemicaldata/search >. Access at: Jun. 2026.

REACH - REGISTRATION, EVALUATION, AUTHORIZATION AND RESTRICTION OF CHEMICALS. Commission Regulation (EC) No 1272/2008 of December 2008 amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorization and Restriction of Chemicals. Available in: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=OJ:L:2008:353:0001:1355:en:PDF>. Access at: Jun. 2026.