

SAFETY DATA SHEET

(SDS)

Material Name: **BioNeat NTS™-1 Asphalt Release Agent** (Ready to Use)
Issue Date: 01/25/2023
MSDS No.: Formula NTS-01

Section 1- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Chemical Name: Colloid
Internal Part Number: NTS-01
Product Use: Asphalt Release Agent
Mfg. Part #: Formula NTS-01
Brand Names: BioNeat NTS™-1
Synonyms: Cleaner, All Purpose Degreaser
Sup. Part #: Not applicable

Manufacturer Information:
BIONEAT INC.
Address: 101 SE 10th Street Fort
Lauderdale, FL 33316 Phone:
(800) 749-2466

Section 2 – HAZARDS IDENTIFICATION

Overview: Product is slightly viscous, clear-amber solution.

Potential Health Effects:

Eyes: This product may cause irritation to the eyes after direct contact.

Skin: Exposure to skin is not likely to result in irritation or redness. There is no level of toxicity associated with the material being absorbed through the skin.

Ingestion: There is no level of toxicity associated with ingestion of this Product. However, ingesting very large amounts may cause minor Gastrointestinal distress such as diarrhea due to emulsification of grease and oil in the digestive tract.

Section 3 – COMPOSITION/INFORMATION ON INGREDIENTS

Component Information/Information on Non-Hazardous Components: All components have been identified and evaluated under the criteria specified in 29 CFR 1910.1200 (Hazard Communication Standard).

Active ingredients:

Bioneat is a proprietary, Nano-technology/Colloidal Micelle
Formula made from Natural resource Ingredients including:

Ingredient	Function	CAS #	Concentration
Aqua(Water)	Diluent	773-218-5	98.3999%
Fatty Acids	Cleaning Agent	61790-12-3	1.45%
Coconut Oil	Plant based cleanser	8001-31-8	0.15%
Sodium Bicarbonate	Stabilizer	144-55-8	0.0001%

Section 4 – FIRST AID MEASURES

Eyes: In case of direct contact with eyes, rinse with water if irritation occurs

Skin: If desired wash after handling; but no level of toxicity is associated with the material being absorbed through the skin.

Ingestion: There is no known level of toxicity associated with ingestion of this product. (See above, Section #3)

Inhalation: There is no level of toxicity associated with the material being inhaled. If desired, remove to fresh air.

Section 5 – FIRE FIGHTING MEASURES

Method Use: Not available
Upper Flammable Limit (UFL): Not applicable
Lower Flammable Limit (LFL): Not applicable
Auto Ignition: Not applicable
Flammability Classification: Non-flammable
Rate of Burning: Not applicable

General Fire Hazards: This product is 83.999% aqueous mixture that will not burn.

Hazardous Combustion Products: Upon decomposition this product emits carbon dioxide.

Extinguishing Media: Use extinguishing media appropriate to surrounding fire conditions.

NFPA Ratings: Health: 0 Fire: 0 Reactivity: 0 Other: 0

HMIS Ratings: Health: 0 Fire: 0 Reactivity: 0 Other: 0

Personal Protection: None

Section 6 - ACCIDENTAL RELEASE MEASURES

Containment Procedures: None necessary.

Clean-Up Procedures: Rinse area with water. Dispose of material in accordance with local regulations.

Evacuation Procedures: Not necessary.

Special Instructions: Surfaces may become slippery after spillage.

Section 7 – HANDLING AND STORAGE

Procedures for Handling: No special precautions required.

Recommended Storage Methods: N/A

Section 8 – EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines:

- A. General Product Information
None required
- B. Component Exposure Limits:
No ACGIH, NIOSH OR OSHA exposure guidelines listed for this product's components.

Engineering Control: Use general ventilation.

Personal Protective Gear:

Eye/Face: None required for normal usage.

Skin: None required.

Respiratory: None required

General: None required.

Section 9 – PHYSICAL & CHEMICAL PROPERTIES

Appearance: Clear Amber
Physical State: Slightly Viscous Liquid
Vapor Pressure: Not available
Boiling Point: 213°F @ 760 mm Hg
Melting Point: Not applicable
Specific Gravity: 1.119 (Water = 1)
Softening Point: Not applicable
Viscosity: Not available
Percent Volatile: Not applicable
Odor: None
pH: 9.85 to 10.35
Vapor Density: Not available
Freezing Point: 29°F
Solubility (H₂O): Miscible
Particle Size: 1.2 – 4 nanometers
Flash Point: > 214°F (RTU)
Evaporation Rate: Not applicable
Bulk Density: Not applicable
Molecular Weight: Mixture
Additional Properties: No additional properties available

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Section 9 – PHYSICAL & CHEMICAL PROPERTIES CONT'D

VOC's: Testing was performed using Gas Chromatography/Mass Spectrometer instrumentation to determine the presence of any contaminating compounds. Results indicated that NO contaminants of any kind, including VOC's, were present.

Section 10 – CHEMICAL STABILITY & REACTIVITY INFORMATION

Chemical Stability: Stable.

Conditions to Avoid: None documented.

Incompatibility: None documented.

Hazardous Decomposition Products: Upon decomposition this product emits carbon dioxide.

Hazardous Polymerization: Will not occur

Section 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity/Target Organ Information

- A. General Product/Component Information
No irritation or toxicity associated with this product.
- B. Component LD50/LC50 – Not applicable – NO such testing conducted on animals. NO toxicity associated with this product.

Epidemiology: No information available.

Carcinogenicity

- A. General Product/Component Information
None Identified.
- B. Component Carcinogenicity Listings

None of this product's components are listed by ACGIH, IARC, NIOSH, NTP or OSHA.

Neurotoxicity: None

Mutagenicity: None

Other Information: None available.

Section 12– ECOLOGICAL INFORMATION

Ecotoxicity: There is no known ecotoxicity associated with this product.

Environmental Fate: Contains Biodegradable Surfactants

Section 13 – DISPOSAL CONSIDERATIONS

US EPA Waste Number & Description

- A. General Product Information: Not listed by the EPA as a hazardous waste.
- B. Component Waste Number: No EPA Waste Numbers are applicable for this product's components.

Disposal Instructions: Clean spill area and dispose of waste in accordance with all applicable federal, state and local regulations.

Section 14 – TRANSPORTATION INFORMATION

DOT Information

Shipping Name:	Non-regulated
Hazard Class:	N/A
UN/NA:	N/A
Packing Group:	N/A
Label(s) Required:	None
Additional Shipping Information:	None
International Transportation Regulations:	N/A

Section 15 – REGULATORY INFORMATION

US Federal Regulations

- A. General Product Information
No information available.
- B. Component Information
None of this product's components are listed under SARA Section 302 (40CFR Appendix A), SARA Section 313 (40CFR 372.65) or CERCLA (40CFR 302.4).
All of this product's components are on the EPA's TSCA Inventory
All of this product's components are on the FDA's GRAS list

State Regulations

- A. General Product Information
No information available
Component Information N/A
- B. Other Regulations

Local Regulations

- A. General Product Information
No information available.
- B. Component Information N/A
Other Regulations

Section 16 – OTHER INFORMATION

Other Information:

Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representation and assumes no liability for any direct, incidental or consequential damages resulting from its use. The above sets forth technical data supplied to the manufacturer and has been edited to avoid disclosure of proprietary information and avoid redundancy. All inquiries concerning the content of this document should be directed to the Distributor or Manufacturer.

Key/Legend

Y = Yes; N = No; EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; FDA = Food and Drug Administration; GRAS = Generally Regarded As Safe; IARC = International Agency for Research Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; N/A = Not Available or Applicable; g = grams; ml = milliliter; C = Celsius; F = Fahrenheit; DOT = Department of Transportation.

SDS revision: 01/25/2023
Contact: Technical Department
Phone: 800-749-Bioneat

Test Data

Product Overview

Submittal Year:	2023
NTPEP Number:	ARA-2023-01-002
Manufacturer Name:	BioNeat Inc.
Product Name:	BioNeat NTS-1™ Asphalt Release Agent
pH:	10.5
Dilution Ratio:	Ready to Use
Flash Point °F:	1000
Does this product conform to the GHS requirements in the work plan?:	Yes

	Test	Unit	Rep1	Rep2	Rep3	Avg	Actions
Stripping Test - Gravimetric (Public)	Non-Diluted - Weight Change	g	-.70	-.90	-.80	-.80	View Photos (5)
	Non-Diluted - Percent Weight Change	%	.23	.30	.26	.27	
	Diluted - Weight Change	g					
	Diluted - Percent Weight Change	%					
	Comments	The initial photographs are taken immediately after liquid is added to all 4 jars (Day 1). Photos are only available for individual states to aid in determining an acceptable level of stripping					
Mixture Slide Test - Testing Discontinued (ARA-22-01) (Public)	Initial Plate Weight	g					View Photos (0)
	Final Plate Weight	g					
	Amount of Mix Retained on Plate	g					
	Comments	Test no longer performed. All asphalt release agents are tested in accordance with current workplan: NTPEP Evaluation of Asphalt Release Agents, ARA-22-01.					
Asphalt Pull-Off Test (Public)	Initial Plate Weight	g	2138.50	2123.50	2140.80		View Photos (3)
	Final Plate Weight	g	2131.60	2115.20	2132.80		
	Pour Binder Weight	g	19.89	19.99	20.04		
	Percent Binder	%	0.0	0.0	0.0	0.0	
	Comments	For Replicates No.1, No.2, and No.3 results are from the 7th pull with 0% binder retained on the plates.					

	Test	Unit	Rep1	Rep2	Rep3	Avg
pH Test (Restricted)	pH		10.6			
	Comments	@22°C				
Flash Point Test (Restricted)	Flash Point	°F				
	Comments	>210°F, No Flash detected prior to material boiling				
Percent Solids Test (Restricted)	Percent Solids	%	4.595	4.579	4.616	4.597
	Comments					

	Test	Unit	Rep1	Rep2	Rep3	Avg
Specific Gravity Test (Restricted)	Specific Gravity		1.0118	1.0123	1.0120	1.0121
	Comments					
	Test	Unit	IR Documents			
Infrared Spectra Test (Restricted)	Manufacturer Submitted Infrared Spectra	cm ⁻¹	BION 01-02-01.TE.ARA.NTS-1.Rev.1.email_1.pdf			
	Laboratory Determined Infrared Spectra	cm ⁻¹	ARA 2023-01-002 (Report Format)			
	Comments					



ASPHALT TECHNOLOGIES, INC.



TEST & EVALUATION REPORT

Evaluation of BioNeat NTS-1 Asphalt Release Agent

January 23, 2023 Revised

Report For: BioNeat™ Inc.
458 Main Street
Wilmington, MA 01887

Email: j.correia@bioneat.com

Attn: Joseph Correia

SAMPLE DATA / INFORMATION:

SAMPLE ID	GRADE/TYPE	DATE RECEIVED	SOURCE	PROJECT #
Asphalt Release Agent	NTS-1	12/13/22	BioNeat	BION 01-02-01R1

OBJECTIVE: Analyze as received Ready to Use (RTU) ARA for Product Formulation Reference Parameters per AASHTO T 383.

DATA/RESULTS:

PROPERTY	TEST METHOD	RESULTS, NTS-1
Product Formulation Reference Parameters		
pH Determination	22°C ASTM E70	10.5
PMCC Flash Point, Method B, °F	ASTM D93	>214
Infrared Spectrum – FT-IR	ASTM E1252	See Appendix

DISCUSSION:

- Flash could not be obtained as the sample boils at 214°F, as typical of water-based products.
- FT-IR Spectrum is from the dried residue of the sample as per current AASHTO testing protocols

See table above for results, and appendix for FT-IR spectrum.

Tested by:


Terrell Wright, Pavement Preservation Technician

Date: January 23, 2023

Reviewed by:


Sonia Serna, Director of Lab Operations

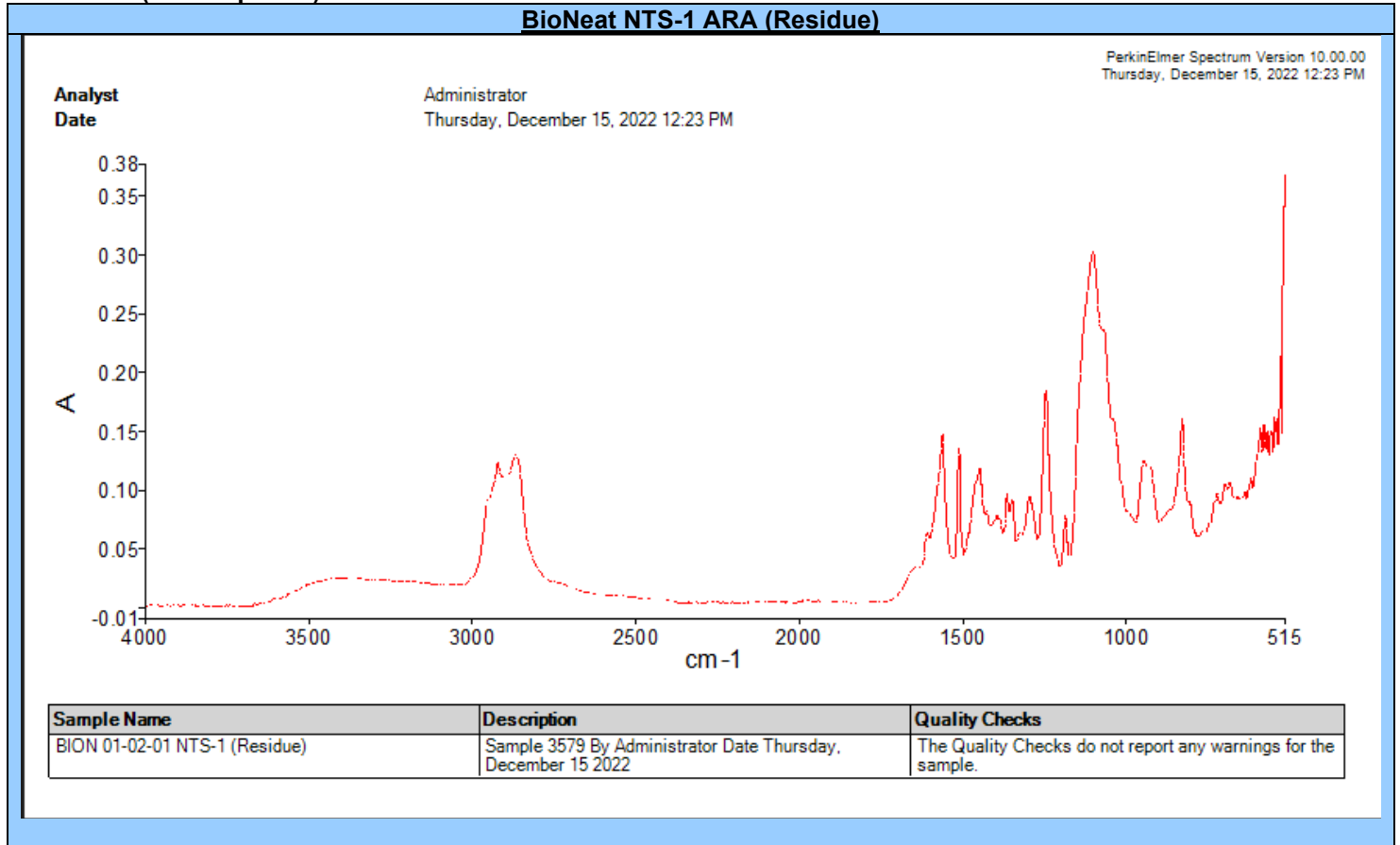
Date: January 23, 2023

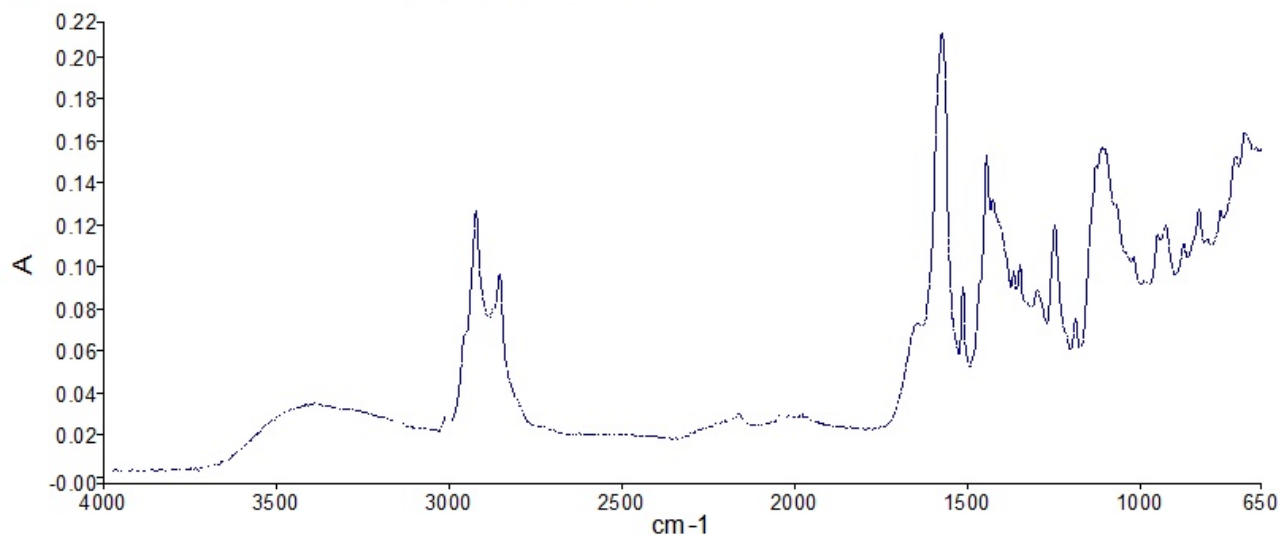



BioNeat Inc.
Formulation Reference Parameters
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APPENDIX

Table A-1 (FT-IR Spectra):



Analyst
DateAdministrator
Sunday, March 12, 2023 9:58 AM

Sample Name	Tested By	Testing Facility
ARA 2023-01-002 BioNeat NTS-1	Steven Loeffler Signature: 	PRI Asphalt Technologies 6408 Badger Drive Tampa, FL 33610



BioNeat NTS-1™, is a very unique and diverse surfactant. Applications are nearly unlimited primarily because BioNeat NTS-1™ is non harmful and biodegradable. Our products are a unique emulsifier that can separate oil from surfaces and substrates.

BioNeat NTS-1™ is a combination of ingredients blended according to a proprietary process. This process produces a chemical reaction creating an extremely active cleaning agent: a submicroscopic, soap-like molecule called a colloidal micelle or nano particle. Nano-particles are clusters of linear molecules of fatty esters and fatty acids massed together in a spherical shape (micelle).

BioNeat NTS-1™ is Ready To Use (RTU) and does not require dilution.

Directions for Use:

1. Apply the BioNeat NTS-1™ to surface.
 2. Let sit for a few minutes
- *Aggitate if user feels necessary
3. Rinse off
 4. Repeat as user sees fit.



ARA 2023-01-002

ASPHALT RELEASE AGENT

Code: 00853898007992

Size: 275 GALLON TOTE

Rev Date: 01-23-2023

asphalt release agent

For Industrial / Institutional Use
RTU (Ready to Use)

Directions for Use:

1. Apply the BioNeat NTS-1™ to surface.
2. Let sit for a few minutes. *Aggitate if user feels necessary.
3. Rinse off.
4. Repeat as user sees fit.

First Aid Measures:

Eyes: In case of direct contact with eyes, rinse with water if irritation occurs.

Skin: If desired wash after handling; but no level of toxicity is associated with the material being absorbed through the skin.

Ingestion: There is no known level of toxicity associated with ingestion of this product.

Inhalation: There is no level of toxicity associated with the material being inhaled.

If irritation occurs seek medical attention immediately.

BioNeat NTS-1™ is a proprietary, Nano-technology/Colloidal Micelle Soap Formula made from Natural Ingredients.

Ingredients:
Aqua (Water) Coconut Oil
Fatty Acids Sodium Bicarbonate

Manufactured by:
Bio Neat Inc.
101 SE 10th Street
Fort Lauderdale, Florida, 33316
Phone: 1 800 749 BIONEAT
E-mail: info@bioneat.com
bioneat.com

Made with BioBased Ingredients

CONTAINS BIODEGRADABLE SURFACTANTS

8 53898 00799 2

CONTAINS BIODEGRADABLE SURFACTANTS & LESS TOXIC | 275 GALLON

For consumer information, call **1-800-BioNeat (246-6328)** or visit our website at **www.bioneat.com**.

101, 2830 W State Rd 84, Fort Lauderdale, Florida 33312, USA