

# SAFETY DATA SHEET

## BT VTAE Flux

### Section 1: Product and Company Identification

<b>Product Identifier</b>	Vacuum Tower Asphalt Extender	
<b>Other Means of Identification</b>	VTAE, Asphalt Flux, Asphalt Extender	
<b>Recommended Use</b>	Re-refined Used Oil Residue Mixture	
<b>Recommended Restrictions</b>	None known	

### Manufacturer/Importer/Supplier/Distributor Information

<b>Company Name</b>	Blue Tide, LLC	
<b>Address</b>	5841 Legacy Circle, Suite 250D Plano, TX 75024	
<b>Telephone</b>	Technical Questions	(469) 956-3336
<b>Website</b>	<a href="http://www.bluetide.com">www.bluetide.com</a>	
<b>Emergency Phone Number</b>	Chemtrec	(800) 424-9300

### Section 2: Hazard Identification

#### Label Elements

<b>Physical Hazards</b>	Not Classified
<b>Health Hazards</b>	Not Classified
<b>Environmental Hazards</b>	Hazardous to the aquatic environment, acute. Category 3 hazard
<b>OSHA Defined Hazards</b>	Not classified
<b>Hazard Symbol</b>	None
<b>Signal Word</b>	None
<b>Hazard Statement</b>	May be harmful to aquatic life
<b>GHS Symbol</b>	No Symbol
<b>Prevention</b>	Keep away from heat/sparks/open flames/hot surfaces – No Smoking

# SAFETY DATA SHEET

## BT VTAE Flux

<b>Response</b>	Case of fire: use dry chemical, foam, carbon dioxide, if material is hotter than 93°C (200°F), an explosion may occur using water. If eye/skin irritation occurs: get medical advice/attention. IF IN EYES: rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. IF ON SKIN: Wash with soap and water. Wash contaminated clothing before reuse
<b>Storage</b>	Store in a well ventilated place
<b>Disposal</b>	Dispose of contents/container with compliance to federal, state and local regulations
<b>Hazards Not Classified</b>	None known
<b>Supplemental Information</b>	Hydrogen Sulfide (H <sub>2</sub> S) can accumulate in the headspace of storage tanks and reach potentially hazardous concentrations

### Section 3: Composition/Information on Ingredients

**Synonyms:** Re-refined Used Oil Mixture, Co-product

**Formula:** Mixture

**Molecular Weight:** Variable

<u>Chemical Name</u>	<u>CAS Number</u>	<u>Wt%</u>
Lubricating Oils, Used, Vacuum Residues	1298393-17-0	<100
Hydrogen Sulfide	7783-06-4	<0.1

### Section 4: First Aid Measures

# SAFETY DATA SHEET

## BT VTAE Flux

<b>Inhalation</b>	Vapor or mist from hot material in enclosed area may contain high concentrations of hydrogen sulfide. If breathing difficulty exists, remove individual away from exposure and into fresh air. Seek medical attention. If breathing remains difficult, administer oxygen, keep person warm and quiet, and seek immediate attention.
<b>Skin Contact</b>	Contact with hot material may cause thermal burns, immediately cool affected area with water until material solidifies. Cover with sterile dressing and seek medical attention. Remove contaminated clothing until thoroughly cleaned and laundered. Seek medical attention for persistent irritation.
<b>Eye Contact</b>	Contact with hot material may cause thermal burns. Move individual away and into fresh air. Immediately flush eyes with large amounts of fresh water and continue flushing until irritation subsides. Seek medical attention.
<b>Ingestion</b>	Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth, place individual on the left side with head down and call emergency contacts. Contact a
	physician, medical facility, or poison control center for advice about whether to induce vomiting. Do not leave individual unattended.
<b>Skin Injection</b>	If product is injected into or under skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment within the first few hours may significantly reduce the ultimate extent of injury.

### Section 5: Fire Fighting Measures

<b>Suitable extinguishing media</b>	Use dry chemical, foam, carbon dioxide
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread fire.

## SAFETY DATA SHEET

### BT VTAE Flux

<b>Specific hazards from combustion</b>	Carbon monoxide, carbon dioxide, hydrogen sulfide, nitrogen oxides may be products of combustion. Combustion materials may be toxic
<b>Special protective equipment and precautions for firefighters</b>	Wear full firefighting turn-out year (full bunker gear), and respiratory protection (SCBA). DO NOT use water on material that is hotter than 93°C (200°F), as an explosion may result
<b>Specific methods for firefighters</b>	Use standard firefighting procedures and consider the hazards of other involved materials
<b>General Fire Hazards</b>	Will burn if involved in a fire

### Section 6: Accidental Release Measures

<b>Personal precautions and protective equipment</b>	Personal protection, see section 8 for details. Any individual not wearing protective equipment should not enter spill or contaminated area until all clean-up has been completed. Before entering storage space in a confined area, check the atmosphere for oxygen content, hydrogen sulfide and flammability. Ensure adequate ventilation.
<b>Emergency procedures</b>	For personal emergency procedures see section 4. For fire emergency procedures see section 5. Contain spilled oil liquid if possible without posing any risk or personal injury.
<b>Methods and materials for containment and cleaning up</b>	Eliminate all ignition sources. The product is immiscible with water. Prevent it from entering drains. Soak up or absorb with appropriate inert materials such as: sand, clay, silica gel, acid binder, universal binder, sawdust, paper fiber, etc. Large spills may be picked up using vacuum pumps, shovels, buckets or other means of transfer and placed into drums or any other approved and suitable containers.
<b>Environmental Precautions</b>	Prevent spreading over wide area. Contain spill immediately. Contact appropriate authorities of spill. Do not allow spill to enter sewer system, drains of any kind, surface water or water courses. Avoid flushing to such areas as well. Remove all sources of ignition.

### Section 7: Handling and Storage

# SAFETY DATA SHEET

## BT VTAE Flux

<b>Precautions for Safe Handling</b>	This product is classified as elevated temperature material under DOT regulations. See NFPA 30 and OSHA 1910.106 flammable and combustible liquids. Keep away from heat/sparks/open flame/hot surfaces – No Smoking. Store in a well-ventilated place. Do not breathe vapor or mist.
<b>Conditions for Safe Storage</b>	Store in only approved and marked containers. Store in a dry, ventilated area. Keep containers closed when not in use and during transportation. Keep containers away from flame or other ignition sources.
<b>Incompatibilities</b>	Heat, sparks, flame, oxidizing materials, acids and halogens. Avoid contact with water

### Section 8: Exposure Controls / Personal Protection

#### Occupational Exposure Limits

OSHA Table Z-2 (29 CFR 1910.100) Components	Type	Value
Hydrogen Sulfide (7783-06-4)	Ceiling	20ppm
American Conference of Governmental Industrial Hygienists (ACGIH) Threshold Components	Type	Value
Hydrogen Sulfide (7783-06-4)	STEL	5ppm

#### Individual Protection Measures, such as Personal Protective Equipment

<b>Eye/Face Protection</b>	Safety glasses with side protection is required. If material is handled such that it could be splashed or misted into eyes, wear plastic face shield or splash resistant safety goggles or glasses with side shields.
<b>Hand Protection</b>	Hand protection is required. Wear resistant gloves suitable for the product, contact your safety department or supplier to determine the proper hand protection.

# SAFETY DATA SHEET

## BT VTAE Flux

<b>Skin and body protections</b>	Use impervious clothing (boots, gloves, aprons, bibs, etc.) over parts of the body subject to exposure. If handling hot material, use insulated protective clothing. Launder soiled clothes, do not reuse contaminated clothing. Properly dispose of contaminated clothing or articles that cannot be laundered such as leather gloves, boots, etc. If skin irritation occurs, get medical advice/attention. Contact your facility safety department or safety supplier to determine the proper protective equipment for your use.
<b>Respiratory Protection</b>	If vapor mist is generated when the material is heated or handled, use an organic vapor respirator with a dust and mist filter. All respirators must be NIOSH certified. Fit testing may be required before use. Do not use compressed oxygen in hydrocarbon atmospheres. Adequate ventilation in accordance with good engineering practices must be provided to maintain concentrations below the specified exposure or flammable limits.
<b>General Hygiene Considerations</b>	Do not use contaminated clothing, launder clothing before reuse. Wash contaminated areas of the body which may have been exposed with soap and water. Wash thoroughly before handling food and beverages. Food and beverage consumption should be avoided in work areas where hydrocarbons are present.

### Section 9: Physical and Chemical Properties

<b>Appearance</b>	Black viscous
<b>Physical State</b>	Semi-solid, liquid when hot
<b>Odor</b>	Petroleum oil
<b>Odor Threshold</b>	0.1ppm (H <sub>2</sub> S)
<b>API Gravity</b>	12.0-18.0
<b>Boiling Point</b>	426°C (800°F Min.)
<b>Molecular Weight</b>	>525
<b>Initial Boiling Point and Boiling Range</b>	>550°F (287.8°C)
<b>Flash Point (C.O.C)</b>	>500°F
<b>Upper/lower Flammability or Explosive Limits</b>	No data available
<b>Vapor Pressure</b>	<0.2mm Hg@80°C
<b>Solubility in water</b>	Insoluble
<b>Pour Point</b>	40°F

# SAFETY DATA SHEET

## BT VTAE Flux

Liquid viscosity (cSt@100°C)	~1000
Autoignition temperature	485°C (905°F)
Gravity/Density (ASTM D4042)	0.9405
Viscosity @60°C (ASTM D4402)	370
Viscosity @100°C (D4042)	80 cSt
Pounds Per Gallon	7.85

### Section 10: Stability and Reactivity

Reactivity	May react strong with oxidizing agents
Chemical Stability	Stable under normal temperatures and pressures
Possibility of Hazardous Reactions	Product will not undergo hazardous polymerization
Conditions to Avoid	Heat, open flames, water when material is hot
Incompatible Materials	Strong oxidizing agents, acids, halogens
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, hydrogen sulfide, nitrogen oxide and other toxic materials are possible

### Section 11: Toxicological Information

#### Information on Likely Routes of Exposure:

Ingestion	May cause discomfort if swallowed.
Inhalation	Prolonged inhalation may be harmful. At elevated temperatures, vapor may cause irritation of respiratory tract. Inhaling hydrogen sulfide released from this product may cause nausea, vomiting, headaches, dizziness, loss of coordination, numbness, convulsions, death.
Skin Contact	Contact with hot material can cause thermal burns. For cooled product, may cause irritation.
Eye contact	At the elevated temperatures, vapor may cause irritation of eyes. Contact with hot material can cause thermal burns.

#### Information on Toxicological Effects

Acute Toxicity	Contains hydrogen sulfide. May rapidly cause irritation, breathing failure, coma, and death without necessarily any warning odor being detected
----------------	---

## SAFETY DATA SHEET

### BT VTAE Flux

<b>Component Analysis – LD50/LC50</b>	<b>Hydrogen Sulfide (CAS 7786-06-4)</b>  Inhale LC50 Rat 700mg/m <sup>3</sup> , 4h
<b>Respiratory Sensitization</b>	Not a respiratory sensitizer
<b>Skin Sensitization</b>	This product is not expected to cause skin sensitization
<b>Germ Cell Mutagenicity</b>	Based on current information, there is no known mutagenicity related to this product
<b>Carcinogenicity</b>	IARA Monographs, NTP, OSHA Specifically Regulated substances (29 CFR1910, 1001-1053): Not listed
<b>Reproductive Toxicity</b>	Not expected to cause reproductive or developmental effects
<b>Specific Target Organ Toxicity</b>	<b>Single Exposure</b> – No target organs identified <b>Repeated Exposure</b> – No target organs identified
<b>Aspiration hazard</b>	Not an aspiration hazard
<b>Chronical effects</b>	Prolonged inhalation may be harmful. Individuals with preexisting respiratory trace, eye, and or skin disorders may have increased susceptibility to the effects of exposure

### Section 12: Ecological Information

<b>Ecotoxicity</b>	Harmful to aquatic life  Hydrogen Sulfide: CAS 7783-06-4 Fish: LC50 96 h Lepomis macrochirus 0.0448 mg/L [flowthrough]; LC50 96 h Pimephales promelas 0.016 mg/L [flowthrough]
<b>Persistence and Degradability</b>	No data available
<b>Bioaccumulative Potential</b>	No data available
<b>Mobility in Soil</b>	This product is insoluble in water and has a low mobility in the environment
<b>Other Adverse Effects</b>	None known

### Section 13: Disposal Considerations



# SAFETY DATA SHEET

## BT VTAE Flux

<b>Disposal Methods</b>	All disposals must comply with federal, state and local regulations. Spilled or discarded material may be a regulated waste. Refer to state and local regulations. If other material was used during cleanup efforts, the resultant mixture may be regulated differently and determination may be required.
<b>Local Disposal Regulations</b>	Dispose in accordance with applicable regulations

### Section 14: Transport Information

#### DOT Information

<b>UN Number</b>	UN3257
<b>Shipping Name</b>	Elevated Temperature Material, Liquid, n.o.s.,(Flux)
<b>Transport Hazard Class</b>	9
<b>Packing Group</b>	III
<b>Additional Information</b>	DOT is applicable when transporting temperature is greater than 100°C, (212°F). Otherwise, Not Regulated Material

#### IATA Information

<b>UN Number</b>	UN3257
<b>Shipping Name</b>	Elevated Temperature Material, Liquid, n.o.s.,(Flux)
<b>Packing Group</b>	III
<b>Additional Information</b>	When product is less than 100°C (212°F).

#### IMDG Information

<b>UN Number</b>	UN3257
<b>Shipping Name</b>	Elevated Temperature Material, Liquid, n.o.s.,(Flux)
<b>Packing Group</b>	III
<b>Additional Information</b>	When product is less than 100°C (212°F).

# SAFETY DATA SHEET

## BT VTAE Flux

### Section 15: Regulatory Information

**US Federal Regulations:** This product is not known to be a “Hazardous Chemical” as defined by the OSHA communication standard. 29 CFR 1910.1200

<b>TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)</b>	Not regulated
<b>CERCLA Hazardous Substance List (40 CFR 302.4)</b>	Hydrogen Sulfide (7783-06-4) Listed
<b>SARA Section 304 Emergency Release Notification</b>	Hydrogen Sulfide (7783-06-4) 100 lb final
<b>OSHA Specifically Regulated Substances (29 CFR 1910.1001-1053)</b>	Not listed
<b>Toxic Substances Control Act (TSCA)</b>	All components on the TSCA 8(b) are designated ‘active’
<b>California Safe Drinking Water and Toxic Enforcement Act (Proposition 65)</b>	Not listed under California Proposition 65

### US State Regulations

<b>US Massachusetts RTK – Substance List</b>	Hydrogen Sulfide (7783-06-4)
<b>US New Jersey Worker and Community Right-to-Know Act</b>	Hydrogen Sulfide (7783-06-4)
<b>US Pennsylvania Worker and Community Right-to-Know Law</b>	Hydrogen Sulfide (7783-06-4)
<b>US Rhode Island RTK</b>	Hydrogen Sulfide (7783-06-4)
<b>US California Proposition 65</b>	Hydrogen Sulfide (7783-06-4)

### Component Analysis - Inventory

<b>Lubricant Oils, used, residues</b>	129893-17-0
<b>CA</b>	DSL
<b>AU</b>	NO
<b>CN</b>	NO
<b>EU</b>	NO
<b>JP-ENCS</b>	NO
<b>MX</b>	NO

# SAFETY DATA SHEET

## BT VTAE Flux

**Section 16: Other Information**

### NFPA Hazard Classification

Health	0
Flammability	1
Reactivity	0



### HMIS Classification

Health	0
Flammability	1
Physical Hazards	0
Personal Protection	C o

<b>HEALTH</b>	<b>0</b>
<b>FLAMMABILITY</b>	<b>1</b>
<b>PHYSICAL HAZARD</b>	<b>0</b>
<b>PERSONAL PROTECTION</b>	<b>C o</b>

The information accumulated herein is believed to be accurate. However, neither Blue Tidenor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information provided herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist