SAFETY DATA SHEET

1. Identification

Product identifier  Brandt No Foam B
Other means of identification

Product code  02026
Recommended use  Agricultural/ Horticultural Use- Adjuvant- Refer to product label.
Recommended restrictions  Refer to product label.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer
Company name  Brandt Consolidated, Inc.
Address  2935 South Koke Mill Road
Springfield, IL 62711
United States
Telephone  Corporate Office 1-217-547-5800
Website  www.brandt.co
E-mail  msds@brandt.co
Contact person  EH&S / Regulatory Department
Emergency phone number  CHEMTREC (24 hours):
USA, Canada, Puerto Rico 1-800-424-9300
Virgin Islands 1-800-424-9300
International Maritime +1 (703) 527-3887

2. Hazard(s) identification

Physical hazards  Not classified.
Health hazards
Skin corrosion/irritation  Category 2
Serious eye damage/eye irritation  Category 2B

Environmental hazards
Hazardous to the aquatic environment, acute hazard  Category 3
Hazardous to the aquatic environment, long-term hazard  Category 3

OSHA defined hazards  Not classified.

Label elements

Signal word  Warning
Hazard statement  Causes skin irritation. Causes eye irritation. Harmful to aquatic life. Harmful to aquatic life with long lasting effects.
Precautionary statement
Prevention  Wash thoroughly after handling. Avoid release to the environment. Wear protective gloves.
Response  If on skin: Wash with plenty of water. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If skin irritation occurs: Get medical advice/attention. If eye irritation persists: Get medical advice/attention. Take off contaminated clothing and wash before reuse.
Storage  Store away from incompatible materials.
Disposal  Dispose of contents/container in accordance with local/regional/national/international regulations.

Hazard(s) not otherwise classified (HNOC)  None known.
Supplemental information  None.
3. Composition/information on ingredients

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Common name and synonyms</th>
<th>CAS number</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-ethylhexanol EO-PO Nonionic Surfactant</td>
<td>64366-70-7</td>
<td>10 - &lt; 20*</td>
<td></td>
</tr>
<tr>
<td>Benzenesulfonic Acid, C10-16-alkyl Derivs.</td>
<td>68584-22-5</td>
<td>5 - &lt; 10*</td>
<td></td>
</tr>
<tr>
<td>Fatty Acids, Tall-oil</td>
<td>61790-12-3</td>
<td>1 - &lt; 3*</td>
<td></td>
</tr>
<tr>
<td>Other components below reportable levels</td>
<td></td>
<td>80 - &lt; 90</td>
<td></td>
</tr>
</tbody>
</table>

*Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. First-aid measures

**Inhalation**
Move to fresh air. Call a physician if symptoms develop or persist.

**Skin contact**
Remove contaminated clothing. Wash with plenty of soap and water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

**Eye contact**
Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation develops and persists.

**Ingestion**
Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain. Provide general supportive measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.

**Most important symptoms/effects, acute and delayed**

**Indication of immediate medical attention and special treatment needed**
Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

**General information**

5. Fire-fighting measures

**Suitable extinguishing media**
Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

**Unsuitable extinguishing media**
Do not use water jet as an extinguisher, as this will spread the fire.

**Specific hazards arising from the chemical**
During fire, gases hazardous to health may be formed.

**Special protective equipment and precautions for firefighters**
Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

**Fire fighting equipment/instructions**
Move containers from fire area if you can do so without risk.

**Specific methods**
Use standard firefighting procedures and consider the hazards of other involved materials.

**General fire hazards**
No unusual fire or explosion hazards noted.

6. Accidental release measures

**Personal precautions, protective equipment and emergency procedures**
Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

**Methods and materials for containment and cleaning up**
Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

**Environmental precautions**
Avoid release to the environment. Inform appropriate managerial or supervisory personnel of all environmental releases. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Material name: Brandt No Foam B

02026  Version #: 06  Revision date: 12-20-2017  Issue date: 11-17-2016
7. Handling and storage

Precautions for safe handling
Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate
ventilation. Wear appropriate personal protective equipment. Avoid release to the environment.
Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities
Store in original tightly closed container. Store away from incompatible materials (see Section 10
of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits
No exposure limits noted for ingredient(s).

Biological limit values
No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls
Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates
should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation,
or other engineering controls to maintain airborne levels below recommended exposure limits. If
exposure limits have not been established, maintain airborne levels to an acceptable level. Eye
wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

Eye/face protection
Wear safety glasses with side shields (or goggles).

Skin protection
Hand protection
Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove
supplier.

Other
Wear appropriate chemical resistant clothing.

Respiratory protection
In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards
Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations
Always observe good personal hygiene measures, such as washing after handling the material
and before eating, drinking, and/or smoking. Routinely wash work clothing and protective
equipment to remove contaminants.

9. Physical and chemical properties

Appearance
Liquid. Slightly viscous

Physical state
Liquid.

Form
Liquid.

Color
Light brown.

Odor
Slight. Rancid

Odor threshold
Not available.

pH
1.5

Melting point/freezing point
Not available.

Initial boiling point and boiling range
192.02 °F (88.9 °C)

339.44 °F (170.8 °C)

Flash point
Not applicable

Evaporation rate
Not available.

Flammability (solid, gas)
Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower (%)
Not available.

Flammability limit - upper (%)
Not available.

Explosive limit - lower (%)
Not available.

Explosive limit - upper (%)
Not available.

Vapor pressure
0.75

Vapor density
> 1

Relative density
1.024 g/cm3 (typical)

Solubility(ies)
Soluble
Partition coefficient (n-octanol/water)  Not available.
Auto-ignition temperature  770 °F (410 °C)
Decomposition temperature Not available.
Viscosity Not available.
Other information
   Explosive properties Not explosive.
   Oxidizing properties Not oxidizing.
   pH in aqueous solution 2.25 (10% solution)
   Pounds per gallon 8.54 lb/gal (typical)
   Specific gravity 0.9 estimated

10. Stability and reactivity

Reactivity Reacts violently with strong alkaline substances. This product may react with reducing agents.
Chemical stability Material is stable under normal conditions.
Possibility of hazardous reactions No dangerous reaction known under conditions of normal use.
Conditions to avoid Contact with incompatible materials. Do not mix with other chemicals.
Hazardous decomposition products No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

<table>
<thead>
<tr>
<th>Route</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inhalation</td>
<td>Prolonged inhalation may be harmful.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Causes skin irritation.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Causes eye irritation.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>Expected to be a low ingestion hazard.</td>
</tr>
<tr>
<td>Symptoms related to the physical, chemical and toxicological characteristics</td>
<td>Irritation of eyes. Exposed individuals may experience eye tearing, redness, and discomfort. Skin irritation. May cause redness and pain.</td>
</tr>
</tbody>
</table>

Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandt No Foam B</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Acute</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>

Components

2-ethylhexanol EO-PO Nonionic Surfactant (CAS 64366-70-7)

<table>
<thead>
<tr>
<th>Acute</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>Oral</td>
<td></td>
<td></td>
</tr>
<tr>
<td>LD50</td>
<td>Rat</td>
<td>&gt; 2000 mg/kg</td>
</tr>
</tbody>
</table>
Components | Species | Test Results
---|---|---
Fatty Acids, Tall-oil (CAS 61790-12-3)

**Acute**

**Oral**

LD50 | Rat | > 5000 mg/kg

* Estimates for product may be based on additional component data not shown.

**Skin corrosion/irritation** | Causes skin irritation.

**Serious eye damage/eye irritation** | Causes eye irritation.

**Respiratory or skin sensitization**

**Respiratory sensitization** | Not a respiratory sensitizer.

**Skin sensitization** | This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** | No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** | This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**IARC Monographs. Overall Evaluation of Carcinogenicity** | Not listed.


**US. National Toxicology Program (NTP) Report on Carcinogens** | Not listed.

**Reproductive toxicity** | This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** | Not classified.

**Specific target organ toxicity - repeated exposure** | Not classified.

**Aspiration hazard** | Not an aspiration hazard.

**Chronic effects** | Prolonged inhalation may be harmful.

### 12. Ecological information

**Ecotoxicity**

Harmful to aquatic life with long lasting effects. Because of the low pH of this product, it would be expected to produce significant ecotoxicity upon exposure to aquatic organisms and aquatic systems.

<table>
<thead>
<tr>
<th>Product</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brandt No Foam B</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crustacea</td>
<td>EC50</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>LC50</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-ethylhexanol EO-PO Nonionic Surfactant (CAS 64366-70-7)</td>
<td><strong>Aquatic</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Crustacea</td>
<td>EC50</td>
</tr>
</tbody>
</table>

|  | **Aquatic** | |
| Benzenesulfonic Acid, C10-16-alkyl Derivs. (CAS 68584-22-5) | Crustacea | EC50 | Water flea (Ceriodaphnia dubia) | 4.66 - 6.83 mg/l, 48 hours |

|  | **Aquatic** | |
| Fatty Acids, Tall-oil (CAS 61790-12-3) | Crustacea | EC50 | Daphnia magna | 12.2 mg/l, 48 hours |

Material name: Brandt No Foam B

02026  Version #: 06  Revision date: 12-20-2017  Issue date: 11-17-2016  SDS US 5 / 7
<table>
<thead>
<tr>
<th>Components</th>
<th>Species</th>
<th>Test Results</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>LC50</td>
<td>Pimephales promelas</td>
</tr>
</tbody>
</table>

* Estimates for product may be based on additional component data not shown.

**Persistence and degradability**
No data is available on the degradability of this product.

**Bioaccumulative potential**
No data available.

**Mobility in soil**
No data available.

**Other adverse effects**
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

### 13. Disposal considerations

**Disposal considerations**
Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.

**Disposal instructions**
Dispose in accordance with all applicable regulations.

**Local disposal regulations**
Dispose in accordance with all applicable regulations.

**Hazardous waste code**
The waste code should be assigned in discussion between the user, the producer and the waste disposal company.

**Waste from residues / unused products**
Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

**Contaminated packaging**
Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### 14. Transport information

**DOT**
Not regulated as dangerous goods.

**IATA**
Not regulated as dangerous goods.

**IMDG**
Not regulated as dangerous goods.

### 15. Regulatory information

**US federal regulations**
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

- **TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)**
  Not regulated.

- **CERCLA Hazardous Substance List (40 CFR 302.4)**
  Not listed.

- **SARA 304 Emergency release notification**
  Not regulated.

  Not regulated.

**Superfund Amendments and Reauthorization Act of 1986 (SARA)**

- **Hazard categories**
  Immediate Hazard - Yes
  Delayed Hazard - No
  Fire Hazard - No
  Pressure Hazard - No
  Reactivity Hazard - No

- **SARA 302 Extremely hazardous substance**
  Not listed.

- **SARA 311/312 Hazardous chemical**
  No

- **SARA 313 (TRI reporting)**
  Not regulated.
Other federal regulations
Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List
Not regulated.
Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)
Not regulated.
Safe Drinking Water Act (SDWA)
Not regulated.

US state regulations
US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)
Not listed.
US. Massachusetts RTK - Substance List
Not regulated.
US. New Jersey Worker and Community Right-to-Know Act
Not listed.
US. Pennsylvania Worker and Community Right-to-Know Law
Not listed.
US. Rhode Island RTK
Not regulated.
US. California Proposition 65
California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

<table>
<thead>
<tr>
<th>Country(s) or region</th>
<th>Inventory name</th>
<th>On inventory (yes/no)*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Australia</td>
<td>Australian Inventory of Chemical Substances (AICS)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Domestic Substances List (DSL)</td>
<td>Yes</td>
</tr>
<tr>
<td>Canada</td>
<td>Non-Domestic Substances List (NDSL)</td>
<td>No</td>
</tr>
<tr>
<td>China</td>
<td>Inventory of Existing Chemical Substances in China (IECSC)</td>
<td>Yes</td>
</tr>
<tr>
<td>Europe</td>
<td>European Inventory of Existing Commercial Chemical Substances (EINECS)</td>
<td>No</td>
</tr>
<tr>
<td>Europe</td>
<td>European List of Notified Chemical Substances (ELINCS)</td>
<td>No</td>
</tr>
<tr>
<td>Japan</td>
<td>Inventory of Existing and New Chemical Substances (ENCS)</td>
<td>No</td>
</tr>
<tr>
<td>Korea</td>
<td>Existing Chemicals List (ECL)</td>
<td>Yes</td>
</tr>
<tr>
<td>New Zealand</td>
<td>New Zealand Inventory</td>
<td>Yes</td>
</tr>
<tr>
<td>Philippines</td>
<td>Philippine Inventory of Chemicals and Chemical Substances (PICCS)</td>
<td>No</td>
</tr>
<tr>
<td>United States &amp; Puerto Rico</td>
<td>Toxic Substances Control Act (TSCA) Inventory</td>
<td>Yes</td>
</tr>
</tbody>
</table>

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)
A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

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

Issue date 11-17-2016
Revision date 12-20-2017
Version # 06

Disclaimer
The information provided in this Safety Data Sheet is correct to the best of Manufacturer's knowledge, information and belief at the date of its publication; however, it is provided only as a guidance for safe handling, use, processing, storage, transportation, disposal and release of the Product. No warranties of any kind, either expressed or implied, including warranties of merchantability or fitness for a particular purpose, are made with respect to the Product or the information provided herein, or that the Product or information herein may be used without infringing the intellectual property rights of others. The information provided in this Safety Data Sheet relates only to the specific Product designated and may not be valid if the Product is used in combination with other materials or in any other process, unless specified herein. The user assumes all risk and liability for loss, injury, damage or expense due to any use, handling, storage or disposal of the Product, and Manufacturer recommends that the user conducts its own tests of the Product to determine suitability of the Product for user’s particular use.

Revision information
Physical & Chemical Properties: Multiple Properties
Toxicological Information: Toxicological Data