

Avanti Polar Lipids, Inc. 700 Industrial Park Drive, Alabaster, AL 35007, USA • (800) 227-0651 • (205) 663-2494  
 • Fax (800) 229-1004 • (205) 663-0756 • E-mail Orders: orders@avantilipids.com • E-mail Inquiries: info@avantilipids.com  
 • E-mail Technical Questions: technical@avantilipids.com • Visit www.avantilipids.com

## SECTION 1: Identification of the substance/mixture and of the company/undertaking

### 1.1 Product identifiers

Product name : 18:0 Pe-Topfluor AF488

Product Number : 810383C  
 Brand : Avanti

### 1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified uses : Laboratory chemicals, Synthesis of substances

### 1.3 Details of the supplier of the safety data sheet

Company : Avanti Polar Lipids, INC  
 700 Industrial Park  
 Drive Alabaster, AL  
 35007 United States

Telephone : of America  
 Fax : (205) 663-2494  
 (205) 663-0756

### 1.4 Emergency telephone

Emergency Phone # : +1 703-741-5970 / 1800-424-9300(CHEMTREC)

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

#### GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)

Acute toxicity, Oral (Category 4), H302  
 Acute toxicity, Inhalation (Category 3), H331  
 Skin irritation (Category 2), H315  
 Eye irritation (Category 2A), H319  
 Carcinogenicity (Category 2), H351  
 Reproductive toxicity (Category 2), H361  
 Specific target organ toxicity - single exposure (Category 3), Central nervous system, H336  
 Specific target organ toxicity - repeated exposure, Oral (Category 1), Liver, Kidney, H372  
 Short-term (acute) aquatic hazard (Category 3), H402

For the full text of the H-Statements mentioned in this Section, see Section 16.

### 2.2 GHS Label elements, including precautionary statements

Pictogram



Signal word

Danger

|                            |  |
|----------------------------|--|
| Hazard statement(s)        |  |
| H302                       | Harmful if swallowed.  |
| H315                       | Causes skin irritation.  |
| H319                       | Causes serious eye irritation.   |
| H331                       | Toxic if inhaled.  |
| H336                       | May cause drowsiness or dizziness.   |
| H351                       | Suspected of causing cancer.   |
| H361                       | Suspected of damaging fertility or the unborn child.   |
| H372                       | Causes damage to organs (Liver, Kidney) through prolonged or repeated exposure if swallowed.                                     |
| H402                       | Harmful to aquatic life.   |
| Precautionary statement(s) |  |
| P201                       | Obtain special instructions before use.  |
| P202                       | Do not handle until all safety precautions have been read and understood.  |
| P260                       | Do not breathe dust/ fume/ gas/ mist/ vapors/ spray.   |
| P264                       | Wash skin thoroughly after handling.   |
| P270                       | Do not eat, drink or smoke when using this product.  |
| P271                       | Use only outdoors or in a well-ventilated area.  |
| P273                       | Avoid release to the environment.  |
| P280                       | Wear protective gloves/ protective clothing/ eye protection/ face protection.  |
| P301 + P312 + P330         | IF SWALLOWED: Call a POISON CENTER/ doctor if you feel unwell. Rinse mouth.  |
| P302 + P352                | IF ON SKIN: Wash with plenty of soap and water.  |
| P304 + P340 + P311         | IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.                         |
| P305 + P351 + P338         | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P308 + P313                | IF exposed or concerned: Get medical advice/ attention.  |
| P332 + P313                | If skin irritation occurs: Get medical advice/ attention.  |
| P337 + P313                | If eye irritation persists: Get medical advice/ attention.   |
| P362                       | Take off contaminated clothing and wash before reuse.  |
| P403 + P233                | Store in a well-ventilated place. Keep container tightly closed.   |
| P405                       | Store locked up.   |
| P501                       | Dispose of contents/ container to an approved waste disposal plant.  |

### 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS - none

## SECTION 3: Composition/information on ingredients

### 3.2 Mixtures

| Component           |                       | Classification  | Concentration    |
|---------------------|-----------------------|---|------------------|
| <b>Chloroform</b>   |                       |   |                  |
| CAS-No.             | 67-66-3               | Acute Tox. 4; Acute Tox. 3; Skin Irrit. 2; Eye Irrit. 2A; Carc. 2; Repr. 2; STOT SE 3; STOT RE 1; Aquatic Acute 3; H302, H331, H315, H319, H351, H361, H336, H372, H402 | >= 90 - <= 100 % |
| EC-No.              | 200-663-8             |   |                  |
| Index-No.           | 602-006-00-4          |   |                  |
| Registration number | 01-2119486657-20-XXXX | Concentration limits: 20 %: STOT SE 3, H336;  |                  |

---

## **SECTION 4: First aid measures**

### **4.1 Description of first-aid measures**

#### **General advice**

First aider needs to protect himself. Show this material safety data sheet to the doctor in attendance.

#### **If inhaled**

After inhalation: fresh air. Immediately call in physician. If breathing stops: immediately apply artificial respiration, if necessary also oxygen.

#### **In case of skin contact**

In case of skin contact: Take off immediately all contaminated clothing. Rinse skin with water/ shower. Consult a physician.

#### **In case of eye contact**

After eye contact: rinse out with plenty of water. Call in ophthalmologist. Remove contact lenses.

#### **If swallowed**

After swallowing: immediately make victim drink water (two glasses at most). Consult a physician.

### **4.2 Most important symptoms and effects, both acute and delayed**

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11

### **4.3 Indication of any immediate medical attention and special treatment needed**

No data available

---

## **SECTION 5: Firefighting measures**

### **5.1 Extinguishing media**

#### **Suitable extinguishing media**

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

#### **Unsuitable extinguishing media**

For this substance/mixture no limitations of extinguishing agents are given.

### **5.2 Special hazards arising from the substance or mixture**

Carbon oxides, Hydrogen chloride gas

Not combustible.

Ambient fire may liberate hazardous vapours.

### **5.3 Advice for firefighters**

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

### **5.4 Further information**

Suppress (knock down) gases/vapors/mists with a water spray jet. Prevent fire extinguishing water from contaminating surface water or the ground water system.

---

## SECTION 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Advice for non-emergency personnel: Do not breathe vapors, aerosols. Avoid substance contact. Ensure adequate ventilation. Evacuate the danger area, observe emergency procedures, consult an expert.

For personal protection see section 8.

### 6.2 Environmental precautions

Do not let product enter drains.

### 6.3 Methods and materials for containment and cleaning up

Cover drains. Collect, bind, and pump off spills. Observe possible material restrictions (see sections 7 and 10). Take up carefully with liquid-absorbent material (e.g. Chemizorb®). Dispose of properly. Clean up affected area.

### 6.4 Reference to other sections

For disposal see section 13.

---

## SECTION 7: Handling and storage

### 7.1 Precautions for safe handling

Work under hood. Do not inhale substance/mixture. Avoid generation of vapours/aerosols. For precautions see section 2.2.

### 7.2 Conditions for safe storage, including any incompatibilities

Tightly closed. Keep in a well-ventilated place. Keep locked up or in an area accessible only to qualified or authorized persons.

Recommended storage temperature -20 °C

Storage class (TRGS 510): 6.1D: Non-combustible, acute toxic Cat.3 / toxic hazardous materials or hazardous materials causing chronic effects

### 7.3 Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

---

## SECTION 8: Exposure controls/personal protection

### 8.1 Control parameters

#### Ingredients with workplace control parameters

| Component  | CAS-No. | Value  | Control parameters              | Basis                                   |
|------------|---------|--|---------------------------------|---|
| Chloroform | 67-66-3 | TWA  | 10 ppm                          | USA. ACGIH Threshold Limit Values (TLV) |
|            | Remarks | Confirmed animal carcinogen with unknown relevance to humans |                                 |   |
|            |         | ST   | 2 ppm<br>9.78 mg/m <sup>3</sup> | USA. NIOSH Recommended Exposure Limits  |
|            |         | Potential Occupational Carcinogen                            |                                 |   |

|  |  |     |                                 |   |
|--|--|-----|---------------------------------|---|
|  |  | C   | 50 ppm<br>240 mg/m <sup>3</sup> | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants        |
|  |  | PEL | 2 ppm<br>9.78 mg/m <sup>3</sup> | California permissible exposure limits for chemical contaminants (Title 8, Article 107) |

## 8.2 Exposure controls

### Appropriate engineering controls

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance.

### Personal protective equipment

#### Eye/face protection

Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU). Safety glasses

#### Skin protection

required

#### Body Protection

protective clothing

#### Respiratory protection

required when vapours/aerosols are generated.

Our recommendations on filtering respiratory protection are based on the following standards: DIN EN 143, DIN 14387 and other accompanying standards relating to the used respiratory protection system.

#### Control of environmental exposure

Do not let product enter drains.

---

## SECTION 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

- |   |                   |
|---|-------------------|
| a) Appearance                                   | Form: liquid      |
| b) Odor   | No data available |
| c) Odor Threshold                               | No data available |
| d) pH   | No data available |
| e) Melting point/freezing point                 | No data available |
| f) Initial boiling point and boiling range      | No data available |
| g) Flash point                                  | ( )Not applicable |
| h) Evaporation rate                             | No data available |
| i) Flammability (solid, gas)                    | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapor pressure                               | No data available |
| l) Vapor density                                | No data available |
| m) Relative density                             | No data available |

|    |   |                   |
|----|---|-------------------|
| n) | Water solubility                          | No data available |
| o) | Partition coefficient:<br>n-octanol/water | No data available |
| p) | Autoignition<br>temperature               | Not applicable    |
| q) | Decomposition<br>temperature              | No data available |
| r) | Viscosity                                 | No data available |
| s) | Explosive properties                      | No data available |
| t) | Oxidizing properties                      | No data available |

## 9.2 Other safety information

No data available

---

## SECTION 10: Stability and reactivity

### 10.1 Reactivity

No data available

### 10.2 Chemical stability

The product is chemically stable under standard ambient conditions (room temperature) .

### 10.3 Possibility of hazardous reactions

No data available

### 10.4 Conditions to avoid

no information available

### 10.5 Incompatible materials

Strong oxidizing agents

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides, Hydrogen chloride gas

In the event of fire: see section 5

---

## SECTION 11: Toxicological information

### 11.1 Information on toxicological effects

#### Acute toxicity

Dermal: No data available

No data available

#### Skin corrosion/irritation

Mixture causes skin irritation.

#### Serious eye damage/eye irritation

Mixture causes serious eye irritation.

#### Respiratory or skin sensitization

No data available

#### Germ cell mutagenicity

## **Carcinogenicity**

Evidence of a carcinogenic effect.

IARC: 2B - Group 2B: Possibly carcinogenic to humans (Chloroform)

NTP: No ingredient of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

OSHA: No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

## **Reproductive toxicity**

Suspected of damaging the unborn child.

Suspected of damaging fertility.

## **Specific target organ toxicity - single exposure**

Mixture may cause drowsiness or dizziness.

Acute oral toxicity - Irritations of mucous membranes in the mouth, pharynx, oesophagus and gastrointestinal tract.

Acute inhalation toxicity - Possible symptoms: , mucosal irritations

## **Specific target organ toxicity - repeated exposure**

Mixture causes damage to organs through prolonged or repeated exposure. - Liver, Kidney

## **Aspiration hazard**

No data available

## **Additional Information**

RTECS: Not available

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

Hazardous properties cannot be excluded but are unlikely when the product is handled appropriately.

---

## **SECTION 12: Ecological information**

### **12.1 Toxicity**

No data available

### **12.2 Persistence and degradability**

No data available

### **12.3 Bioaccumulative potential**

No data available

### **12.4 Mobility in soil**

No data available

### **12.5 Results of PBT and vPvB assessment**

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

### **12.6 Other adverse effects**

No data available

---

## SECTION 13: Disposal considerations

### 13.1 Waste treatment methods

#### Product

Waste material must be disposed of in accordance with the national and local No mixing with other waste. Handle uncleaned containers like the product. See [www.retrologistik.com](http://www.retrologistik.com) for processes regarding the return of chemicals and containers, or contact us there if you have further questions.

---

## SECTION 14: Transport information

#### DOT (US)

UN number: 1888    Class: 6.1    Packing group: III  
Proper shipping name: ChloroformSOLUTION

Reportable Quantity (RQ): 10 lbs  
Reportable Quantity (RQ): 10 lbs  
Poison Inhalation Hazard: No

#### IMDG

UN number: 1888    Class: 6.1    Packing group: III    EMS-No: F-A, S-A  
Proper shipping name: CHLOROFORMSOLUTION

#### IATA

UN number: 1888    Class: 6.1    Packing group: III  
Proper shipping name: ChloroformSOLUTION

---

## SECTION 15: Regulatory information

#### SARA 302 Components

|            |                    |                             |
|------------|--------------------|-----------------------------|
| Chloroform | CAS-No.<br>67-66-3 | Revision Date<br>2008-11-03 |
|------------|--------------------|-----------------------------|

#### SARA 313 Components

The following components are subject to reporting levels established by SARA Title III, Section 313:

|            |                    |                             |
|------------|--------------------|-----------------------------|
| Chloroform | CAS-No.<br>67-66-3 | Revision Date<br>2008-11-03 |
|------------|--------------------|-----------------------------|

Reportable Quantity : D022 lbs

#### Massachusetts Right To Know Components

No components are subject to the Massachusetts Right to Know Act.

---

## SECTION 16: Other information

#### Further information

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the



present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.sigma-aldrich.com](http://www.sigma-aldrich.com) and/or the reverse side of invoice or packing slip for additional terms and conditions of sale.

Copyright 2020 Sigma-Aldrich Co. LLC. License granted to make unlimited paper copies for internal use only.

The branding on the header and/or footer of this document may temporarily not visually match the product purchased as we transition our branding. However, all of the information in the document regarding the product remains unchanged and matches the product ordered. For further information please contact [mlsbranding@sial.com](mailto:mlsbranding@sial.com).

Version: 8.0

Revision Date: 07/21/2020

Print Date: 07/27/2020