

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 700301  
**Product Name:** FAAH Assay Buffer (10X)  
**Synonyms:** Assay Buffer (10X);
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
1180 E. Ellsworth Rd.  
Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**  
**GHS Signal Word:** **None**  
**GHS Hazard Phrases:**  
Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precautionary Phrases:**  
No phrases apply.  
**GHS Response Phrases:**  
No phrases apply.  
**GHS Storage and Disposal Phrases:**  
Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
May cause eye, skin, or respiratory system irritation.  
To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
60-00-4 AH4025000	Ethylenediamine Tetraacetic Acid 01-2119486399-18	0.292 %	200-449-4 607-429-00-8	Eye Damage 2A: H319
77-86-1 TY2900000	Trizma base 01-2119957659-16	15.14 %	201-064-4 NA	
7732-18-5 ZC0110000	Water na	84.568 %	231-791-2 NA	No GHS classifications apply.

### Section 4. First Aid Measures

**4.1 Description of First Aid Measures:**

**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

**Hazards:**

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**Precautions:**

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
77-86-1	Trizma base	ACGIH TLV	CEIL: 5 mg/m3 (salts)	

77-86-1 Trizma base (continued)	France VL	TWA: 5 mg/m3	
	OSHA PELs	TWA: 5 mg/m3	
	Britain EH40	TWA: 5.0 mg/m3	Skin Absorption

### 8.2 Exposure Controls:

**8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

### 8.2.2 Personal protection equipment:

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.

**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

### 9.1 Information on Basic Physical and Chemical Properties

**Physical States:** [ ] Gas [X] Liquid [ ] Solid

**Appearance and Odor:** 5 ml of 1.25 M Tris-HCl, pH 9.0, containing 10 mM EDTA

**pH:** 9.0

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

### 9.2 Other Information

**Percent Volatile:** No data.

### Section 10. Stability and Reactivity

- 10.1 Reactivity:** No data available.
- 10.2 Stability:** Unstable [ ] Stable [ X ]
- 10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.
- Polymerization:** Will occur [ ] Will not occur [ X ]
- 10.4 Conditions To Avoid:** No data available.
- 10.5 Incompatibility - Materials To Avoid:** No data available.
- 10.6 Hazardous Decomposition or Byproducts:** No data available.

### Section 11. Toxicological Information

- 11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.
- Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
60-00-4	Ethylenediamine Tetraacetic Acid	n.a.	n.a.	n.a.	n.a.
77-86-1	Trizma base	n.a.	n.a.	n.a.	n.a.
7732-18-5	Water	n.a.	n.a.	n.a.	n.a.

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 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:** No data available.
- 12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

- 13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

- 14.1 LAND TRANSPORT (US DOT):**
- DOT Proper Shipping Name:** Not dangerous goods.
- DOT Hazard Class:**
- UN/NA Number:**
- 14.1 LAND TRANSPORT (European ADR/RID):**
- ADR/RID Shipping Name:** Not dangerous goods.
- UN Number:**
- Hazard Class:**



# SAFETY DATA SHEET

## FAAH Assay Buffer (10X)

Revision: 10/30/2019  
Supersedes Revision: 06/06/2017

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Not dangerous goods.

**UN Number:**

**Packing Group:**

**Hazard Class:**

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### Section 15. Regulatory Information

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

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
60-00-4	Ethylenediamine Tetraacetic Acid	No	Yes 5000 LB	No
77-86-1	Trizma base	No	No	Yes-Cat. N106
7732-18-5	Water	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
60-00-4	Ethylenediamine Tetraacetic Acid	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
77-86-1	Trizma base	CAA HAP,ODC: Yes - Cat.; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No
7732-18-5	Water	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes - Inventory; CA PROP.65: No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 10/30/2019

**Additional Information About This Product:** No data available.

**This Product:**

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



## FAAH (human recombinant) Assay Reagent

Revision: 10/30/2019

Supersedes Revision: 06/06/2017

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015

## Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 700302  
**Product Name:** FAAH (human recombinant) Assay Reagent  
**Synonyms:** FAAH (human recombinant);
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

## Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**
- 2.2 Label Elements:**  
**GHS Signal Word:** None  
**GHS Hazard Phrases:**  
 Based on evaluation of currently available data this substance or mixture is not classifiable according to GHS.  
**GHS Precautionary Phrases:**  
 No phrases apply.  
**GHS Response Phrases:**  
 No phrases apply.  
**GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

## Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	( Trade Secret )NA	100.0 %	NA NA	No data available.

### Section 4. First Aid Measures

**4.1 Description of First Aid**
**Measures:**

**In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.

**In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.

**In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.

**In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

**5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray.

**Media:** Use water spray to cool fire-exposed containers.

**Unsuitable Extinguishing Media:** A solid water stream may be inefficient.

**Media:**

**5.2 Flammable Properties and Hazards:** No data available.

**Hazards:**

No data available.

**Flash Pt:** No data.

**Explosive Limits:** LEL: No data. UEL: No data.

**Autoignition Pt:** No data.

**5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

**6.1 Protective Precautions,** Avoid breathing vapors and provide adequate ventilation.

**Protective Equipment and Emergency Procedures:** As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).

**6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.

**Precautions:**

**6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate.

Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

**7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.

Avoid prolonged or repeated exposure.

**7.2 Precautions To Be Taken in Storing:** Keep container tightly closed.

Store in accordance with information listed on the product insert.

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

**8.2 Exposure Controls:**

**8.2.1 Engineering Controls** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**FAAH (human recombinant) Assay Reagent**

Revision: 10/30/2019

Supersedes Revision: 06/06/2017

(Ventilation etc.):

**8.2.2 Personal protection equipment:**
**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment** NIOSH approved respirator, as conditions warrant.

**(Specify Type):**
**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

**9.1 Information on Basic Physical and Chemical Properties**
**Physical States:** [ ] Gas [X] Liquid [ ] Solid

**Appearance and Odor:** 120 µl of human recombinant FAAH

**pH:** 7.8

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Hg):**
**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Coefficient:**
**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

**9.2 Other Information**
**Percent Volatile:** No data.

## Section 10. Stability and Reactivity

**10.1 Reactivity:** No data available.

**10.2 Stability:** Unstable [ ] Stable [X]

**10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.

**Polymerization:** Will occur [ ] Will not occur [X]

**10.4 Conditions To Avoid:** No data available.

**10.5 Incompatibility - Materials To Avoid:** No data available.

**To Avoid:**
**10.6 Hazardous Decomposition or** No data available.





# SAFETY DATA SHEET

## FAAH (human recombinant) Assay Reagent

Byproducts:

### Section 11. Toxicological Information

**11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

**Carcinogenicity:** NTP? No IARC Monographs? No OSHA Regulated? No

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
NA	( Trade Secret )	n.a.	n.a.	n.a.	n.a.

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 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:** No data available.
- 12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

**13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not dangerous goods.

**DOT Hazard Class:**

**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Not dangerous goods.

**UN Number:**

**Hazard Class:**

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Not dangerous goods.

**UN Number:**

**Packing Group:**

**Hazard Class:**

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.

### Section 15. Regulatory Information

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

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	( Trade Secret )	No	No	No



# SAFETY DATA SHEET

## FAAH (human recombinant) Assay Reagent

Revision: 10/30/2019

Supersedes Revision: 06/06/2017

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
NA	( Trade Secret )	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 10/30/2019

**Additional Information About This Product:** No data available.

**This Product:**


**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.

according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 700303  
**Product Name:** FAAH Substrate
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

- 2.1 Classification of the Substance or Mixture:**  
 Flammable Liquids, Category 2
- 2.2 Label Elements:**
- 
- GHS Signal Word:** Danger
- GHS Hazard Phrases:**  
 H225: Highly flammable liquid and vapor.
- GHS Precautionary Phrases:**  
 P210: Keep away from {heat/sparks/open flames/hot surfaces}. - No smoking.  
 P280: Wear {protective gloves/protective clothing/eye protection/face protection}.
- GHS Response Phrases:**  
 P303+361+353: IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower.
- GHS Storage and Disposal Phrases:**  
 Please refer to Section 7 for Storage and Section 13 for Disposal information.
- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
NA NA	AMC Arachidonoyl Amide	0.02 %	NA NA	No data available.
64-17-5 KQ6300000	Ethyl alcohol 01-2119457610-43-0000	99.98 %	200-578-6 603-002-00-5	Flam. Liq. 2: H225

### Section 4. First Aid Measures

- 4.1 Description of First Aid Measures:**
- In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
- In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
- In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
- In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.
- 4.2 Important Symptoms and Effects, Both Acute and Delayed:** May cause anemia, cough, CNS depression, drowsiness, headache, heart damage, lassitude (weakness, exhaustion), liver damage, narcosis, reproductive effects, teratogenic effects.

### Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
- Unsuitable Extinguishing Media:** A solid water stream may be inefficient.
- 5.2 Flammable Properties and Hazards:** Can release vapors that form explosive mixtures at temperatures at or above the flashpoint.
- Container explosion may occur under fire conditions.  
Emits toxic fumes under fire conditions.  
Sensitive to static discharge.  
Vapors can travel to a source of ignition and flash back.  
No data available.
- Flash Pt:** 14.00 C Method Used: Closed Cup
- Explosive Limits:** LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
- Autoignition Pt:** 363.00 C
- 5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.  
Note: Flammable as diluted in ethanol.

### Section 6. Accidental Release Measures

- 6.1 Protective Precautions, Protective Equipment and Emergency Procedures:** Avoid breathing vapors and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
- 6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.
- 6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray.  
Avoid prolonged or repeated exposure.  
Keep away from sources of ignition.  
Take precautionary measures against static discharge.
- 7.2 Precautions To Be Taken in Storing:** Keep away from heat, sparks, and flame.  
Keep container tightly closed.  
Store in accordance with information listed on the product insert.
- Other Precautions:** Hygroscopic

### Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

CAS #	Chemical Name	Jurisdiction	Recommended Exposure Limits	Notations
64-17-5	Ethyl alcohol	ACGIH TLV	TLV: 1000 ppm	
		France VL	TWA: 1900 mg/m3 (1000 ppm) STEL: 9500 mg/m3 (5000 ppm)	
		OSHA PELs	PEL: 1000 ppm	
		Britain EH40	TWA: 1920 mg/m3 (1000 ppm) STEL: ()	

**8.2 Exposure Controls:**

- 8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.
- 8.2.2 Personal protection equipment:**
- Eye Protection:** Safety glasses
- Protective Gloves:** Compatible chemical-resistant gloves
- Other Protective Clothing:** Lab coat
- Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.
- Work/Hygienic/Maintenance Practices:** Do not take internally.  
Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.  
Wash thoroughly after handling.  
No data available.

### Section 9. Physical and Chemical Properties

**9.1 Information on Basic Physical and Chemical Properties**

- Physical States:** [ ] Gas [X] Liquid [ ] Solid
- Appearance and Odor:** 1.5 ml of 400 µM AMC Arachidonoyl amide
- pH:** No data.
- Melting Point:** No data.
- Boiling Point:** No data.
- Flash Pt:** 14.00 C Method Used: Closed Cup
- Evaporation Rate:** No data.
- Flammability (solid, gas):** No data available.
- Explosive Limits:** LEL: 3.3% at 25.0 C UEL: 19.0% at 25.0 C
- Vapor Pressure (vs. Air or mm Hg):** 43 MM\_HG at 20.0 C
- Vapor Density (vs. Air = 1):** No data.

<b>Specific Gravity (Water = 1):</b>	No data.
<b>Solubility in Water:</b>	No data.
<b>Octanol/Water Partition Coefficient:</b>	No data.
<b>Autoignition Pt:</b>	363.00 C
<b>Decomposition Temperature:</b>	No data.
<b>Viscosity:</b>	No data.
<b>9.2 Other Information</b>	
<b>Percent Volatile:</b>	No data.

**Section 10. Stability and Reactivity**

<b>10.1 Reactivity:</b>	No data available.
<b>10.2 Stability:</b>	Unstable [ ] Stable [ X ]
<b>10.3 Stability Note(s):</b>	Stable if stored in accordance with information listed on the product insert.
<b>Polymerization:</b>	Will occur [ ] Will not occur [ X ]
<b>10.4 Conditions To Avoid:</b>	heat, flames and sparks
<b>10.5 Incompatibility - Materials To Avoid:</b>	alkali metals ammonia peroxides strong oxidizing agents
<b>10.6 Hazardous Decomposition or Byproducts:</b>	carbon dioxide carbon monoxide

**Section 11. Toxicological Information**

<b>11.1 Information on Toxicological Effects:</b>	The toxicological effects of this product have not been thoroughly studied.
<b>Chronic Toxicological Effects:</b>	Ethanol - Toxicity Data: Oral TDLO (man): 1.14 ml/kg; Oral TDLO (man): 650 mg/kg; Oral LD50 (rat): 7,060 mg/kg; Oral LD50 (mouse): 3,450 mg/kg; Oral LD50 (mouse): 10.5 ml/kg; Oral LD50 (rabbit): 6,300 mg/kg; Inhalation LC50 (rat): 20,000 ppm (10h); Inhalation TCLO (human): 1,800 ppm (30m); Inhalation TCLO (human): 2,500 mg/m <sup>3</sup> (20m); Inhalation LC50 (rat): 5,900 mg/m <sup>3</sup> (6h); Inhalation LCLO (mouse): 29,300 ppm (7h); Ethanol - Irritation Data: Eyes (rabbit): 500 mg (24h) mild; Skin (rabbit): 20 mg (24h) moderate; Ethanol - Investigated as a drug, mutagen, natural product, primary irritant, reproductive effector, and tumorigen. Only select Registry of Toxic Effects of Chemical Substances (RTECS) data is presented here. See actual entry in RTECS for complete information. Ethanol RTECS Number: KQ6300000

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
NA	AMC Arachidonoyl Amide	n.a.	n.a.	n.a.	n.a.
64-17-5	Ethyl alcohol	n.a.	1	A4	n.a.

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 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:** No data available.
- 12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

- 13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Ethyl Alcohol Solution  
**DOT Hazard Class:** 3 FLAMMABLE LIQUID  
**UN/NA Number:** UN1170 **Packing Group:** II



**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Ethyl Alcohol Solution  
**UN Number:** 1170 **Packing Group:** II  
**Hazard Class:** 3 - FLAMMABLE LIQUID

**14.3 AIR TRANSPORT (ICAO/IATA):**

**ICAO/IATA Shipping Name:** Ethyl Alcohol Solution  
**UN Number:** 1170 **Packing Group:** II  
**Hazard Class:** 3 - FLAMMABLE LIQUID **IATA Classification:** 3

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.  
 When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10.  
 Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

### Section 15. Regulatory Information

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

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
NA	AMC Arachidonoyl Amide	No	No	No
64-17-5	Ethyl alcohol	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
NA	AMC Arachidonoyl Amide	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No
64-17-5	Ethyl alcohol	CAA HAP,ODC: No; CWA NPDES: No; TSCA: Yes -



# SAFETY DATA SHEET

## FAAH Substrate

Revision: 10/30/2019  
Supersedes Revision: 06/06/2017

Inventory; CA PROP.65: No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

### Section 16. Other Information

**Revision Date:** 10/30/2019

**Additional Information About This Product:** No data available.

**This Product:**

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.



according to Regulation (EC) No. 1907/2006 as amended by (EC) No. 2015/830 and US OSHA HCS 2015

### Section 1. Identification of the Substance/Mixture and of the Company/Undertaking

- 1.1 Product Code:** 700307  
**Product Name:** JZL 195 Inhibitor Assay Reagent  
**Synonyms:** 4-nitrophenyl 4-(3-phenoxybenzyl)piperazine-1-carboxylate;
- 1.2 Relevant identified uses of the substance or mixture and uses advised against:**  
**Relevant identified uses:** For research use only, not for human or veterinary use.
- 1.3 Details of the Supplier of the Safety Data Sheet:**  
**Company Name:** Cayman Chemical Company  
 1180 E. Ellsworth Rd.  
 Ann Arbor, MI 48108  
**Web site address:** www.caymanchem.com  
**Information:** Cayman Chemical Company +1 (734)971-3335
- 1.4 Emergency telephone number:**  
**Emergency Contact:** CHEMTREC Within USA and Canada: +1 (800)424-9300  
 CHEMTREC Outside USA and Canada: +1 (703)527-3887

### Section 2. Hazards Identification

**2.1 Classification of the Substance or Mixture:**

**Aquatic Toxicity (Acute), Category 1**  
**Aquatic Toxicity (Chronic), Category 1**

**2.2 Label Elements:**



**GHS Signal Word:** **Warning**

**GHS Hazard Phrases:**

H400: Very toxic to aquatic life.  
 H410: Very toxic to aquatic life with long lasting effects.

**GHS Precautionary Phrases:**

P273: Avoid release to the environment.

**GHS Response Phrases:**

P391: Collect spillage.

**GHS Storage and Disposal Phrases:**

Please refer to Section 7 for Storage and Section 13 for Disposal information.

- 2.3 Adverse Human Health** Material may be irritating to the mucous membranes and upper respiratory tract.  
**Effects and Symptoms:** May be harmful by inhalation, ingestion, or skin absorption.  
 May cause eye, skin, or respiratory system irritation.  
 Very toxic to aquatic life with long lasting effects.  
 To the best of our knowledge, the toxicological properties have not been thoroughly investigated.

### Section 3. Composition/Information on Ingredients

CAS # / RTECS #	Hazardous Components (Chemical Name)/ REACH Registration No.	Concentration	EC No./ EC Index No.	GHS Classification
1210004-12-8 NA	JZL 195	100.0 %	NA NA	Aquatic (A) 1: H400 Aquatic (C) 1: H410

### Section 4. First Aid Measures

- 4.1 Description of First Aid Measures:**
- In Case of Inhalation:** Remove to fresh air. If not breathing, give artificial respiration or give oxygen by trained personnel. Get immediate medical attention.
- In Case of Skin Contact:** Immediately wash skin with soap and plenty of water for at least 15 minutes. Remove contaminated clothing. Get medical attention if symptoms occur. Wash clothing before reuse.
- In Case of Eye Contact:** Hold eyelids apart and flush eyes with plenty of water for at least 15 minutes. Have eyes examined and tested by medical personnel.
- In Case of Ingestion:** Wash out mouth with water provided person is conscious. Never give anything by mouth to an unconscious person. Get medical attention. Do NOT induce vomiting unless directed to do so by medical personnel.

### Section 5. Fire Fighting Measures

- 5.1 Suitable Extinguishing Media:** Use alcohol-resistant foam, carbon dioxide, water, or dry chemical spray. Use water spray to cool fire-exposed containers.
- Unsuitable Extinguishing Media:** A solid water stream may be inefficient.
- 5.2 Flammable Properties and Hazards:** No data available.
- Flash Pt:** No data.
- Explosive Limits:** LEL: No data. UEL: No data.
- Autoignition Pt:** No data.
- 5.3 Fire Fighting Instructions:** As in any fire, wear self-contained breathing apparatus pressure-demand (NIOSH approved or equivalent), and full protective gear to prevent contact with skin and eyes.

### Section 6. Accidental Release Measures

- 6.1 Protective Precautions, Protective Equipment and Emergency Procedures:** Avoid raising and breathing dust, and provide adequate ventilation. As conditions warrant, wear a NIOSH approved self-contained breathing apparatus, or respirator, and appropriate personal protection (rubber boots, safety goggles, and heavy rubber gloves).
- 6.2 Environmental Precautions:** Take steps to avoid release into the environment, if safe to do so.
- 6.3 Methods and Material For Containment and Cleaning Up:** Contain spill and collect, as appropriate. Transfer to a chemical waste container for disposal in accordance with local regulations.

### Section 7. Handling and Storage

- 7.1 Precautions To Be Taken in Handling:** Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid prolonged or repeated exposure.
- 7.2 Precautions To Be Taken in Storing:** Keep container tightly closed. Store in accordance with information listed on the product insert.

## Section 8. Exposure Controls/Personal Protection

**8.1 Exposure Parameters:**

**8.2 Exposure Controls:**

**8.2.1 Engineering Controls (Ventilation etc.):** Use process enclosures, local exhaust ventilation, or other engineering controls to control airborne levels below recommended exposure limits.

**8.2.2 Personal protection equipment:**

**Eye Protection:** Safety glasses

**Protective Gloves:** Compatible chemical-resistant gloves

**Other Protective Clothing:** Lab coat

**Respiratory Equipment (Specify Type):** NIOSH approved respirator, as conditions warrant.

**Work/Hygienic/Maintenance Practices:** Do not take internally.

Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Wash thoroughly after handling.

No data available.

## Section 9. Physical and Chemical Properties

**9.1 Information on Basic Physical and Chemical Properties**

**Physical States:** [ ] Gas [ ] Liquid [ X ] Solid

**Appearance and Odor:** A lyophilized residue

**pH:** No data.

**Melting Point:** No data.

**Boiling Point:** No data.

**Flash Pt:** No data.

**Evaporation Rate:** No data.

**Flammability (solid, gas):** No data available.

**Explosive Limits:** LEL: No data. UEL: No data.

**Vapor Pressure (vs. Air or mm Hg):** No data.

**Vapor Density (vs. Air = 1):** No data.

**Specific Gravity (Water = 1):** No data.

**Solubility in Water:** No data.

**Octanol/Water Partition Coefficient:** No data.

**Autoignition Pt:** No data.

**Decomposition Temperature:** No data.

**Viscosity:** No data.

**9.2 Other Information**

**Percent Volatile:** No data.

**Molecular Formula & Weight:** C<sub>24</sub>H<sub>23</sub>N<sub>3</sub>O<sub>5</sub> 433.5



# SAFETY DATA SHEET

## JZL 195 Inhibitor Assay Reagent

### Section 10. Stability and Reactivity

- 10.1 Reactivity:** No data available.
- 10.2 Stability:** Unstable [ ] Stable [ X ]
- 10.3 Stability Note(s):** Stable if stored in accordance with information listed on the product insert.
- Polymerization:** Will occur [ ] Will not occur [ X ]
- 10.4 Conditions To Avoid:** No data available.
- 10.5 Incompatibility - Materials To Avoid:** strong oxidizing agents
- 10.6 Hazardous Decomposition or Byproducts:** carbon dioxide  
carbon monoxide  
nitrogen oxides

### Section 11. Toxicological Information

- 11.1 Information on Toxicological Effects:** The toxicological effects of this product have not been thoroughly studied.

CAS #	Hazardous Components (Chemical Name)	NTP	IARC	ACGIH	OSHA
1210004-12-8	JZL 195	n.a.	n.a.	n.a.	n.a.

### Section 12. Ecological Information

- 12.1 Toxicity:** Avoid release into the environment.  
Runoff from fire control or dilution water may cause pollution.
- 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:** No data available.
- 12.6 Other adverse effects:** No data available.

### Section 13. Disposal Considerations

- 13.1 Waste Disposal Method:** Dispose in accordance with local, state, and federal regulations.

### Section 14. Transport Information

**14.1 LAND TRANSPORT (US DOT):**

**DOT Proper Shipping Name:** Not dangerous goods.  
**DOT Hazard Class:**  
**UN/NA Number:**

**14.1 LAND TRANSPORT (European ADR/RID):**

**ADR/RID Shipping Name:** Environmentally hazardous substances, solid, n.o.s.  
**UN Number:** 3077 **Packing Group:** III  
**Hazard Class:** 9 - CLASS 9



# SAFETY DATA SHEET

## JZL 195 Inhibitor Assay Reagent

Revision: 10/30/2019  
Supersedes Revision: 06/06/2017

### 14.3 AIR TRANSPORT (ICAO/IATA):

**ICAO/IATA Shipping Name:** Environmentally hazardous substances, solid, n.o.s.  
**UN Number:** 3077 **Packing Group:** III  
**Hazard Class:** 9 - CLASS 9 **IATA Classification:** 9

**Additional Transport Information:** Transport in accordance with local, state, and federal regulations.  
When sold in quantities of less than or equal to 1 mL, or 1 g, with an Excepted Quantity Code of E1, E2, E4, or E5, this item meets the De Minimis Quantities exemption, per IATA 2.6.10.  
Therefore packaging does not have to be labeled as Dangerous Goods/Excepted Quantity.

## Section 15. Regulatory Information

### EPA SARA (Superfund Amendments and Reauthorization Act of 1986) Lists

CAS #	Hazardous Components (Chemical Name)	S. 302 (EHS)	S. 304 RQ	S. 313 (TRI)
1210004-12-8	JZL 195	No	No	No

CAS #	Hazardous Components (Chemical Name)	Other US EPA or State Lists
1210004-12-8	JZL 195	CAA HAP,ODC: No; CWA NPDES: No; TSCA: No; CA PROP.65: No

**Regulatory Information Statement:** This SDS was prepared in accordance with 29 CFR 1910.1200 and Regulation (EC) No.1272/2008.

## Section 16. Other Information

**Revision Date:** 10/30/2019

**Additional Information About This Product:** No data available.

**Company Policy or Disclaimer:** DISCLAIMER: This information is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use. Users should make their own investigations to determine the suitability of the information for their particular purposes.