

**1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**1.1 Product identifiers**

Product Name: MAFP  
Catalog Number: 1421  
CAS Number: 188404-10-6  
IUPAC Name: (5Z,8Z,11Z,14Z)-5,8,11,14-eicosatetraenyl-methyl ester phosphonofluoridic acid

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

Identified Uses: Laboratory chemicals, Manufacture of substances

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

Company:	Tocris Bioscience	Telephone:	+ 44 (0)117 916-3333
	The Watkins Building,	Fax:	+ 44 (0)117 916-3344
	Atlantic Road,	Internet:	<a href="http://www.tocris.com">www.tocris.com</a>
	Bristol, BS11 9QD, UK	E-mail address:	<a href="mailto:info@bio-techne.com">info@bio-techne.com</a>

**1.4 Emergency Telephone number**

For chemical emergency spill, leak, fire, exposure, or accident call CHEMTREC day or night:  
Within USA and Canada: 1-800-424-9300. Outside USA and Canada: +1 703-527-3887 (collect calls accepted).

**2. HAZARDS IDENTIFICATION**

**2.1 Classification of the substance or mixture**

**Classification according to Regulation (EC) No 1272/2008 [GHS/CLP]**

Flammable liquids - Category 2  
Serious eye damage/eye irritation - Category 2  
Specific Target Organ Toxicity, SE, Narcotic Effects - Category 3

**2.2 Label elements**

**Labeling according to Regulation (EC) No 1272/2008 [CLP]**

Pictogram(s):



Signal word: Danger

Hazard statement(s):

H225 Highly Flammable liquid and vapour  
H319 Causes serious eye irritation  
H336 May cause drowsiness or dizziness

Precautionary statement(s):

P260 Do not breathe dust/fume/gas/mist/vapours/spray  
P264 Wash hands thoroughly after handling  
P280 Wear protective gloves/protective clothing/eye protection/face protection  
P303+361+353 IF ON SKIN (or hair): Remove/take off immediately all contaminated clothing. Rinse skin with water/shower  
P304+340 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
P305+351+338 IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do so - continue rinsing

Supplemental Hazard Statements:

EUH066 Repeated exposure may cause skin dryness or cracking

**2.3 Other hazards - none**

**3. COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2 Mixtures**

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component	Cas No.	EC No.	Index No.	Classification	Conc.
Methyl acetate	79-20-9	201-185-2	607-021-00-X	R11, R22, R36, R67 H225, H319, H336, H302	99% (w/v)

**4. FIRST AID MEASURES**

#### 4.1 Description of first aid measures

##### General advice

Consult a doctor and show this safety data sheet.

##### If inhaled

Remove to fresh air and monitor breathing. If breathing becomes difficult, give oxygen. If breathing stops, give artificial respiration. Consult a doctor.

##### In case of skin contact

Immediately wash skin with copious amounts of soap and water for at least 15 minutes. Remove contaminated clothing and shoes and wash before reuse. Consult a doctor.

##### In case of eye contact

Flush with copious amounts of water for at least 15 minutes. Consult a doctor.

##### If swallowed

Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Consult a doctor.

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

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

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

Show this safety data sheet to the doctor in attendance. Immediate medical attention is required.

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### 5. FIRE-FIGHTING MEASURES

#### 5.1 Extinguishing media

##### Suitable extinguishing media

Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

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

In combustion, may emit toxic fumes.

#### 5.3 Precautions for fire-fighters

Wear suitable protective clothing to prevent contact with skin and eyes and self-contained breathing apparatus.

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### 6. ACCIDENTIAL RELEASE MEASURES

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

Do not take action without suitable protective clothing - see section 8 of SDS. Evacuate personnel to safe areas. Ensure adequate ventilation. Avoid breathing vapors, mist, dust or gas.

#### 6.2 Environmental precautions

Do not let product enter drains.

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

Cover spillage with suitable absorbent material. Sweep up material and place in an appropriate container. Hold all material for appropriate disposal as described under section 13 of SDS.

#### 6.4 Reference to other sections

For required PPE see section 8. For disposal see section 13.

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### 7. HANDLING AND STORAGE

#### 7.1 Precautions for safe handling

Use in a chemical fume hood, with air supplied by an independent system. Avoid inhalation, contact with eyes, skin and clothing. Avoid the formation of dust and aerosols. Use in a well-ventilated area. Keep away from sources of ignition. Avoid prolonged or repeated exposure.

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

Store in cool, well-ventilated area. Keep away from direct sunlight. Keep container tightly sealed until ready for use. Recommended storage temperature: Desiccate at -80°C

#### 7.3 Specific end uses

Use in a laboratory fume hood where possible. Refer to employer's COSHH risk assessment.

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### 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

#### 8.1 Control parameters

##### Components with workplace control parameters

Component	CAS No.	Workplace Exposure Limits			
		8 Hour TWA		15 min STEL	
		ppm	mg.m <sup>-3</sup>	ppm	mg.m <sup>-3</sup>
Methyl acetate	79-20-9	200	616	250	770

## 8.2 Exposure controls

### Appropriate engineering controls

Use in a fume hood where applicable. Ensure all engineering measures described under section 7 of SDS are in place. Ensure laboratory is equipped with a safety shower and eye wash station.

### Personal protective equipment

#### Eye/face protection

Use appropriate safety glasses.

#### Skin protection

Use appropriate chemical resistant gloves (minimum requirement use standard BS EN 374:2003). Gloves should be inspected before use. Wash and dry hands thoroughly after handling.

#### Body protection

Wear appropriate protective clothing.

#### Respiratory protection

If risk assessment indicates necessary, use a suitable respirator.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 Information on basic physical and chemical properties

Appearance	Colourless liquid	Vapor pressure	No data available
Odor	No data available	Vapor density	No data available
Odor threshold	No data available	Relative density	No data available
pH	No data available	Solubility(ies)	Soluble in methyl acetate (supplied pre-dissolved -10mg/ml)
Melting / freezing point	No data available	Partition coefficient	No data available
Boiling point / range	No data available	Auto-ignition temperature	No data available
Flash point	No data available	Decomposition temperature	No data available
Evaporation rate	No data available	Viscosity	No data available
Flammability (solid, gas)	No data available	Explosive properties	No data available
Upper / lower flammability or explosive limits	No data available	Oxidising properties	No data available

### 9.2 Other safety information

No data available

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## 10. STABILITY AND REACTIVITY

### 10.1 Reactivity

Stable under recommended transport or storage conditions.

### 10.2 Chemical stability

Stable under recommended storage conditions.

### 10.3 Possibility of hazardous reactions

Hazardous reactions will not occur under normal transport or storage conditions. Decomposition may occur on exposure to conditions or materials listed below.

### 10.4 Conditions to avoid

Heat, moisture.

### 10.5 Incompatible materials

Strong acids/alkalis, strong oxidising/reducing agents.

### 10.6 Hazardous decomposition products

In combustion may emit toxic fumes. No known decomposition information.

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## 11. TOXICOLOGICAL INFORMATION

### 11.1 Information on toxicological effects

#### Acute Toxicity

(Data refers to methyl acetate) ORL-RAT LD50: >5gm/kg; IHL-RAT LCLo: 32000ppm/4H

#### Skin corrosion/irritation

Classified based on available data

#### Serious eye damage/irritation

Classified based on available data

#### Respiratory or skin sensitization

Classified based on available data

#### Germ cell mutagenicity

Classified based on available data

**Carcinogenicity**

Classified based on available data

**Reproductive toxicity**

Classified based on available data

**Specific target organ toxicity - single exposure**

Classified based on available data

**Specific target organ toxicity - repeated exposure**

Classified based on available data

**Aspiration hazard**

Classified based on available data

**Symptoms / Routes of exposure**

**Inhalation:** There may be shortness of breath with a burning sensation in the throat. Exposure may cause coughing or wheezing. Absorption through the lungs can occur causing symptoms similar to those of ingestion. There may be shortness of breath.

**Ingestion:** There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur. Blood may be vomited. There may be vomiting and diarrhea.

**Skin:** Irritation or pain may occur at the site of contact. There may be redness or whiteness of the skin in the area of exposure. Absorption through the skin may be harmful.

**Eyes:** There may be pain and redness. The vision may become blurred. The eyes may water profusely. Absorption through the eye may cause effects similar to skin contact and/or ingestion.

**Delayed / Immediate Effects:** Immediate effects can be expected after short-term exposure.

**Additional Information**

RTECS No: (Methyl Acetate: A19100000)

Exposure may cause irritation of eyes, mucous membranes, upper respiratory tract and skin.

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

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**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**

No data available

**12.6 Other adverse effects**

No data available

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**13. DISPOSAL CONSIDERATIONS****13.1 Waste treatment methods****Product**

Transfer to a suitable container and arrange for collection by specialized disposal company in accordance with National legislation.

**Contaminated packaging**

Dispose of in a regulated landfill site or other method for hazardous or toxic wastes in accordance with National legislation.

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**14. TRANSPORT INFORMATION**

Classified according to the criteria of the UN Model Regulations as reflected in the IMDG Code, ADR, RID and IATA.

**14.1 UN-Number**

UN1231

**14.2 UN proper shipping name**

Methyl acetate solution

**14.3 Transport hazard class(es)**

3

**14.4 Packaging group**

II

**14.5 Environmental hazards**

This product is not classified as environmentally hazardous according to the UN Model Regulations, nor a marine pollutant according to the IMDG Code.

#### **14.6 Special precautions for users**

No data available

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### **15. REGULATORY INFORMATION**

This safety datasheet complies with the requirements of Regulation (EC) No. 453/2010.

#### **15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture**

No data available

##### **California Proposition 65**

Not applicable

#### **15.2 Chemical safety assessment**

A Chemical Safety Assessment has not been made for this product.

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### **16. OTHER INFORMATION**

#### **Further Information**

Copyright © 2020 Tocris Bioscience. This company shall not be held liable for any damage resulting from handling or from contact with the above product. This material must only be handled by suitably qualified experienced scientists in appropriately equipped and authorized facilities. The above information is believed to be correct but does not purport to be all inclusive and should be used as a guide only for experienced personnel. Always consult your safety advisor and follow appropriate local and national safety legislature. The absence of warning must not, under any circumstance, be taken to mean that no hazard exists.

End of safety data sheet