

# SAFETY DATA SHEETS

According to Globally Harmonized System of Classification and Labelling of Chemicals (GHS) - Sixth revised edition

Version: 1.0

Creation Date: Aug 20, 2017

Revision Date: Aug 20, 2017

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## 1. Identification

### 1.1 GHS Product identifier

Product name methyl  
(1S,3S,4S,5R)-3-(4-fluorophenyl)-8-methyl-8-azabicyclo[3.2.1]octane-4-carboxylate

### 1.2 Other means of identification

Product number -  
Other names 2-Cmft

### 1.3 Recommended use of the chemical and restrictions on use

Identified uses For industry use only.  
Uses advised against no data available

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## 2. Hazard identification

### 2.1 Classification of the substance or mixture

Acute toxicity - Oral, Category 2  
Acute toxicity - Dermal, Category 2  
Skin sensitization, Category 1  
Acute toxicity - Inhalation, Category 2  
Reproductive toxicity, Category 2

### 2.2 GHS label elements, including precautionary statements

Pictogram(s)



Signal word

Danger

Hazard statement(s)	<p>H300 Fatal if swallowed</p> <p>H310 Fatal in contact with skin</p> <p>H317 May cause an allergic skin reaction</p> <p>H330 Fatal if inhaled</p> <p>H361 Suspected of damaging fertility or the unborn child</p>
Precautionary statement(s)	
Prevention	<p>P264 Wash ... thoroughly after handling.</p> <p>P270 Do not eat, drink or smoke when using this product.</p> <p>P262 Do not get in eyes, on skin, or on clothing.</p> <p>P280 Wear protective gloves/protective clothing/eye protection/face protection.</p> <p>P261 Avoid breathing dust/fume/gas/mist/vapours/spray.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P260 Do not breathe dust/fume/gas/mist/vapours/spray.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P284 [In case of inadequate ventilation] wear respiratory protection.</p> <p>P201 Obtain special instructions before use.</p> <p>P202 Do not handle until all safety precautions have been read and understood.</p>
Response	<p>P301+P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor/...</p> <p>P321 Specific treatment (see ... on this label).</p> <p>P330 Rinse mouth.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water/...</p> <p>P310 Immediately call a POISON CENTER/doctor/...</p> <p>P361+P364 Take off immediately all contaminated clothing and wash it before reuse.</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P320 Specific treatment is urgent (see ... on this label).</p> <p>P308+P313 IF exposed or concerned: Get medical advice/attention.</p>

Storage	P405 Store locked up. P403+P233 Store in a well-ventilated place. Keep container tightly closed.
Disposal	P501 Dispose of contents/container to ...

### 2.3 Other hazards which do not result in classification

none

## 3. Composition/information on ingredients

### 3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
methyl (1S,3S,4S,5R)-3-(4-fluorophenyl)-8-methyl-8-azabicyclo[3.2.1]octane-4-carboxylate	methyl (1S,3S,4S,5R)-3-(4-fluorophenyl)-8-methyl-8-azabicyclo[3.2.1]octane-4-carboxylate	50370-56-4	none	100%

## 4. First-aid measures

### 4.1 Description of necessary first-aid measures

#### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

#### In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

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

no data available

### 4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

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## **5.Fire-fighting measures**

### **5.1Extinguishing media**

#### **Suitable extinguishing media**

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

### **5.2Specific hazards arising from the chemical**

no data available

### **5.3Special protective actions for fire-fighters**

Wear self-contained breathing apparatus for firefighting if necessary.

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## **6.Accidental release measures**

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

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

### **6.2Environmental precautions**

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

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

Pick up and arrange disposal. Sweep up and shovel. Keep in suitable, closed containers for disposal.

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## **7.Handling and storage**

### **7.1Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Avoid exposure - obtain special instructions before use. Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2.

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

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

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## **8.Exposure controls/personal protection**

### **8.1Control parameters**

#### **Occupational Exposure limit values**

no data available

### **Biological limit values**

no data available

## **8.2 Appropriate engineering controls**

Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

## **8.3 Individual protection measures, such as personal protective equipment (PPE)**

### **Eye/face protection**

Safety glasses with side-shields conforming to EN166. Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

### **Skin protection**

Wear impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace. Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

### **Respiratory protection**

Wear dust mask when handling large quantities.

### **Thermal hazards**

no data available

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## **9. Physical and chemical properties**

Physical state	white solid
Colour	no data available
Odour	no data available
Melting point/ freezing point	91-92°C
Boiling point or initial boiling point and boiling range	349.3°C at 760 mmHg
Flammability	no data available
Lower and upper explosion limit / flammability limit	no data available
Flash point	165.1°C
Auto-ignition temperature	no data available
Decomposition temperature	no data available

pH	no data available
Kinematic viscosity	no data available
Solubility	no data available
Partition coefficient n-octanol/water (log value)	no data available
Vapour pressure	no data available
Density and/or relative density	1.155 g/cm <sup>3</sup>
Relative vapour density	no data available
Particle characteristics	no data available

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## **10. Stability and reactivity**

### **10.1 Reactivity**

no data available

### **10.2 Chemical stability**

Stable under recommended storage conditions.

### **10.3 Possibility of hazardous reactions**

no data available

### **10.4 Conditions to avoid**

no data available

### **10.5 Incompatible materials**

no data available

### **10.6 Hazardous decomposition products**

no data available

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## **11. Toxicological information**

### **Acute toxicity**

- Oral: no data available
- Inhalation: no data available
- Dermal: no data available

### **Skin corrosion/irritation**

no data available

### **Serious eye damage/irritation**

no data available

### **Respiratory or skin sensitization**

no data available

**Germ cell mutagenicity**

no data available

**Carcinogenicity**

no data available

**Reproductive toxicity**

no data available

**STOT-single exposure**

no data available

**STOT-repeated exposure**

no data available

**Aspiration hazard**

no data available

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**12. Ecological information****12.1 Toxicity**

- Toxicity to fish: no data available
- Toxicity to daphnia and other aquatic invertebrates: no data available
- Toxicity to algae: no data available
- Toxicity to microorganisms: 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 Other adverse effects**

no data available

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**13. Disposal considerations****13.1 Disposal methods****Product**

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate

water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

### Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

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## 14. Transport information

### 14.1 UN Number

ADR/RID: UN1544

IMDG: UN1544

IATA: UN1544

### 14.2 UN Proper Shipping Name

ADR/RID: ALKALOIDS, SOLID, N.O.S. or ALKALOID SALTS, SOLID, N.O.S.

IMDG: ALKALOIDS, SOLID, N.O.S. or ALKALOID SALTS, SOLID, N.O.S.

IATA: ALKALOIDS, SOLID, N.O.S. or ALKALOID SALTS, SOLID, N.O.S.

### 14.3 Transport hazard class(es)

ADR/RID: 6

IMDG: 6

IATA: 6

### 14.4 Packing group, if applicable

ADR/RID: unknown

IMDG: unknown

IATA: unknown

### 14.5 Environmental hazards

ADR/RID: no

IMDG: no

IATA: no

### 14.6 Special precautions for user

no data available

### 14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

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## 15. Regulatory information

### 15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
methyl (1S,3S,4S,5R)-3-(4-fluorophenyl)-8-methyl-8-azabicyclo[3.2.1]octane-4-carboxylate	methyl (1S,3S,4S,5R)-3-(4-fluorophenyl)-8-methyl-8-azabicyclo[3.2.1]octane-4-carboxylate	50370-56-4	none



European Inventory of Existing Commercial Chemical Substances (EINECS)	Not Listed.
EC Inventory	Not Listed.
United States Toxic Substances Control Act (TSCA) Inventory	Not Listed.
China Catalog of Hazardous chemicals 2015	Not Listed.
New Zealand Inventory of Chemicals (NZIoC)	Not Listed.
Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Not Listed.
Vietnam National Chemical Inventory	Not Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)	Not Listed.

## 16. Other information

### Information on revision

Creation Date                      Aug 20, 2017  
Revision Date                        Aug 20, 2017

### Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

### References

- IPCS - The International Chemical Safety Cards (ICSC), website: <http://www.ilo.org/dyn/icsc/showcard.home>
- HSDB - Hazardous Substances Data Bank, website: <https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm>
- IARC - International Agency for Research on Cancer, website: <http://www.iarc.fr/>
- eChemPortal - The Global Portal to Information on Chemical Substances by OECD, website: [http://www.echemportal.org/echemportal/index?pageID=0&request\\_locale=en](http://www.echemportal.org/echemportal/index?pageID=0&request_locale=en)
- CAMEO Chemicals, website: <http://cameochemicals.noaa.gov/search/simple>
- ChemIDplus, website: <http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp>
- ERG - Emergency Response Guidebook by U.S. Department of Transportation, website: <http://www.phmsa.dot.gov/hazmat/library/erg>
- Germany GESTIS-database on hazard substance, website: <http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp>

- ECHA - European Chemicals Agency, website: <https://echa.europa.eu/>