

METHYL 4-BROMO-2-(TRIFLUOROMETHOXY)BENZOATE

Page: 1 Compilation date: 16/12/2013 Revision No: 1

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

#### 1.1. Product identifier

Product name: METHYL 4-BROMO-2-(TRIFLUOROMETHOXY)BENZOATE

CAS number: 933785-18-3

Product code: PC49082

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

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

| Company name: | Apollo Scientific Ltd                  |
|---------------|--|
|               | Units 3 & 4                            |
|               | Parkway                                |
|               | Denton                                 |
|               | Manchester                             |
|               | M34 3SG                                |
|               | UK                                     |
| Tel:          | 0161 337 9971                          |
| Fax:          | 0161 336 6932                          |
| Email:        | david.tideswell@apolloscientific.co.uk |

## 1.4. Emergency telephone number

#### Section 2: Hazards identification

| 2.1. Classification of the substance or mixture |   |        |
|---|---|--------|
| Classification under CHIP:                      | Xn: R20/21/22; Xi: R36/37/38  |        |
| Classification under CLP:                       | Acute Tox. 4: H302+312+332; STOT SE 3: H335; Eye Irrit. 2: H319; Skin Irrit. 2: H315          |        |
| Most important adverse effects:                 | Harmful by inhalation, in contact with skin and if swallowed. Irritating to eyes, respiratory |        |
|   | system and skin.  |        |
| 2.2. Label elements                             |   |        |
| Label elements under CLP:                       |   |        |
| Hazard statements:                              | H302+312+332: Harmful if swallowed, in contact with skin or if inhaled.                       |        |
|   | H315: Causes skin irritation.   |        |
|   | H319: Causes serious eye irritation.  |        |
|   | H335: May cause respiratory irritation.   |        |
| Signal words:                                   | Warning   |        |
| Hazard pictograms:                              | GHS07: Exclamation mark   |        |
|   |   | [cont] |

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Precautionary statements: P280: Wear protective gloves/protective clothing/eye protection/face protection.

Label elements under CHIP:

Hazard symbols: Harmful.



Risk phrases: R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.

R36/37/38: Irritating to eyes, respiratory system and skin.

2.3. Other hazards

PBT: This substance is not identified as a PBT substance.

## Section 3: Composition/information on ingredients

#### 3.1. Substances

Chemical identity: METHYL 4-BROMO-2-(TRIFLUOROMETHOXY)BENZOATE

## Section 4: First aid measures

#### 4.1. Description of first aid measures

| Skin contact:   | Remove all contaminated clothes and footwear immediately unless stuck to skin.  |  |  |
|---|---|--|--|
|   | Drench the affected skin with running water for 10 minutes or longer if substance is still  |  |  |
|   | on skin. Consult a doctor.  |  |  |
| Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor. |   |  |  |
| Ingestion:  | Wash out mouth with water. Do not induce vomiting. If conscious, give half a litre of water                                       |  |  |
|   | to drink immediately. Consult a doctor.   |  |  |
| Inhalation:   | Remove casualty from exposure ensuring one's own safety whilst doing so. Consult a  |  |  |
|   | doctor.   |  |  |
| 4.2. Most important symptoms and effects, both acute and delayed                |   |  |  |
|   |   |  |  |
| Skin contact:   | There may be irritation and redness at the site of contact.   |  |  |
|   |   |  |  |
| Eye contact:  | There may be irritation and redness at the site of contact.   |  |  |
| Eye contact:  | There may be irritation and redness at the site of contact.<br>There may be irritation and redness. The eyes may water profusely. |  |  |

4.3. Indication of any immediate medical attention and special treatment needed

## Section 5: Fire-fighting measures

#### 5.1. Extinguishing media

**Extinguishing media:** Carbon dioxide, dry chemical powder, foam. Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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|---------------------------------------|--|-------|
| 5.2. Special hazards arising from     | n the substance or mixture   |       |
| Exposure hazards:                     | In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Hydrogen fluoride       |       |
|                                       | (HF). Hydrogen bromide (HBr).  |       |
| 5.3. Advice for fire-fighters         |  |       |
| Advice for fire-fighters:             | Wear self-contained breathing apparatus. Wear protective clothing to prevent contact         |       |
| -                                     | with skin and eyes.  |       |
| ection 6: Accidental release m        | -  |       |
| 6.1. Personal precautions, prote      | ective equipment and emergency procedures  |       |
| · · · · · · · · · · · · · · · · · · · |  |       |
| Personal precautions.                 | Refer to section 8 of SDS for personal protection details. If outside do not approach from   |       |
|                                       | downwind. If outside keep bystanders upwind and away from danger point. Mark out the         |       |
|                                       | contaminated area with signs and prevent access to unauthorised personnel. Turn              |       |
|                                       | leaking containers leak-side up to prevent the escape of liquid.                             |       |
| 6.2. Environmental precautions        |  |       |
| Environmental precautions:            | Do not discharge into drains or rivers. Contain the spillage using bunding.                  |       |
| 6.3. Methods and material for co      | ontainment and cleaning up   |       |
| Clean-up procedures:                  | Absorb into dry earth or sand. Transfer to a closable, labelled salvage container for        |       |
|                                       | disposal by an appropriate method.   |       |
| 6.4. Reference to other sections      | ŝ  |       |
| Section 7: Handling and storage       | e  |       |
|                                       |  |       |
| 7.1. Precautions for safe handlin     | 1g   |       |
| Handling requirements:                | Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area. |       |
|                                       | Do not handle in a confined space. Avoid the formation or spread of mists in the air. Only   |       |
|                                       | use in fume hood.  |       |
| 7.2. Conditions for safe storage      | e, including any incompatibilities   |       |
| Storage conditions:                   | Store in cool, well ventilated area. Keep container tightly closed. Light Sensitive.         |       |
|                                       | Must only be kept in original packaging.   |       |
| 7.3. Specific end use(s)              |  |       |
| Specific end use(s):                  | No data available.   |       |
| Section 8: Exposure controls/pe       | ersonal protection   |       |
| 8.1. Control parameters               |  |       |
| Workplace expective limiter           |  |       |

Workplace exposure limits: No data available.

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| 8.2. Exposure controls                                     |  |  |
|--|--|--|
| Engineering measures:                                      | Ensure there is sufficient ventilation of the area.                        |  |
| Respiratory protection:                                    | Self-contained breathing apparatus must be available in case of emergency. |  |
| Hand protection:   | Impermeable gloves.  |  |
| Eye protection:  | Safety glasses. Ensure eye bath is to hand.                                |  |
| Skin protection:   | Impermeable protective clothing.   |  |
| Section 9: Physical and chemical properties                |  |  |
| 9.1. Information on basic physical and chemical properties |  |  |
|  |  |  |
| State:   | Liquid   |  |
| State:<br>9.2. Other information                           | Liquid   |  |

### Section 10: Stability and reactivity

10.1. Reactivity

**Reactivity:** Stable under recommended transport or storage conditions.

#### 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

10.4. Conditions to avoid

Conditions to avoid: Heat. Light.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

#### 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Hydrogen fluoride

(HF). Hydrogen bromide gas (HBr).

## Section 11: Toxicological information

### 11.1. Information on toxicological effects

#### Relevant hazards for substance:

| Hazard                      | Route       | Basis              |
|-----------------------------|-------------|--------------------|
| Acute toxicity (ac. tox. 4) | INH DRM ING | Based on test data |

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| Skin corrosion/irritation     | DRM | Based on test data |
|-------------------------------|-----|--------------------|
| Serious eye damage/irritation | OPT | Based on test data |
| STOT-single exposure          | INH | Based on test data |

#### Symptoms / routes of exposure

| Skin contact:  | Skin contact: There may be irritation and redness at the site of contact.                    |  |
|--|--|--|
| <ul><li>Eye contact: There may be irritation and redness. The eyes may water profusely.</li><li>Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach</li></ul> |  |  |
|  |  | pain may occur. There may be vomiting. |
| Inhalation:  | There may be irritation of the throat with a feeling of tightness in the chest.              |  |
| Other information:   | Structural alert for genotoxic carcinogenicity. (predicted *) High hazard Class III chemical |  |
|  | : assigned according to Cramer decision tree with extensions (predicted *)                   |  |

#### Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

### 12.2. Persistence and degradability

Persistence and degradability: Persistent chemical (predicted \*)

12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

## 12.5. Results of PBT and vPvB assessment

PBT identification: This substance is not identified as a PBT substance.

12.6. Other adverse effects

Other adverse effects: No data available.

## Section 13: Disposal considerations

#### 13.1. Waste treatment methods

| Disposal operations:   | MATERIAL SHOULD BE DISPOSED OF IN ACCORDANCE WITH LOCAL, STATE AND                    |
|------------------------|---|
|                        | FEDERAL REGULATIONS   |
| Disposal of packaging: | Dispose of as special waste in compliance with local and national regulations Observe |
|                        | all federal, state and local environmental regulations.                               |
| NB:                    | The user's attention is drawn to the possible existence of regional or national       |
|                        | regulations regarding disposal.   |

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| Section 14: Transport informati    | on   |                |
| Section 14. Hansport mormati       |  |                |
| 14.1. UN number                    |  |                |
| UN number:                         | LINnone  |                |
|                                    | UNIONE   |                |
| 14.2. UN proper shipping name      |  |                |
| Shipping name:                     | NOT CLASSIFIED AS DANGEROUS IN THE MEANING OF TRANSPORT REGULATIONS.                   |                |
| 14.3. Transport hazard class(es)   |  |                |
|                                    |  |                |
| 14.4. Packing group                |  |                |
| 14.5. Environmental hazards        |  |                |
|                                    |  |                |
| Environmentally hazardous:         |  |                |
| 14.6. Special precautions for us   | er   |                |
| Section 15: Regulatory information | tion   |                |
|                                    |  |                |
| 15.1. Safety, health and environ   | mental regulations/legislation specific for the substance or mixture                   |                |
| 15.2. Chemical Safety Assessme     | ant  |                |
|                                    |  |                |
| Chemical safety assessment:        | A chemical safety assessment has not been carried out for the substance or the mixture |                |
|                                    | by the supplier.   |                |
| Section 16: Other information      |  |                |
| Other information                  |  |                |
| Other information                  |  |                |
| Other information:                 | This safety data sheet is prepared in accordance with Commission Regulation (EU) No    |                |
|                                    | 453/2010.  |                |
|                                    | * Data predicted using computational software. Toxtree - Toxic Hazard Estimation by    |                |
|                                    | decision tree approach. http://ecb.jrc.ec.europa.eu/qsar/qsar-tools/index.php?         |                |
|                                    | c=TOXTREE  |                |
|                                    | ~ Data predicted using computatioanl software ACD/ToxSuite v 2.95.1 Copyright 1994-    |                |
|                                    | 2009 ACD/labs, Copyright 2001-2009 Pharma Algorithms, Inc, Advanced Chemistry          |                |
|                                    |  |                |
|                                    | Development, Inc (ACD/Labs). http://www.acdlabs.com/products/pc_admet/tox/tox/         |                |
| Phrases used in s.2 and 3:         | H302+312+332: Harmful if swallowed, in contact with skin or if inhaled.                |                |
|                                    | H315: Causes skin irritation.  |                |
|                                    | H319: Causes serious eye irritation.   |                |
|                                    | H335: May cause respiratory irritation.  |                |
|                                    | R20/21/22: Harmful by inhalation, in contact with skin and if swallowed.               |                |
|                                    | R36/37/38: Irritating to eyes, respiratory system and skin.                            |                |
| Legal disclaimer:                  | The material is intended for research purposes only and should be handled exclusively  |                |
|                                    | by those who have been fully trained in safety, laboratory and chemical handling       |                |
|                                    |  |                |

#### METHYL 4-BROMO-2-(TRIFLUOROMETHOXY)BENZOATE

procedures. The above information is believed to be correct to the best of our knowledge. The above information is believed to be correct to the best of our knowledge at the date of its publication, but should not be considered to be all inclusive. It should be used only as a guide for safe handling, storage, transportation and disposal. We cannot guarantee that the hazards detailed in this document are the only hazards that exist for this product. This is not a warranty and Apollo Scientific Ltd shall not be held liable for any damage resulting from handling or from contact with the above product.

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