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Revision No: 2

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

1.1. Product identifier

Product name: 3-BROMO-2-FLUORO-5-(TRIFLUOROMETHYL)BENZOIC ACID

CAS number: 2091606-48-1

Product code: PC303470

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 Itd

Units 3 & 4 Parkway Denton

Manchester

M34 3SG

UK

Tel: 01616411420

Email: alan.myers@apolloscientific.co.uk

1.4. Emergency telephone number

Emergency tel: -

Section 2: Hazards identification

2.1. Classification of the substance or mixture

Classification under CLP: STOT SE 3: H335; Eye Irrit. 2: H319; Skin Irrit. 2: H315

Most important adverse effects: Causes skin irritation. Causes serious eye irritation. May cause respiratory irritation.

2.2. Label elements

Label elements:

| Hazard statements: | H315: Causes skin irritation. |
|--------------------|---|
| | H319: Causes serious eye irritation. |
| | H335: May cause respiratory irritation. |
| Hazard pictograms: | GHS07: Exclamation mark |



Signal words: Warning

3-BROMO-2-FLUORO-5-(TRIFLUOROMETHYL)BENZOIC ACID

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

 P305+P351+P338:
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

 P321:
 Specific treatment (see supplemental first aid instruction on this label)

2.3. Other hazards

PBT: This product is not identified as a PBT/vPvB substance.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: 3-BROMO-2-FLUORO-5-(TRIFLUOROMETHYL)BENZOIC ACID

CAS number: 2091606-48-1

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. Wash immediately with plenty of soap and water.

Eye contact: Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. 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. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may cause coughing or wheezing.

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.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Hydrogen bromide (HBr). Hydrogen fluoride (HF).

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.

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| Section 6: Accidental release measures | | |
|--|--|--|
| 6.1. Personal precautions, protective 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. Do not | |
| | create dust. | |
| 6.2. Environmental precautions | | |
| Environmental precautions: | Do not discharge into drains or rivers. | |
| 6.3. Methods and material for c | ontainment and cleaning up | |
| Clean-up procedures: | Transfer to a closable, labelled salvage container for disposal by an appropriate | |
| | method. | |
| 6.4. Reference to other sections | • | |
| Section 7: Handling and storag | e | |
| 7.1. Precautions for safe handli | ng | |
| 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 dust in the air. Only | |
| | use in fume hood. | |
| 7.2. Conditions for safe storage | , including any incompatibilities | |
| Storage conditions: | Store in a cool, well ventilated area. Keep container tightly closed. | |
| Suitable packaging: | Must only be kept in original packaging. | |
| 7.3. Specific end use(s) | | |
| Specific end use(s): | No data available. | |
| Section 8: Exposure controls/p | ersonal protection | |
| 8.1. Control parameters | | |
| Workplace exposure limits: | No data available. | |
| DNEL/PNEC Values | | |
| DNEL / PNEC | No data available. | |
| 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. Respiratory | |
| | protective device with particle filter. | |
| Hand protection: | Protective gloves. | |
| Eye protection: | Safety glasses. Ensure eye bath is to hand. | |

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Skin protection: Protective clothing.

Section 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| State: | Solid | | |
|-------------------------|--------------------|-------------------------------|--------------------|
| Evaporation rate: | No data available. | | |
| Oxidising: | No data available. | | |
| Solubility in water: | No data available. | | |
| Melting point/range °C: | No data available. | Flammability limits %: lower: | No data available. |
| upper: | No data available. | Part.coeff. n-octanol/water: | No data available. |
| Autoflammability°C: | No data available. | Vapour pressure: | No data available. |
| Relative density: | No data available. | pH: | No data available. |
| VOC g/l: | No data available. | | |

9.2. Other information

Other information: No data available.

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.

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

bromide gas (HBr). Hydrogen fluoride (HF).

Section 11: Toxicological information

11.1. Information on toxicological effects

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Relevant hazards for product:

| Hazard | Route | Basis |
|-------------------------------|-------|-----------------------|
| Skin corrosion/irritation | DRM | Hazardous: calculated |
| Serious eye damage/irritation | OPT | Hazardous: calculated |
| STOT-single exposure | INH | Hazardous: calculated |

Symptoms / routes of exposure

Skin contact: There may be irritation and redness at the site of contact.

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. Exposure may

cause coughing or wheezing.

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: No data available.

12.2. Persistence and degradability

Persistence and degradability: No data available.

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 product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: No data available.

Section 13: Disposal considerations

13.1. Waste treatment methods

| Disposal operations: | Transfer to a suitable container and arrange for collection by specialised disposal |
|------------------------|---|
| | company. 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 information

Transport class: This product does not require a classification for transport.

Section 15: Regulatory information

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

Specific regulations: Not applicable.

15.2. Chemical Safety Assessment

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: | This safety data sheet is prepared in accordance with Commission Regulation (EU) No 2015/830. |
|------------------------------|---|
| | * Data predicted using computational software. The OECD QSAR-Toolbox for grouping |
| | chemicals into categories. Developed by LMC bulgaria. |
| | http://echa.europa.eu/support/oecd-qsar-toolbox |
| | ~ Data predicted using computational 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 s.3: | H315: Causes skin irritation. |
| | H319: Causes serious eye irritation. |
| | H335: May cause respiratory irritation. |
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