

3-CHLORO-4-FLUOROTOLUENE

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

1.1. Product identifier

Product name: 3-CHLORO-4-FLUOROTOLUENE

CAS number: 1513-25-3

Product code: PC9527

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: -: R10; Xi: R36/37/38

Classification under CLP: STOT SE 3: H335; Eye Irrit. 2: H319; Flam. Liq. 3: H226; Skin Irrit. 2: H315

Most important adverse effects: Flammable. Irritating to eyes, respiratory system and skin.

2.2. Label elements

Label elements under CLP:

Hazard statements: H226: Flammable liquid and vapour.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H335: May cause respiratory irritation.

Signal words: Warning

Hazard pictograms: GHS02: Flame

GHS07: Exclamation mark



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

P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.

Label elements under CHIP:

Hazard symbols: Irritant.



| | Risk phrases: | R10: Flammable. |
|---|-----------------|---|
| | | R36/37/38: Irritating to eyes, respiratory system and skin. |
| ; | Safety phrases: | S23: Do not breathe vapour. |
| | | S26: In case of contact with eyes, rinse immediately with plenty of water and seek |
| | | medical advice. |
| | | S28: After contact with skin, wash immediately with plenty of water. |
| | | S33: Take precautionary measures against static discharges. |
| | | S36/37/39: Wear suitable protective clothing, gloves and eye / face protection. |
| | | S45: In case of accident or if you feel unwell, seek medical advice immediately (show |
| | | the label where possible). |
| | | |

2.3. Other hazards

Other hazards: In use, may form flammable / explosive vapour-air mixture.

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

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: 3-CHLORO-4-FLUOROTOLUENE

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.

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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: Flammable. In combustion emits toxic fumes. Forms explosive air-vapour mixture. Carbon oxides. Hydrogen chloride (HCl). 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.

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. Turn leaking containers leak-side up to prevent the escape of liquid. Eliminate all sources of ignition.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

6.3. Methods and material for containment 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. Do not use equipment in clean-up procedure which may produce sparks.

6.4. Reference to other sections

Section 7: Handling and storage

7.1. Precautions for safe handling

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.

Smoking is forbidden. Use non-sparking tools. Only use in fume hood.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in cool, well ventilated area. Keep container tightly closed. Keep away from sources of ignition. Prevent the build up of electrostatic charge in the immediate area. Ensure lighting and electrical equipment are not a source of ignition.

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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/personal protection 8.1. Control parameters Workplace exposure limits: Not applicable. 8.2. Exposure controls Engineering measures: Ensure there is sufficient ventilation of the area. Ensure lighting and electrical equipment are not a source of ignition. Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Hand protection: Protective gloves. Eye protection: Safety glasses. Ensure eye bath is to hand. Skin protection: Protective clothing. Section 9: Physical and chemical properties 9.1. Information on basic physical and chemical properties State: Liquid Boiling point/range °C: 167-169 Relative density: 1.18 9.2. Other information Other information: Not applicable. 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. Stable at room temperature. 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. Hot surfaces. Sources of ignition. Flames. 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 chloride (HCI). Hydrogen fluoride (HF).

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Section 11: Toxicological information

11.1. Information on toxicological effects

Relevant hazards for substance:

| Hazard | Route | Basis |
|-------------------------------|-------|--------------------|
| 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: 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: Not applicable.

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 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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Page: 6 Section 14: Transport information 14.1. UN number UN number: UN1993 14.2. UN proper shipping name Shipping name: FLAMMABLE LIQUID, N.O.S. 14.3. Transport hazard class(es) Transport class: 3 14.4. Packing group Packing group: III 14.5. Environmental hazards Environmentally hazardous: No Marine pollutant: No 14.6. Special precautions for user Tunnel code: D/E Transport category: 3 Section 15: Regulatory information 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture 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 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: H226: Flammable liquid and vapour. H315: Causes skin irritation. H319: Causes serious eye irritation. H335: May cause respiratory irritation.

R10: Flammable.

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

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