

2'-CHLORO-4'-HYDROXYACETOPHENONE

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

1.1. Product identifier

Product name:2'-CHLORO-4'-HYDROXYACETOPHENONECAS number:68301-59-7Product code:OR8804Synonyms:1-(2-CHLORO-4-HYDROXYPHENYL)ETHAN-1-ONE4-ACETYL-3-CHLOROPHENOL

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 | |

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Page: 2 Hazard pictograms: GHS07: Exclamation mark Precautionary statements: P280: Wear protective gloves/protective clothing/eye protection/face protection. P271: Use only outdoors or in a well-ventilated area. 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. Safety phrases: S22: Do not breathe dust. 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

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

pain may occur. There may be vomiting.

Section 3: Composition/information on ingredients

3.1. Substances

Chemical identity: 2'-CHLORO-4'-HYDROXYACETOPHENONE

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. The eyes may water profusely. | |
| Ingestion: | There may be soreness and redness of the mouth and throat. Nausea and stomach | |

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

Delayed / immediate effects: The chemical, physical, and toxicological properties have not been thoroughly

investigated. RTECS: AM6310000

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. Carbon oxides. Hydrogen chloride (HCI).

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.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

6.3. Methods and material for containment 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 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 dust in the air. 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. Store under Argon.Suitable packaging: Must only be kept in original packaging.

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|----------------------------------|--|-------|---|
| 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: | Net applicable | | |
| 8.2. Exposure controls | | | |
| 6.2. 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. | | |
| Skin protection: | Protective clothing. | | |
| Section 9: Physical and chemi | cal properties | | |
| 0.1 Information on basis abyo | ical and chamical properties | | |
| 9.1. Information on basic phys | cal and chemical properties | | |
| State: | Powder | | |
| Boiling point/range °C: | 227-230Melting point/range ℃: 110 | | |
| Flash point °C: | 92 Relative density: 1.19 | | |
| 9.2. Other information | | | |
| Other information: | Not applicable. | | |
| Section 10: Stability and react | vity | | |
| 10.1. Reactivity | | | |
| | | | |
| - | Stable under recommended transport or storage conditions. | | _ |
| 10.2. Chemical stability | | | |
| Chemical stability: | Stable under normal conditions. | | |
| 10.3. Possibility of hazardous r | 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 decompositio | n products | | |

10.6. Hazardous decomposition products

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

chloride (HCI).

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Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

| Route | Species | Test | Value | Units |
|-------|---------|------|-------|-------|
| ORAL | RAT | LD50 | 1820 | mg/kg |

Relevant hazards for substance:

| Hazard | Route | Basis |
|-------------------------------|-------------|--------------------|
| Acute toxicity (ac. tox. 4) | INH DRM ING | Based on test data |
| 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. Nausea and stomach |
| | pain may occur. There may be vomiting. |
| Inhalation: | There may be irritation of the throat with a feeling of tightness in the chest. |
| Delayed / immediate effects: | The chemical, physical, and toxicological properties have not been thoroughly |
| | investigated. RTECS: AM6310000 |
| Other information: | High hazard Class III chemical : assigned according to Cramer decision tree with |
| | extensions (predicted *) Structural alert for nongenotoxic carcinogenicity. (predicted *) |

Section 12: Ecological information

12.1. Toxicity

Ecotoxicity values: Not applicable.

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.

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| 12.6. Other adverse effects | | | |
| Other adverse effects: | No data available. | | |
| Section 13: Disposal considera | ations | | |
| 13.1. Waste treatment methods | | | |
| Disposal operations: | | | |
| 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 | | |
| Biopooul of puokaging. | 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. | | |
| Section 14: Transport informat | | | |
| | | | |
| - | This product does not require a classification for transport. | | |
| Section 15: Regulatory information | ation | | |
| 15.1. Safety, health and enviror | mental regulations/legislation specific for the substance or mixture | | |
| 15.2. Chemical Safety Assessm | pent | | |
| | | | |
| 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 activates Taxtros Taxis Llagard Estimation by | | |
| | * 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

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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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