

(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

Page: 1

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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: (3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

CAS number: 147081-29-6

Product code: OR15643

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: Xi: R37/38; Xi: R41

Classification under CLP: STOT SE 3: H335; Eye Dam. 1: H318; Skin Irrit. 2: H315

Most important adverse effects: Irritating to respiratory system and skin. Risk of serious damage to eyes.

2.2. Label elements

| Label elements under CLP: | | |
|---------------------------|---|--|
| Hazard statements: | H315: Causes skin irritation. | |
| | H318: Causes serious eye damage. | |
| | H335: May cause respiratory irritation. | |
| Signal words: | Danger | |
| Hazard pictograms: | GHS07: Exclamation mark | |
| | GHS05: Corrosion | |
| | | |



(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

Page: 2

Precautionary statements:P280: Wear protective gloves/protective clothing/eye protection/face protection.
P309+311: IF exposed or if you feel unwell: Call a POISON CENTER or doctor.Label elements under CHIP:Irritant.Hazard symbols:Irritant.Risk phrases:R37/38: Irritating to respiratory system and skin.
R41: Risk of serious damage to eyes.Safety phrases:S22: Do not breathe dust.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek
medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye / face protection.

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: (3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

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. Transfer to hospital for specialist |
| | examination. |
| 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 pain and redness. The eyes may water profusely. There may be severe |
| | pain. The vision may become blurred. May cause permanent damage. |
| Ingestion: | There may be soreness and redness of the mouth and throat. Nausea and stomach |
| | pain may occur. |
| Inhalation: | There may be irritation of the throat with a feeling of tightness in the chest. |
| Delayed / immediate effects: | Immediate effects can be expected after short-term exposure. |

(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

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

Immediate / special treatment: Eye bathing equipment should be available on the premises.

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.

5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes of carbon dioxide / carbon monoxide. Nitrogen oxides (NOx).

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: Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. Do not create dust.

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

Reference to other sections: Refer to section 8 of SDS.

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.

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. Air sensitive. Store under Argon.

Suitable packaging: Must only be kept in original packaging.

(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

| | | Page: | 4 |
|----------------------------------|--|-------|---|
| 7.3. Specific end use(s) | | | |
| Specific end use(s): | No data available. | | |
| Section 8: Exposure controls/p | 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. | | |
| 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: | Tightly fitting safety goggles. Ensure eye bath is to hand. | | |
| Skin protection: | Protective clothing. | | |
| Section 9: Physical and chemi | cal properties | | |
| 9.1. Information on basic physi | cal and chemical properties | | |
| State: | Solid | | _ |
| Melting point/range °C: | | | |
| 9.2. Other information | | | |
| Other information: | Not applicable. | | _ |
| Section 10: Stability and reacti | vity | | |
| 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 r | eactions | | |
| Hazardous reactions: | Hazardous reactions will not occur under normal transport or storage conditions. | | _ |
| | Decomposition may occur on exposure to conditions or materials listed below. | | |
| 10.4. Conditions to avoid | becomposition may occur on exposure to conditions of materials listed below. | | |
| | | | |
| Conditions to avoid: | Heat. Air. | | _ |
| 10.5. Incompatible materials | | | |

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. Nitrogen oxides

(NOx).

(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

Page: 5

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 pain and redness. The eyes may water profusely. There may be severe pain. The vision may become blurred. May cause permanent damage.

Ingestion: There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

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

Delayed / immediate effects: Immediate effects can be expected after short-term exposure.

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
 Federal, state and local environmental regulations.

(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

NB: The user's attention is drawn to the possible existence of regional or national

regulations regarding disposal.

Section 14: Transport information

14.1. UN number

UN number: UNnone

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: No

14.6. Special precautions for user

Special precautions: No special precautions.

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: | H315: Causes skin irritation. |
| | H318: Causes serious eye damage. |
| | H335: May cause respiratory irritation. |
| | R37/38: Irritating to respiratory system and skin. |
| | R41: Risk of serious damage to eyes. |
| Legal disclaimer: | The material is intended for research purposes only and should be handled exclusively |

Page: 6

Marine pollutant: No

(3S)-3-METHYLPIPERAZINE, N1-BOC PROTECTED

by those who have been fully trained in safety, laboratory and chemical handling 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.

Page: 7