

## SAFETY DATA SHEET

2-(MORPHOLIN-4-YL)-1,3-THIAZOLE-5-CARBOXALDEHYDE

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Compilation date: 20/06/2011

Revision No: 1

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

#### 1.1. Product identifier

**Product name:** 2-(MORPHOLIN-4-YL)-1,3-THIAZOLE-5-CARBOXALDEHYDE

**CAS number:** 1011-41-2

**Product code:** OR14933

**Synonyms:** 2-MORPHOLINO-1,3-THIAZOLE-5-CARBALDEHYDE

#### 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; Skin Irrit. 2: H315; Eye Irrit. 2: H319; STOT SE 3: H335; Acute Tox. 4: H312; Acute Tox. 4: H332

**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: Harmful if swallowed.

H312: Harmful in contact with skin.

H315: Causes skin irritation.

H319: Causes serious eye irritation.

H332: Harmful if inhaled.

H335: May cause respiratory irritation.

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**Signal words:** Warning

**Hazard pictograms:** GHS07: Exclamation mark



**Precautionary statements:** P260: Do not breathe dust.

P271: Use only outdoors or in a well-ventilated area.

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:** 2-(MORPHOLIN-4-YL)-1,3-THIAZOLE-5-CARBOXALDEHYDE

## Section 4: First aid measures

### 4.1. Description of first aid measures

**Skin contact:** Drench the affected skin with running water for 10 minutes or longer if substance is still on skin.

**Eye contact:** Bathe the eye with running water for 15 minutes. If symptoms persist seek medical attention

**Ingestion:** Rinse out mouth and drink plenty of water. In case of tissue damage or other symptoms, seek medical advice.

**Inhalation:** Remove casualty from exposure ensuring one's own safety whilst doing so. If breathing becomes difficult give oxygen and seek medical attention

### 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.

**Ingestion:** No data available.

**Inhalation:** No data available.

[cont...]

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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:** Suitable extinguishing media for the surrounding fire should be used. Extinguish with carbon dioxide, dry chemical, foam or waterspray.

### 5.2. Special hazards arising from the substance or mixture

**Exposure hazards:** May release irritating gases and vapours on thermal decomposition. Nitrogen oxides (NO<sub>x</sub>). Sulphur oxides (SO<sub>x</sub>).

### 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:** Ensure adequate ventilation

### 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 suitable container.

### 6.4. Reference to other sections

## Section 7: Handling and storage

### 7.1. Precautions for safe handling

**Handling requirements:** Only use in fume hood. Do not breathe dust, vapour, mist or gas. Handle under dry protective gas (Ar).

### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Store in cool, well ventilated area. Keep container tightly closed. Recommended storage temp 2-8 °C. Air sensitive. Store under inert gas.

**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.

[cont...]

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### 8.2. Exposure controls

**Engineering measures:** Ensure there is sufficient ventilation of the area.

**Respiratory protection:** Always use a NIOSH or European Standard EN 149 approved respirator when necessary.

**Hand protection:** Protective gloves.

**Eye protection:** Safety goggles.

**Skin protection:** Protective clothing.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

**State:** Solid

**Colour:** Yellow

**Odour:** No data available

**Evaporation rate:** No Data Available

**Oxidising:** No data available

**Solubility in water:** No Data Available

**Also soluble in:** No Data Available

**Viscosity:** Not available

**Boiling point/range °C:** not known

**Flash point °C:** not known

**Vapour pressure:** not known

**pH:** not known

**Melting point/range °C:** 162-165

**Part.coeff. n-octanol/water:** not known

**Relative density:** not known

**VOC g/l:** not known

### 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.

### 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:** Air.

### 10.5. Incompatible materials

**Materials to avoid:** Strong reducing agents. Strong oxidising agents.

[cont...]

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### 10.6. Hazardous decomposition products

**Haz. decomp. products:** Nitrogen oxides (NO<sub>x</sub>). Carbon monoxide, carbon dioxide Sulfur oxides (SO<sub>x</sub>)

## 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
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.

**Ingestion:** No data available.

**Inhalation:** No data available.

## 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.

[cont...]

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**NB:** The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

### 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

#### 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.

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\* 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>

**Phrases used in s.2 and 3:** H302: Harmful if swallowed.  
H312: Harmful in contact with skin.  
H315: Causes skin irritation.  
H319: Causes serious eye irritation.  
H332: Harmful if inhaled.  
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 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.