SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Product Description: 2-Amino-5-methyl-1,3,4-thiadiazole
Cat No.: 158370000; 158370050
Molecular Formula C3 H5 N3 S

1.2. Relevant identified uses of the substance or mixture and uses advised against

Recommended Use Laboratory chemicals.
Uses advised against No Information available

1.3. Details of the supplier of the safety data sheet

Company
UK entity/business name Fisher Scientific UK
Bishop Meadow Road, Loughborough,
Leicestershire LE11 5RG, United Kingdom

EU entity/business name
Acros Organics BVBA
Janssen Pharmaceuticalaan 3a
2440 Geel, Belgium

E-mail address begel.sdsdesk@thermofisher.com

1.4. Emergency telephone number

For information US call: 001-800-ACROS-01 / Europe call: +32 14 57 52 11
Emergency Number US:001-201-796-7100 / Europe: +32 14 57 52 99
CHEMTREC Tel. No.US:001-800-424-9300 / Europe:001-703-527-3887

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP Classification - Regulation (EC) No 1272/2008

Physical hazards
Based on available data, the classification criteria are not met

Health hazards
Based on available data, the classification criteria are not met

Environmental hazards
Based on available data, the classification criteria are not met

*Full text of Hazard Statements: see section 16*

### 2.2. Label elements
None required

### 2.3. Other hazards
No information available

#### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

#### 3.1. Substances

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No</th>
<th>EC-No.</th>
<th>Weight %</th>
<th>CLP Classification - Regulation (EC) No 1272/2008</th>
</tr>
</thead>
<tbody>
<tr>
<td>5-Methyl-1,3,4-thiadiazol-2-ylamine</td>
<td>108-33-8</td>
<td>EEC No. 203-573-7</td>
<td>97</td>
<td>-</td>
</tr>
</tbody>
</table>

*Full text of Hazard Statements: see section 16*

#### SECTION 4: FIRST AID MEASURES

#### 4.1. Description of first aid measures

- **Eye Contact**: Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Get medical attention.
- **Skin Contact**: Wash off immediately with plenty of water for at least 15 minutes. Get medical attention immediately if symptoms occur.
- **Ingestion**: Clean mouth with water and drink afterwards plenty of water. Get medical attention if symptoms occur.
- **Inhalation**: Remove to fresh air. Get medical attention immediately if symptoms occur.
- **Self-Protection of the First Aider**: No special precautions required.

#### 4.2. Most important symptoms and effects, both acute and delayed
None reasonably foreseeable.

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

- **Notes to Physician**: Treat symptomatically.
SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Suitable Extinguishing Media
Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Extinguishing media which must not be used for safety reasons
No information available.

5.2. Special hazards arising from the substance or mixture

Thermal decomposition can lead to release of irritating gases and vapors.

Hazardous Combustion Products
Thermal decomposition can lead to release of irritating gases and vapors.

5.3. Advice for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures

Ensure adequate ventilation. Use personal protective equipment as required. Avoid dust formation.

6.2. Environmental precautions

Should not be released into the environment. See Section 12 for additional Ecological Information.

6.3. Methods and material for containment and cleaning up

Sweep up and shovel into suitable containers for disposal. Avoid dust formation.

6.4. Reference to other sections

Refer to protective measures listed in Sections 8 and 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Wear personal protective equipment/face protection. Ensure adequate ventilation. Avoid contact with skin, eyes or clothing. Avoid ingestion and inhalation. Avoid dust formation.

Hygiene Measures
Handle in accordance with good industrial hygiene and safety practice. Keep away from food, drink and animal feeding stuffs. Do not eat, drink or smoke when using this product. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and after work.

7.2. Conditions for safe storage, including any incompatibilities

Keep in a dry, cool and well-ventilated place. Keep container tightly closed.
2-Amino-5-methyl-1,3,4-thiadiazole

Technical Rules for Hazardous Substances (TRGS) 510 Storage Class (LGK) (Germany)

Class 11

7.3. Specific end use(s)

Use in laboratories

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

Exposure limits

This product, as supplied, does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.

Biological limit values

This product, as supplied, does not contain any hazardous materials with biological limits established by the region specific regulatory bodies.

Monitoring methods

BS EN 14042:2003 Title Identifier: Workplace atmospheres. Guide for the application and use of procedures for the assessment of exposure to chemical and biological agents.

MDHS14/3 General methods for sampling and gravimetric analysis of respirable and inhalable dust

Derived No Effect Level (DNEL)  
No information available

<table>
<thead>
<tr>
<th>Route of exposure</th>
<th>Acute effects (local)</th>
<th>Acute effects (systemic)</th>
<th>Chronic effects (local)</th>
<th>Chronic effects (systemic)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Dermal</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Inhalation</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Predicted No Effect Concentration (PNEC)  
No information available.

8.2. Exposure controls

Engineering Measures

None under normal use conditions.

Personal protective equipment

Eye Protection
Wear safety glasses with side shields (or goggles) (European standard - EN 166)

Hand Protection
Protective gloves

<table>
<thead>
<tr>
<th>Glove material</th>
<th>Breakthrough time</th>
<th>Glove thickness</th>
<th>EU standard</th>
<th>Glove comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Nitrile rubber</td>
<td>See manufacturers</td>
<td></td>
<td>EN 374</td>
<td></td>
</tr>
<tr>
<td>Neoprene</td>
<td>recommendations</td>
<td></td>
<td></td>
<td>See manufacturers recommendations</td>
</tr>
<tr>
<td>Natural rubber</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PVC</td>
<td></td>
<td></td>
<td></td>
<td>See manufacturers recommendations</td>
</tr>
</tbody>
</table>

Skin and body protection
Wear appropriate protective gloves and clothing to prevent skin exposure

Inspect gloves before use.
Please observe the instructions regarding permeability and breakthrough time which are provided by the supplier of the gloves.
(Refer to manufacturer/supplier for information)
Ensure gloves are suitable for the task: Chemical compatibility, Dexterity, Operational conditions, User susceptibility, e.g. sensitisation effects, also take into consideration the specific local conditions under which the product is used, such as the danger of cuts, abrasion. Remove gloves with care avoiding skin contamination.

**Respiratory Protection**
No protective equipment is needed under normal use conditions.

**Large scale/emergency use**
Use a NIOSH/MSHA or European Standard EN 136 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced

**Recommended Filter type**: Particle filter 2

**Small scale/Laboratory use**
Maintain adequate ventilation

**Environmental exposure controls**
No information available.

### SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Physical State</strong></td>
<td>Powder Solid</td>
</tr>
<tr>
<td><strong>Appearance</strong></td>
<td>Beige</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>No information available</td>
</tr>
<tr>
<td><strong>Odor Threshold</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Melting Point/Range</strong></td>
<td>224 - 225 °C / 435.2 - 437 °F</td>
</tr>
<tr>
<td><strong>Softening Point</strong></td>
<td>No data available</td>
</tr>
<tr>
<td><strong>Boiling Point/Range</strong></td>
<td>No information available</td>
</tr>
<tr>
<td><strong>flammability (liquid)</strong></td>
<td>Not applicable</td>
</tr>
</tbody>
</table>
| **flammability (solid,gas)**    | No information available      | Solid
| **Explosion Limits**            | No data available             |
| **Flash Point**                 | No information available      |
| **Autoignition Temperature**    | Not applicable                |
| **Decomposition Temperature**   | No data available             |
| **pH**                          | No information available      |
| **Viscosity**                   | Not applicable                |
| **Water Solubility**            | No information available      | Solid
| **Solubility in other solvents**| No information available      |
| **Partition Coefficient (n-octanol/water)** | No data available |
| **Vapor Pressure**              | No data available             |
| **Density / Specific Gravity**  | No data available             |
| **Bulk Density**                | No data available             |
| **Vapor Density**               | Not applicable                |
| **Particle characteristics**    | No data available             |

#### 9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Molecular Formula</strong></td>
<td>C₃H₅N₃S</td>
</tr>
<tr>
<td><strong>Molecular Weight</strong></td>
<td>115.16</td>
</tr>
<tr>
<td><strong>Evaporation Rate</strong></td>
<td>Not applicable - Solid</td>
</tr>
</tbody>
</table>

### SECTION 10: STABILITY AND REACTIVITY

#### 10.1. Reactivity
None known, based on information available
10.2. Chemical stability
   Stable under normal conditions.

10.3. Possibility of hazardous reactions

   Hazardous Polymerization
   No information available.

   Hazardous Reactions
   None under normal processing.

10.4. Conditions to avoid
   Incompatible products. Excess heat.

10.5. Incompatible materials
   Oxidizing agent.

10.6. Hazardous decomposition products
   Thermal decomposition can lead to release of irritating gases and vapors.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008

Product Information
   No acute toxicity information is available for this product

(a) acute toxicity;
   Oral
   No data available
   Dermal
   No data available
   Inhalation
   No data available

(b) skin corrosion/irritation;
   No data available

(c) serious eye damage/irritation;
   No data available

(d) respiratory or skin sensitization;
   Respiratory
   No data available
   Skin
   No data available

(e) germ cell mutagenicity;
   No data available

(f) carcinogenicity;
   No data available
   There are no known carcinogenic chemicals in this product

(g) reproductive toxicity;
   No data available

(h) STOT-single exposure;
   No data available

(i) STOT-repeated exposure;
   Target Organs
   No information available.

(j) aspiration hazard;
   Not applicable
Solid

Symptoms / effects, both acute and delayed
No information available.

11.2. Information on other hazards

Endocrine Disrupting Properties
Assess endocrine disrupting properties for human health. This product does not contain any known or suspected endocrine disruptors.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity effects
Contains no substances known to be hazardous to the environment or that are not degradable in waste water treatment plants.

12.2. Persistence and degradability
No information available

12.3. Bioaccumulative potential
No information available

12.4. Mobility in soil
No information available

12.5. Results of PBT and vPvB assessment
No data available for assessment.

12.6. Endocrine disrupting properties
Endocrine Disruptor Information
This product does not contain any known or suspected endocrine disruptors

12.7. Other adverse effects
Persistent Organic Pollutant
This product does not contain any known or suspected substance
Ozone Depletion Potential
This product does not contain any known or suspected substance

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from Residues/Unused Products
Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

Contaminated Packaging
Empty remaining contents. Dispose of in accordance with local regulations. Do not re-use empty containers.

European Waste Catalogue (EWC)
According to the European Waste Catalog, Waste Codes are not product specific, but application specific.

Other Information
Waste codes should be assigned by the user based on the application for which the product was used.

SECTION 14: TRANSPORT INFORMATION
SAFETY DATA SHEET

2-Amino-5-methyl-1,3,4-thiadiazole

Revision Date 14-Dec-2020

IMDG/IMO
- Not regulated

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group

ADR
- Not regulated

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group

IATA
- Not regulated

14.1. UN number
14.2. UN proper shipping name
14.3. Transport hazard class(es)
14.4. Packing group

14.5. Environmental hazards
- No hazards identified

14.6. Special precautions for user
- No special precautions required

14.7. Maritime transport in bulk according to IMO instruments
- Not applicable, packaged goods

SECTION 15: REGULATORY INFORMATION

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

International Inventories
- X = listed, Europe (EINECS/ELINCS/NLP), U.S.A. (TSCA), Canada (DSL/NDSL), Philippines (PICCS), China (IECSC), Japan (ENCS), Australia (AICS), Korea (ECL).

<table>
<thead>
<tr>
<th>Component</th>
<th>EINECS</th>
<th>ELINCS</th>
<th>NLP</th>
<th>TSCA</th>
<th>DSL</th>
<th>NDSL</th>
<th>PICCS</th>
<th>ENCS</th>
<th>IECSC</th>
<th>AICS</th>
<th>KECL</th>
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</thead>
<tbody>
<tr>
<td>5-Methyl-1,3,4-thiadiazol-2-ylamine</td>
<td>203-573-7</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>X</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
</tbody>
</table>

- Not applicable

National Regulations

WGK Classification
- Water endangering class = 3 (self classification)

UK - Take note of Control of Substances Hazardous to Health Regulations (COSHH) 2002 and 2005 Amendment

15.2. Chemical safety assessment

A Chemical Safety Assessment/Report (CSA/CSR) has not been conducted

ACR15837
SAFETY DATA SHEET

2-Amino-5-methyl-1,3,4-thiadiazole

Revision Date 14-Dec-2020

SECTION 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

**Legend**

**CAS** - Chemical Abstracts Service

**EINECS/ELINCS** - European Inventory of Existing Commercial Chemical Substances/EU List of Notified Chemical Substances

**PICCS** - Philippines Inventory of Chemicals and Chemical Substances

**IECSC** - Chinese Inventory of Existing Chemical Substances

**KECL** - Korean Existing and Evaluated Chemical Substances

**WEL** - Workplace Exposure Limit

**ACGIH** - American Conference of Governmental Industrial Hygienists

**DNEL** - Derived No Effect Level

**RPE** - Respiratory Protective Equipment

**LC50** - Lethal Concentration 50%

**NOEC** - No Observed Effect Concentration

**PBT** - Persistent, Bioaccumulative, Toxic

**ADR** - European Agreement Concerning the International Carriage of Dangerous Goods by Road

**IMO/IMDG** - International Maritime Organization/International Maritime Dangerous Goods Code

**OECD** - Organisation for Economic Co-operation and Development

**BCF** - Bioconcentration factor

Key literature references and sources for data

https://echa.europa.eu/information-on-chemicals

Suppliers safety data sheet, Chemadvisor - LOLI, Merck index, RTECS

Training Advice

Chemical hazard awareness training, incorporating labelling, Safety Data Sheets (SDS), Personal Protective Equipment (PPE) and hygiene.

Revision Date 14-Dec-2020

Revision Summary Update to CLP Format.


Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet