

3-Amino-1,2,4-triazole

3AT010-100

SECTION 1 Identification of the Substance/Mixture and of the Company/Undertaking

1.1. Product identifier

Identification of the product : Raw Material
Product code : 3AT010-100
Trade name : 3-Amino-1,2,4-triazole
CAS number : 61-82-5


Warning

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

Use : For research purposes only

1.3. Details of the supplier of the safety data sheet

Company identification : **Formedium Ltd.**
 King's Lynn, England, PE31 6DJ
 Tel: +44(0)1485 609069
 Web: www.formedium.com
 E-mail: info@formedium.com

1.4. Emergency telephone number

Emergency phone nr : Tel: +44(0)1485 609069 (local time : 9.00 to 17.00)
 NHS Direct 111 (UK, 24 hours), 112 (EU, 24 Hours)

SECTION 2 Hazards Identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) 1272/2008

Reproductive toxicity (Category 2) : H361d – suspected of damaging the unborn child.
Specific target organ toxicity – repeated exposure (Category 2) : H373 – May cause damage to organs through prolonged or repeated exposure.
Chronic aquatic toxicity (Category 2) : H411 – Toxic to aquatic life with long lasting effects.

 Signal Word: **WARNING**


2.2. Label elements

Labelling according to Regulation (EC) 1272/2008

Hazard statement(s): H361d – suspected of damaging the unborn child.
 H373 May cause damage to organs through prolonged or repeated exposure.
 H411 Toxic to aquatic life with long lasting effects.

Precautionary statement(s): P273 – Avoid release to the environment.
 P281 – Use personal protective equipment as required

SECTION 3 Composition/Information on Ingredients

Hazardous ingredients according to Regulation (EC) No 1272/2008

Component

Substance name	contents	CAS No	EC No	Index No	Classification
3-Amino-1,2,4-Triazole, 3-AT, 1,2,4-Triazol-3-amine, Amitrole	<=100 %	61-82-5	200-521-5	613-011-00-6	Repr.2; STOT RE 2; Aquatic Chronic 2; H361d, H373, H411

For the full text of the H-Statements mentioned in this Section, see Section 16.

3-Amino-1,2,4-triazole**3AT010-100****SECTION 4 First Aid Measures****4.1. Description of first aid measures**

General advice : Consult a physician. Show this safety data sheet to the doctor in attendance.

Inhalation : If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

Skin contact : Wash off with soap and plenty of water. Consult a physician.

Eye contact : Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

Ingestion : Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

4.2. Most important symptoms and effects, both acute and delayed

The most important known symptoms and effects are described in the labelling (see section 2.2) and/or in section 11.

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

No data available.

SECTION 5 Fire-fighting Measures**5.1. Extinguishing media**

Suitable extinguishing media : Alcohol foam, Carbon Dioxide (CO₂), Dry powder, Water Spray, dry chemical

5.2. Special hazards arising from the substance or mixture

Under fire conditions, hazardous fumes will be present – Nitrogen oxides (NO_x), Carbon oxides (CO_x).

5.3. Advice for fire-fighters

If necessary, wear self-contained breathing apparatus for firefighting.

5.4. Further information

No data available.

SECTION 6 Accidental Release Measures**6.1. Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment. Avoid dust formation. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas. Avoid breathing dust. For personal protection see section 8.

6.2. Environmental precautions

Prevent further leakage or spillage if safe to do so. Do not let product enter drains.

Discharge into the environment must be avoided.

6.3. Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

6.4. Reference to other sections

For disposal, see section 13

SECTION 7 Handling and Storage**7.1. Precautions for safe handling**

Avoid contact with skin and eyes. Avoid formation of dust and aerosols.

Provide appropriate exhaust ventilation at places where dust is formed. For precautions see section 2.2. 7

7.2. Conditions for safe storage, including any incompatibilities

Store in cool place. Keep container tightly closed in a dry and well-ventilated place.

Recommended storage temperature -20 °C

7.3. Specific end use(s)

Apart from the uses mentioned in section 1.2 no other specific uses are stipulated.

3-Amino-1,2,4-triazole**3AT010-100****SECTION 8 Exposure Controls / Personal Protection****8.1. Control parameters**

Components with workplace control parameters Contains no substances with occupational exposure limit values.

8.2. Exposure controls

Appropriate engineering controls Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

Personal protective equipment**Eye / face protection:**

Safety glasses with side-shields conforming to EN166 Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

Skin protection:

Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Body protection:

Material: Nitrile rubber Minimum layer thickness: 0.11 mm Break through time: 480 min
Impervious clothing, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection:

Where risk assessment shows air-purifying respirators are appropriate use a full-face particle respirator type N100 (US) or type P3 (EN 143) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Control of environmental exposure

Prevent further leakage or spillage if safe to do so. Do not let product enter drains. Discharge into the environment must be avoided.

SECTION 9 Physical and Chemical Properties**9.1. Information on basic physical and chemical properties**

- | | |
|---|-----------------------------------|
| a) Appearance | Form: solid |
| b) Odour | No data available |
| c) Odour Threshold | No data available |
| d) pH | No data available |
| e) Melting point/freezing point | Melting point/range: 150 - 153 °C |
| f) Initial boiling point and boiling range | No data available |
| g) Flash point | No data available |
| h) Evaporation rate | No data available |
| i) Flammability (solid, gas) | No data available |
| j) Upper/lower flammability or explosive limits | No data available |
| k) Vapour pressure | No data available |
| l) Vapour density | No data available |
| m) Relative density | No data available |
| n) Water solubility | No data available |
| o) Partition coefficient: n-octanol/water | log Pow: -0.969 at 23 °C |
| p) Auto-ignition temperature | No data available |
| q) Decomposition temperature | No data available |
| r) Viscosity | No data available |
| s) Explosive properties | No data available |
| t) Oxidizing properties | No data available |

9.2. Other safety information

No data available

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3-Amino-1,2,4-triazole**3AT010-100****SECTION 10 Stability and Reactivity****10.1. Reactivity**

No data available

10.2. Chemical stability

Stable under recommended storage conditions.

10.3. Possibility of hazardous reactions

No data available

10.4. Conditions to avoid

No data available

10.5. Incompatible materials

Strong oxidizing agents, Strong acids, Copper, Iron and iron salts.

10.6. Hazardous decomposition products

Other decomposition products - No data available In the event of fire: see section 5

SECTION 11 Toxicological Information**11.1. Information on toxicological effects****Acute toxicity**

LD50 Oral - Rat - 25,000 mg/kg

LC50 Inhalation - Rat - 4 h - > 400 mg/m³

LD50 Dermal - Rat - > 10,000 mg/kg

Skin corrosion/irritation

Skin - Rabbit

Result: Mild skin irritation

Serious eye damage/eye irritation

Eyes – Rabbit

Result: Mild eye irritation

Respiratory or skin sensitisation

No data available

Germ cell mutagenicity

In vivo tests showed mutagenic effects Carcinogenicity

This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, ACGIH, NTP, or EPA classification.

IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (Amitrole)

Reproductive toxicity

Possible risk of congenital malformation in the foetus. Suspected human reproductive toxicant

Specific target organ toxicity - single exposure

No data available

Specific target organ toxicity - repeated exposure

No data available

Aspiration hazard

No data available

Additional Information

RTECS: XZ3850000

Liver - Irregularities - Based on Human Evidence

3-Amino-1,2,4-triazole**3AT010-100****SECTION 11.0 Toxicological Information****11.2 Additional Information****Endocrine disrupting properties :**

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 12 Ecological Information**12.1. Toxicity**

Toxicity to fish	LC50 - Pimephales promelas (fathead minnow) - > 100 mg/l - 96.0 h
Toxicity to daphnia and other aquatic invertebrates	EC50 - Daphnia magna (Water flea) - 30 mg/l - 48 h
Toxicity to algae	EC50 - Desmodesmus subspicatus (green algae) - 11.4 mg/l - 96 h

12.2. Persistence and degradability

Biodegradability Result: 0 % - According to the results of tests of biodegradability this product is not readily biodegradable. (OECD Test Guideline 301)

12.3. Bioaccumulative potential

No data available

12.4. Mobility in soil

No data available

12.5. Results of PBT and vPvB assessment

PBT/vPvB assessment not available as chemical safety assessment not required/not conducted

12.6. Other adverse effects

Toxic to aquatic life with long lasting effects.

12.7. Endocrine disrupting properties

The Substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

SECTION 13 Disposal Considerations**13.1. Waste treatment methods**

Product	: Offer surplus and non-recyclable solutions to a licensed disposal company. Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator with an afterburner and scrubber.
Contaminated packaging	: Dispose of as unused product

3-Amino-1,2,4-triazole**3AT010-100****SECTION 14 Transport Information****14.1. UN Number**

ADR/RID: 3077

INDG: 3077

IATA:3077

14.2. UN Proper shipping name

ADR/RID: ENVIRONMENTALLY HAZARDOUS SUBSTANCE: SOLID, N.O.S. (Amitrole)

IMDG: ENVIRONMENTALLY HAZARDOUS SUBSTANCE: SOLID, N.O.S. (Amitrole)

IATA: ENVIRONMENTALLY HAZARDOUS SUBSTANCE: SOLID, N.O.S. (Amitrole)

14.3. Transport hazard class(es)

ADR/RID:9

IMGD: 9

IATA:9

14.4. Packaging group

ADR/RID.111

IMDG: 111

IATA: 111

14.5. Environmental hazards

ADR/RID. Yes

IMDG Marine pollutant: Yes

IATA: Yes

14.6. Special precautions for user

Not applicable.

14.7. Bulk transport - annex II Marpol 73/78 - IBC

EHS-Mark required (ADR 2.2.9.1.10, IMDG code 2.10.3) for single packagings and combination packagings containing inner packagings containing inner packagings with dangerous goods > 5L for liquids or > 5kgs for solids

SECTION 15 Regulatory Information**15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture**

This safety datasheet complies with the requirements of Regulation (EC) No. 2015/830

15.2. Chemical Safety Assessment

For this product a chemical safety assessment was not carried out

SECTION 16 Other Information**Full text of H-Statements referred to under sections 2 and 3.**

H361d Suspected of damaging the unborn child.

H373 May cause damage to organs through prolonged or repeated exposure.

H411 Toxic to aquatic life with long lasting effects

Further information:

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Formedium Ltd. shall not be held liable for any damage resulting from handling or from contact with the above product.

Revision:

Complete SDS revision.

End of document