SAFETY DATA SHEET
2,4,5-Triamino-6-hydroxypyrimidine sulfate

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

1.1. Product identifier

Product name 2,4,5-Triamino-6-hydroxypyrimidine sulfate
Product number FT12125
Synonyms; trade names 2,5,6-Triamino-4-pyrimidol sulfate
CAS number 35011-47-3
EC number 609-054-5

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

Identified uses Laboratory reagent. Manufacture of substances. Research and development.

1.3. Details of the supplier of the safety data sheet

Supplier Carbosynth Ltd
8&9 Old Station Business Park
Compton
Berkshire
RG20 6NE
UK
+44 1635 578444
+44 1635 579444
info@carbosynth.com

1.4. Emergency telephone number

Emergency telephone +44 7887 998634

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (EC 1272/2008)
Physical hazards Not Classified
Health hazards Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 STOT SE 3 - H335
Environmental hazards Not Classified

2.2. Label elements

EC number 609-054-5

Pictogram

Signal word Warning
2,4,5-Triamino-6-hydroxypyrimidine sulfate

Hazard statements
- H315 Causes skin irritation.
- H319 Causes serious eye irritation.
- H335 May cause respiratory irritation.

Precautionary statements
- P261 Avoid breathing dust.
- P264 Wash contaminated skin thoroughly after handling.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P302+P352 IF ON SKIN: Wash with plenty of water.
- P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- P332+P313 If skin irritation occurs: Get medical advice/ attention.
- P337+P313 If eye irritation persists: Get medical advice/ attention.

2.3. Other hazards
No data available.

SECTION 3: Composition/information on ingredients

3.1. Substances
- Product name: 2,4,5-Triamino-6-hydroxypyrimidine sulfate
- CAS number: 35011-47-3
- EC number: 609-054-5
- Chemical formula: C₄H₇N₅OH₂SO₄

SECTION 4: First aid measures

4.1. Description of first aid measures
General information
Get medical advice/attention if you feel unwell.

Inhalation
Remove person to fresh air and keep comfortable for breathing. If breathing stops, provide artificial respiration. When breathing is difficult, properly trained personnel may assist affected person by administering oxygen. Get medical attention if symptoms are severe or persist.

Ingestion
Never give anything by mouth to an unconscious person. Rinse mouth thoroughly with water. Give plenty of water to drink. Get medical attention if symptoms are severe or persist.

Skin contact
Remove contaminated clothing. Rinse with water. Continue to rinse for at least 15 minutes. Wash contaminated clothing before reuse. Get medical attention if symptoms are severe or persist.

Eye contact
Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if symptoms are severe or persist.

4.2. Most important symptoms and effects, both acute and delayed
General information
See Section 11 for additional information on health hazards.

4.3. Indication of any immediate medical attention and special treatment needed
Notes for the doctor
Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media
Suitable extinguishing media
Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Use fire-extinguishing media suitable for the surrounding fire.

5.2. Special hazards arising from the substance or mixture
2,4,5-Triamino-6-hydroxypyrimidine sulfate

**Specific hazards**
None known.

**Hazardous combustion products**
Thermal decomposition or combustion products may include the following substances: Oxides of carbon. Oxides of nitrogen. Oxides of sulphur.

**5.3. Advice for firefighters**

**Special protective equipment for firefighters**
Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing. Firefighter's clothing conforming to European standard EN469 (including helmets, protective boots and gloves) will provide a basic level of protection for chemical incidents. Use protective equipment appropriate for surrounding materials.

**SECTION 6: Accidental release measures**

**6.1. Personal precautions, protective equipment and emergency procedures**

**Personal precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. No action shall be taken without appropriate training or involving any personal risk. Do not touch or walk into spilled material. Avoid inhalation of dust and vapours. Provide adequate ventilation. Keep unnecessary and unprotected personnel away from the spillage.

**6.2. Environmental precautions**

**Environmental precautions**
Avoid discharge into drains or watercourses or onto the ground.

**6.3. Methods and material for containment and cleaning up**

**Methods for cleaning up**
Wear protective clothing as described in Section 8 of this safety data sheet. Collect powder using special dust vacuum cleaner with particle filter or carefully sweep into suitable waste disposal containers and seal securely. Clear up spills immediately and dispose of waste safely. Flush contaminated area with plenty of water. Wash thoroughly after dealing with a spillage. For waste disposal, see Section 13.

**6.4. Reference to other sections**

**Reference to other sections**
For personal protection, see Section 8. See Section 11 for additional information on health hazards. See Section 12 for additional information on ecological hazards. For waste disposal, see Section 13.

**SECTION 7: Handling and storage**

**7.1. Precautions for safe handling**

**Usage precautions**
Wear protective clothing as described in Section 8 of this safety data sheet. Wash hands thoroughly after handling. Provide adequate ventilation. Avoid generation and spreading of dust. Avoid contact with skin and eyes. Avoid inhalation of dust and vapours.

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

**Storage precautions**
Keep container tightly closed. Store in a cool and well-ventilated place. Store away from incompatible materials (see Section 10). Protect from light. Store at room temperature.

**7.3. Specific end use(s)**

**Specific end use(s)**
The identified uses for this product are detailed in Section 1.2.

**SECTION 8: Exposure Controls/personal protection**

**8.1. Control parameters**

**Occupational exposure limits**
No exposure limits known for ingredient(s).

**8.2. Exposure controls**
2,4,5-Triamino-6-hydroxypyrimidine sulfate

**Appropriate engineering controls**
Provide adequate ventilation. Observe any occupational exposure limits for the product or ingredients.

**Eye/face protection**
Unless the assessment indicates a higher degree of protection is required, the following protection should be worn: Tight-fitting safety glasses. Personal protective equipment for eye and face protection should comply with European Standard EN166.

**Hand protection**
Wear protective gloves. To protect hands from chemicals, gloves should comply with European Standard EN374.

**Other skin and body protection**
Wear appropriate clothing to prevent repeated or prolonged skin contact.

**Respiratory protection**
Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Ensure all respiratory protective equipment is suitable for its intended use and is ‘CE’-marked. Particulate filters should comply with European Standard EN143. Full face mask respirators with replaceable filter cartridges should comply with European Standard EN136. Half mask and quarter mask respirators with replaceable filter cartridges should comply with European Standard EN140.

**Environmental exposure controls**
Keep container tightly sealed when not in use.

### 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>Appearance</strong></td>
<td>Solid.</td>
</tr>
<tr>
<td><strong>Colour</strong></td>
<td>Yellow. to Beige.</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>No data available.</td>
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<tr>
<td><strong>Odour threshold</strong></td>
<td>No data available.</td>
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<tr>
<td><strong>pH</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>&gt;300°C</td>
</tr>
<tr>
<td><strong>Initial boiling point and range</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Upper/lower flammability or explosive limits</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Solubility(ies)</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Partition coefficient</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Decomposition Temperature</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>No data available.</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>No data available.</td>
</tr>
</tbody>
</table>
2,4,5-Triamino-6-hydroxypyrimidine sulfate

Oxidising properties

No data available.

9.2. Other information

Molecular weight

239.21

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity

No data available.

10.2. Chemical stability

Stability

Stable under the prescribed storage conditions.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions

No data available.

10.4. Conditions to avoid

Conditions to avoid

No data available.

10.5. Incompatible materials

Materials to avoid

Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products


SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Notes (oral LD₅₀)

Based on available data the classification criteria are not met.

Acute toxicity - dermal

Notes (dermal LD₅₀)

Based on available data the classification criteria are not met.

Acute toxicity - inhalation

Notes (inhalation LC₅₀)

Based on available data the classification criteria are not met.

Skin corrosion/irritation

Animal data

Irritating.

Serious eye damage/irritation

Serious eye damage/irritation

Causes serious eye irritation.

Respiratory sensitisation

Respiratory sensitisation

Based on available data the classification criteria are not met.

Skin sensitisation

Skin sensitisation

Based on available data the classification criteria are not met.

Germ cell mutagenicity

Genotoxicity - in vitro

Based on available data the classification criteria are not met.

Carcinogenicity

Carcinogenicity

Based on available data the classification criteria are not met.
2,4,5-Triamino-6-hydroxypyrimidine sulfate

IARC carcinogenicity
None of the ingredients are listed or exempt.

Reproductive toxicity
Reproductive toxicity - fertility
Based on available data the classification criteria are not met.

Reproductive toxicity - development
Based on available data the classification criteria are not met.

Specific target organ toxicity - single exposure
STOT - single exposure
STOT SE 3 - H335 May cause respiratory irritation.

Target organs
Respiratory system, lungs

Specific target organ toxicity - repeated exposure
STOT - repeated exposure
Not classified as a specific target organ toxicant after repeated exposure.

Aspiration hazard
Not relevant. Solid.

General information
Dust may irritate the eyes and the respiratory system. The severity of the symptoms described will vary dependent on the concentration and the length of exposure.

Inhalation
A single exposure may cause the following adverse effects: Irritation of nose, throat and airway. Difficulty in breathing. Coughing.

Ingestion
May cause irritation.

Skin contact
Redness. Irritating to skin.

Eye contact
Irritating to eyes.

Route of exposure
Ingestion Inhalation Skin and/or eye contact

Target organs
Respiratory system, lungs

SECTION 12: Ecological Information

Ecotoxicity
Not regarded as dangerous for the environment. However, large or frequent spills may have hazardous effects on the environment.

12.1. Toxicity
Toxicity
Based on available data the classification criteria are not met.

12.2. Persistence and degradability
Persistence and degradability
The degradability of the product is not known.

12.3. Bioaccumulative potential
Bioaccumulative potential
No data available on bioaccumulation.

Partition coefficient
No data available.

12.4. Mobility in soil
Mobility
No data available.

12.5. Results of PBT and vPvB assessment
Results of PBT and vPvB assessment
This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects
2,4,5-Triamino-6-hydroxypyrimidine sulfate

Other adverse effects  None known.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information  Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. This material and its container must be disposed of in a safe way. When handling waste, the safety precautions applying to handling of the product should be considered.

SECTION 14: Transport information

General  The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number  Not applicable.

14.2. UN proper shipping name  Not applicable.

14.3. Transport hazard class(es)  No transport warning sign required.

14.4. Packing group  Not applicable.

14.5. Environmental hazards  Environmentally hazardous substance/marine pollutant  No.

14.6. Special precautions for user  Not applicable.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code  Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code  Not applicable.

SECTION 15: Regulatory information

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


15.2. Chemical safety assessment
2,4,5-Triamino-6-hydroxypyrimidine sulfate

No chemical safety assessment has been carried out.

**SECTION 16: Other information**

<table>
<thead>
<tr>
<th>Abbreviations and acronyms used in the safety data sheet</th>
<th>Meaning</th>
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</thead>
<tbody>
<tr>
<td>ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road.</td>
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<tr>
<td>ADN: European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways.</td>
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<tr>
<td>RID: European Agreement concerning the International Carriage of Dangerous Goods by Rail.</td>
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<td>IATA: International Air Transport Association.</td>
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<td>IMDG: International Maritime Dangerous Goods.</td>
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<tr>
<td>CAS: Chemical Abstracts Service.</td>
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<tr>
<td>ATE: Acute Toxicity Estimate.</td>
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<td>LC₅₀: Lethal Concentration to 50 % of a test population.</td>
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<tr>
<td>LD₅₀: Lethal Dose to 50% of a test population (Median Lethal Dose).</td>
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<tr>
<td>EC₅₀: 50% of maximal Effective Concentration.</td>
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<tr>
<td>PBT: Persistent, Bioaccumulative and Toxic substance.</td>
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<tr>
<td>vPvB: Very Persistent and Very Bioaccumulative.</td>
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</tr>
</tbody>
</table>

**Training advice**

Only trained personnel should use this material.

**Revision date**

26/06/2017

**Revision**

1

**SDS number**

144926

**Hazard statements in full**

H315 Causes skin irritation.

H319 Causes serious eye irritation.

H335 May cause respiratory irritation.

This 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. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty, guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.