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

- Product identifier
- Trade name: 3-Ethylaniline
- Part number: N-3112, N-3112-250MG
- CAS Number: 587-02-0
- EC number: 209-594-8
- Relevant identified uses of the substance or mixture and uses advised against
  Reagents and Standards for Analytical Chemical Laboratory Use
- Details of the supplier of the safety data sheet
- Manufacturer/Supplier:
  Agilent Technologies Manufacturing GmbH & Co. KG
  Hewlett-Packard-Str.8
  76337 Waldbronn
  Germany
- Further information obtainable from:
  Telephone: 0800 603 1000
  pdl-msds_author@agilent.com
- Emergency telephone number: CHEMTREC®: +(44)-870-8200418

2 Hazards identification

- Classification of the substance or mixture
- Classification according to Regulation (EC) No 1272/2008

GHS07

Acute Tox. 4 H302 Harmful if swallowed.
Acute Tox. 4 H312 Harmful in contact with skin.
Acute Tox. 4 H332 Harmful if inhaled.
Skin Irrit. 2 H315 Causes skin irritation.
Eye Irrit. 2 H319 Causes serious eye irritation.
STOT SE 3 H335 May cause respiratory irritation.

- Label elements
- Labelling according to Regulation (EC) No 1272/2008
  The substance is classified and labelled according to the CLP regulation.
- Hazard pictograms

GHS07

- Signal word Warning
- Hazard-determining components of labelling:
  3-ethylaniline
- Hazard statements
  H302+H312+H332 Harmful if swallowed, in contact with skin or if inhaled.

(Contd. on page 2)
Trade name: 3-Ethylaniline

---

**Precautionary statements**

- **P101** If medical advice is needed, have product container or label at hand.
- **P102** Keep out of reach of children.
- **P103** Read label before use.
- **P261** Avoid breathing dust/fume/gas/mist/vapours/spray.
- **P264** Wash thoroughly after handling.
- **P270** Do not eat, drink or smoke when using this product.
- **P271** Use only outdoors or in a well-ventilated area.
- **P280** Wear protective gloves/protective clothing/eye protection/face protection.
- **P301+P312** IF SWALLOWED: Call a POISON CENTER/doctor if you feel unwell.
- **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.
- **P321** Specific treatment (see on this label).
- **P330** Rinse mouth.
- **P332+P313** If skin irritation occurs: Get medical advice/attention.
- **P362+P364** Take off contaminated clothing and wash it before reuse.
- **P337+P313** If eye irritation persists: Get medical advice/attention.
- **P403+P233** Store in a well-ventilated place. Keep container tightly closed.
- **P405** Store locked up.
- **P501** Dispose of contents/container in accordance with local/regional/national/international regulations.

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**Other hazards**

**Results of PBT and vPvB assessment**

- **PBT**: Not applicable.
- **vPvB**: Not applicable.

---

**3 Composition/information on ingredients**

**Chemical characterisation: Substances**

- **CAS No. Description**
  - 587-02-0 3-ethylaniline

**Identification number(s)**

- **EC number**: 209-594-8

---

**4 First aid measures**

**Description of first aid measures**

**General information:**

Immediately remove any clothing soiled by the product. Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

**After inhalation:**

Supply fresh air. If required, provide artificial respiration. Keep patient warm. Consult doctor if symptoms persist. In case of unconsciousness place patient stably in side position for transportation.

**After skin contact:** Immediately wash with water and soap and rinse thoroughly.

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(Contd. on page 1)
Trade name: 3-Ethylaniline

<table>
<thead>
<tr>
<th>5 Firefighting measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Extinguishing media</td>
</tr>
<tr>
<td>· Suitable extinguishing agents:</td>
</tr>
<tr>
<td>CO2, powder or water spray. Fight larger fires with water spray or alcohol resistant foam.</td>
</tr>
<tr>
<td>· Special hazards arising from the substance or mixture No further relevant information available.</td>
</tr>
<tr>
<td>· Advice for firefighters</td>
</tr>
<tr>
<td>· Protective equipment: Mouth respiratory protective device.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>6 Accidental release measures</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Personal precautions, protective equipment and emergency procedures Not required.</td>
</tr>
<tr>
<td>· Environmental precautions: Do not allow to enter sewers/ surface or ground water.</td>
</tr>
<tr>
<td>· Methods and material for containment and cleaning up:</td>
</tr>
<tr>
<td>Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust). Dispose contaminated material as waste according to item 13. Ensure adequate ventilation.</td>
</tr>
<tr>
<td>· Reference to other sections</td>
</tr>
<tr>
<td>See Section 7 for information on safe handling.</td>
</tr>
<tr>
<td>See Section 8 for information on personal protection equipment.</td>
</tr>
<tr>
<td>See Section 13 for disposal information.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>7 Handling and storage</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Handling:</td>
</tr>
<tr>
<td>· Precautions for safe handling</td>
</tr>
<tr>
<td>Ensure good ventilation/exhaustion at the workplace. Prevent formation of aerosols.</td>
</tr>
<tr>
<td>· Information about fire - and explosion protection: No special measures required.</td>
</tr>
<tr>
<td>· Conditions for safe storage, including any incompatibilities</td>
</tr>
<tr>
<td>· Storage:</td>
</tr>
<tr>
<td>· Requirements to be met by storerooms and receptacles: No special requirements.</td>
</tr>
<tr>
<td>· Information about storage in one common storage facility: Not required.</td>
</tr>
<tr>
<td>· Further information about storage conditions: Keep container tightly sealed.</td>
</tr>
<tr>
<td>· Specific end use(s) No further relevant information available.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>8 Exposure controls/personal protection</th>
</tr>
</thead>
<tbody>
<tr>
<td>· Additional information about design of technical facilities: No further data; see item 7.</td>
</tr>
</tbody>
</table>
48.1.26

· Control parameters
  · Ingredients with limit values that require monitoring at the workplace: Not required.
  · Additional information: The lists valid during the making were used as basis.

· Exposure controls
· Personal protective equipment:
  · General protective and hygienic measures:
    Keep away from foodstuffs, beverages and feed.
    Immediately remove all soiled and contaminated clothing
    Wash hands before breaks and at the end of work.
    Avoid contact with the eyes and skin.
  · Respiratory protection:
    When used as intended with Agilent instruments the use of the product under normal laboratory conditions and
    with standard practices does not result in significant airborne exposures and therefore respiratory protection is not
    needed.
    Under an emergency condition where a respirator is deemed necessary, use a NIOSH or equivalent approved
    device equipment with appropriate organic or acid gas cartridge.
  · Protection of hands:
    Although not recommended for constant contact with the chemicals or for clean up, nitrile gloves 11-13mil
    thickness are recommended for normal use. The breakthrough time is 1hr. For cleaning a spill where there is direct
    contact of the chemical, butyl rubber gloves are recommended 12-15mil thickness with breakthrough times
    exceeding 4 hrs. Supplier recommendations should be followed.
  · Material of gloves
    For normal use: nitrile rubber, 11-13 mil thickness
    For direct contact with the chemical: butyl rubber, 12-15 mil thickness
    The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and
    varies from manufacturer to manufacturer.
  · Penetration time of glove material
    For normal use: nitrile rubber: 1 hour
    For direct contact with the chemical: butyl rubber: > 4 hours
  · Eye protection:
    Tightly sealed goggles

9 Physical and chemical properties

· Information on basic physical and chemical properties
  · General Information
    · Appearance:
      Form: Fluid
      Colour: Not determined.
      Odour: Characteristic
      Odour threshold: Not determined.
  · pH-value:
    Not determined.
  · Change in condition
    Melting point/freezing point: -64 °C
Trade name: 3-Ethylaniline

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial boiling point and boiling range</td>
<td>214 °C</td>
</tr>
<tr>
<td>Flash point:</td>
<td>85 °C</td>
</tr>
<tr>
<td>Flammability (solid, gas):</td>
<td>Not applicable.</td>
</tr>
<tr>
<td>Decomposition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Auto-ignition temperature:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Explosive properties:</td>
<td>Product does not present an explosion hazard.</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td></td>
</tr>
<tr>
<td>Lower:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Upper:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour pressure:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Density at 20 °C:</td>
<td>0.9896 g/cm³</td>
</tr>
<tr>
<td>Relative density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Vapour density:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Evaporation rate:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solubility in / Miscibility with water:</td>
<td>Not miscible or difficult to mix.</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Viscosity:</td>
<td></td>
</tr>
<tr>
<td>Dynamic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Kinematic:</td>
<td>Not determined.</td>
</tr>
<tr>
<td>Solvent content:</td>
<td></td>
</tr>
<tr>
<td>VOC (EC)</td>
<td>0.00 %</td>
</tr>
<tr>
<td>Other information</td>
<td>No further relevant information available.</td>
</tr>
</tbody>
</table>

10 Stability and reactivity

- Reactivity: No further relevant information available.
- Chemical stability
  - Thermal decomposition / conditions to be avoided: No decomposition if used according to specifications.
  - Possibility of hazardous reactions: No dangerous reactions known.
  - Conditions to avoid: No further relevant information available.
  - Incompatible materials: No further relevant information available.
  - Hazardous decomposition products: No dangerous decomposition products known.

11 Toxicological information

- Information on toxicological effects
- Acute toxicity
  Harmful if swallowed, in contact with skin or if inhaled.

LD/LC50 values relevant for classification:

<table>
<thead>
<tr>
<th>ATE (Acute Toxicity Estimates)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oral</td>
</tr>
<tr>
<td>LD50</td>
</tr>
<tr>
<td>500 mg/kg</td>
</tr>
</tbody>
</table>
Trade name: 3-Ethylaniline

<table>
<thead>
<tr>
<th></th>
<th>Dermal</th>
<th>Inhalative</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50</td>
<td>1,100 mg/kg</td>
<td>11 mg/L</td>
</tr>
<tr>
<td>LC50/4 h</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

- **Primary irritant effect:**
  - **Skin corrosion/irritation**
    Causes skin irritation.
  - **Serious eye damage/irritation**
    Causes serious eye irritation.
  - **Respiratory or skin sensitisation**
    Based on available data, the classification criteria are not met.
  - **CMR effects (carcinogenity, mutagenicity and toxicity for reproduction)**
  - **Germ cell mutagenicity**
    Based on available data, the classification criteria are not met.
  - **Carcinogenicity**
    Based on available data, the classification criteria are not met.
  - **Reproductive toxicity**
    Based on available data, the classification criteria are not met.
  - **STOT-single exposure**
    May cause respiratory irritation.
  - **STOT-repeated exposure**
    Based on available data, the classification criteria are not met.
  - **Aspiration hazard**
    Based on available data, the classification criteria are not met.

### 12 Ecological information

- **Toxicity**
  - **Aquatic toxicity:** No further relevant information available.
  - **Persistence and degradability**
    No further relevant information available.
  - **Behaviour in environmental systems:**
  - **Bioaccumulative potential**
    No further relevant information available.
  - **Mobility in soil**
    No further relevant information available.
  - **Additional ecological information:**
  - **General notes:**
    Water hazard class 1 (German Regulation) (Self-assessment): slightly hazardous for water
    Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
  - **Results of PBT and vPvB assessment**
  - **PBT:** Not applicable.
  - **vPvB:** Not applicable.
  - **Other adverse effects**
    No further relevant information available.

### 13 Disposal considerations

- **Waste treatment methods**
- **Recommendation**
  Must not be disposed together with household garbage. Do not allow product to reach sewage system.

- **European waste catalogue**
  - HP 4 Irritant - skin irritation and eye damage
  - HP 5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
  - HP 6 Acute Toxicity
14 Transport information

- **UN-Number**
- **ADR, IMDG, IATA** UN2810

- **UN proper shipping name**
  - **ADR** 2810 TOXIC LIQUID, ORGANIC, N.O.S. (3-ethylaniline)
  - **IMDG, IATA** TOXIC LIQUID, ORGANIC, N.O.S. (3-ethylaniline)

- **Transport hazard class(es)**
  - **ADR, IMDG, IATA**
    - **Class** 6.1 Toxic substances.
    - **Label** 6.1

- **Packing group**
  - **ADR, IMDG, IATA** III

- **Environmental hazards:** Not applicable.

- **Special precautions for user** Warning: Toxic substances.
  - **Danger code (Kemler):** 60
  - **EMS Number:** F-A,S-A
  - **Stowage Category** A
  - **Stowage Code** SW2 Clear of living quarters.

- **Transport in bulk according to Annex II of Marpol and the IBC Code** Not applicable.

- **Transport/Additional information:**
  - **ADR**
    - **Limited quantities (LQ):** 5L
    - **Excepted quantities (EQ):** Code: E1
      - Maximum net quantity per inner packaging: 30 ml
      - Maximum net quantity per outer packaging: 1000 ml
  
  - **Transport category** 2
    - **Tunnel restriction code** E

- **IMDG**
  - **Limited quantities (LQ):** 5L
  - **Excepted quantities (EQ):** Code: E1
    - Maximum net quantity per inner packaging: 30 ml
    - Maximum net quantity per outer packaging: 1000 ml

(Contd. of page 6)

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.

(Contd. on page 8)
Trade name: 3-Ethylaniline

15 Regulatory information

· Safety, health and environmental regulations/legislation specific for the substance or mixture
· Directive 2012/18/EU
· Named dangerous substances - ANNEX I Substance is not listed.
· REGULATION (EC) No 1907/2006 ANNEX XVII Conditions of restriction: 3
· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

The information contained in this document is based on Agilent’s state of knowledge at the time of preparation. No warranty as to its accurateness, completeness or suitability for a particular purpose is expressed or implied.

· Abbreviations and acronyms:
  ADR: Accord européen sur le transport des marchandises dangereuses par Route (European Agreement concerning the International Carriage of Dangerous Goods by Road)
  IMDG: International Maritime Code for Dangerous Goods
  IATA: International Air Transport Association
  GHS: Globally Harmonised System of Classification and Labelling of Chemicals
  EINECS: European Inventory of Existing Commercial Chemical Substances
  CAS: Chemical Abstracts Service (division of the American Chemical Society)
  VOC: Volatile Organic Compounds (USA, EU)
  LC50: Lethal concentration, 50 percent
  LD50: Lethal dose, 50 percent
  PBT: Persistent, Bioaccumulative and Toxic
  vPvB: very Persistent and very Bioaccumulative
  Acute Tox. 4: Acute toxicity – Category 4
  Skin Irrit. 2: Skin corrosion/irritation – Category 2
  Eye Irrit. 2: Serious eye damage/eye irritation – Category 2
  STOT SE 3: Specific target organ toxicity (single exposure) – Category 3