1. PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifiers
Product name: p-Anisidine
Product Number: A88255
Brand: Aldrich

1.2 Relevant identified uses of the substance or mixture and uses advised against
Identified uses: Laboratory chemicals, Synthesis of substances

1.3 Details of the supplier of the safety data sheet
Company: Sigma-Aldrich
3050 Spruce Street
SAINT LOUIS MO  63103
USA
Telephone: +1 800-325-5832
Fax: +1 800-325-5052

1.4 Emergency telephone number
Emergency Phone #: (314) 776-6555

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture
GHS Classification in accordance with 29 CFR 1910 (OSHA HCS)
Acute toxicity, Oral (Category 3), H301
Acute toxicity, Inhalation (Category 2), H330
Acute toxicity, Dermal (Category 1), H310
Respiratory sensitisation (Category 1), H334
Skin sensitisation (Category 1), H317
Carcinogenicity (Category 1B), H350
Acute aquatic toxicity (Category 1), H400

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

2.2 GHS Label elements, including precautionary statements
Pictogram

Signal word: Danger
Hazard statement(s)
H301: Toxic if swallowed.
H310 + H330: Fatal in contact with skin or if inhaled
H317: May cause an allergic skin reaction.
H334: May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H350: May cause cancer.
H400: Very toxic to aquatic life.

Precautionary statement(s)
P201: Obtain special instructions before use.
P202  Do not handle until all safety precautions have been read and understood.
P260  Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
P262  Do not get in eyes, on skin, or on clothing.
P264  Wash skin thoroughly after handling.
P270  Do not eat, drink or smoke when using this product.
P271  Use only outdoors or in a well-ventilated area.
P272  Contaminated work clothing should not be allowed out of the workplace.
P273  Avoid release to the environment.
P274  Do not inhale dust/ fume/ gas/ mist/ vapours/ spray.
P280  Wear protective gloves/ protective clothing.
P282  Wear respiratory protection.
P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/doctor.
P302 + P350 IF ON SKIN: Gently wash with plenty of soap and water.
P303 + P360 IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310  Immediately call a POISON CENTER/doctor.
P320  Specific treatment is urgent (see supplemental first aid instructions on this label).
P330  Rinse mouth.
P333 + P313 IF SKIN IRRITATION: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P361  Remove/Take off immediately all contaminated clothing.
P362  Avoid release to the environment.
P363  Wash contaminated clothing before reuse.
P391  Collect spillage.
P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
P405  Store locked up.
P501  Dispose of contents/ container to an approved waste disposal plant.

2.3  Hazards not otherwise classified (HNOC) or not covered by GHS - none

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2  Mixtures

Synonyms  :  4-Aminoanisole
             4-Methoxyaniline

Formula     :  C₇H₉NO
Molecular weight :  123.15 g/mol

Hazardous components

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Anisidine</td>
<td>Acute Tox. 2; Acute Tox. 1; Aquatic Acute 1; H300 + H310 + H330, H400</td>
<td>&gt;= 90 - &lt;= 100 %</td>
</tr>
</tbody>
</table>

2-Methoxyaniline  Included in the Candidate List of Substances of Very High Concern (SVHC) according to Regulation (EC) No. 1907/2006 (REACH)

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyaniline</td>
<td>Acute Tox. 3; Muta. 2; Carc. 1B; Aquatic Acute 2; H301 + H311 + H331, H341, H350, H401</td>
<td>&gt;= 0.1 - &lt; 1 %</td>
</tr>
</tbody>
</table>

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

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. Move out of dangerous area.
If inhaled
If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

In case of skin contact
Wash off with soap and plenty of water. Take victim immediately to hospital. Consult a physician.

In case of eye contact
Flush eyes with water as a precaution.

If swallowed
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

5. FIREFIGHTING MEASURES
5.1 Extinguishing media
Suitable extinguishing media
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

5.2 Special hazards arising from the substance or mixture
No data available

5.3 Advice for firefighters
Wear self-contained breathing apparatus for firefighting if necessary.

5.4 Further information
No data available

6. ACCIDENTAL RELEASE MEASURES
6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. 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 materials 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.

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.

7.2 Conditions for safe storage, including any incompatibilities
Keep container tightly closed in a dry and well-ventilated place. Store under nitrogen. Air sensitive. Moisture sensitive.

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated
8. EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Components with workplace control parameters

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS-No.</th>
<th>Value</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-Anisidine</td>
<td>104-94-9</td>
<td>TWA</td>
<td>0.500000 mg/m³</td>
<td>USA. ACGIH Threshold Limit Values (TLV)</td>
</tr>
<tr>
<td>Remarks</td>
<td></td>
<td></td>
<td></td>
<td>Methemoglobinemia</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Substances for which there is a Biological Exposure Index or Indices (see BEI® section), see BEI® for Methemoglobin Inducers</td>
</tr>
<tr>
<td></td>
<td></td>
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<td></td>
<td>Not classifiable as a human carcinogen</td>
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<tr>
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<td></td>
<td></td>
<td>Danger of cutaneous absorption</td>
</tr>
<tr>
<td>TWA</td>
<td></td>
<td></td>
<td>0.500000 mg/m³</td>
<td>USA. NIOSH Recommended Exposure Limits</td>
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<tr>
<td>Remarks</td>
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<tr>
<td>TWA</td>
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<td></td>
<td>0.5 mg/m³</td>
<td>USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants</td>
</tr>
<tr>
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<td>USA. ACGIH Threshold Limit Values (TLV)</td>
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<td>Skin designation</td>
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</tbody>
</table>

8.2 Exposure controls

Appropriate engineering controls
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.
Personal protective equipment

Eye/face protection
Face shield and safety glasses 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.

Full contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Splash contact
Material: Nitrile rubber
Minimum layer thickness: 0.11 mm
Break through time: 480 min
Material tested:Dermatril® (KCL 740 / Aldrich Z677272, Size M)

data source: KCL GmbH, D-36124 Eichenzell, phone +49 (0)6659 87300, e-mail sales@kcl.de, test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrial hygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

Body Protection
Complete suit protecting against chemicals, 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.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

| a)  | Appearance                           | Form: solid                   |
|     | Colour: dark brown                  |                               |
| b)  | Odour                                | No data available             |
| c)  | Odour Threshold                      | No data available             |
| d)  | pH                                   | No data available             |
| e)  | Melting point/freezing point         | Melting point/range: 56 - 59 °C (133 - 138 °F) - lit. |
| f)  | Initial boiling point and boiling range | 240 - 243 °C (464 - 469 °F) - lit. |
| g)  | Flash point                          | 122 °C (252 °F) - closed cup  |
| h)  | Evaporation rate                     | No data available             |
| i)  | Flammability (solid, gas)            | No data available             |
| j)  | Upper/lower                          | No data available             |
flammability or explosive limits

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 No data available
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

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
No data available

10.6 Hazardous decomposition products
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)
Hazardous decomposition products formed under fire conditions. - Carbon oxides, Nitrogen oxides (NOx)
Other decomposition products - No data available
In the event of fire: see section 5

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity
No data available

Inhalation: No data available
Dermal: No data available
No data available

Skin corrosion/irritation
No data available

Serious eye damage/eye irritation
No data available

Respiratory or skin sensitisation
No data available
Germ cell mutagenicity

No data available

Carcinogenicity

IARC: 2B - Group 2B: Possibly carcinogenic to humans (2-Methoxyaniline)
IARC: 3 - Group 3: Not classifiable as to its carcinogenicity to humans (p-Anisidine)
IARC: 2B - Group 2B: Possibly carcinogenic to humans (2-Methoxyaniline)
NTP: Reasonably anticipated to be a human carcinogen (2-Methoxyaniline)
NTP: Reasonably anticipated to be a human carcinogen (2-Methoxyaniline)
OSHA: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA.

Reproductive toxicity

No data available

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: Not available
Liver - Irregularities - Based on Human Evidence
Liver - Irregularities - Based on Human Evidence

12. ECOLOGICAL INFORMATION

12.1 Toxicity
No data available

12.2 Persistence and degradability
No data available

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
An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Very toxic to aquatic life.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

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

14. TRANSPORT INFORMATION

DOT (US)
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: Toxic solids, organic, n.o.s. (p-Anisidine)
Reportable Quantity (RQ): 100000 lbs
Marine pollutant:yes
Poison Inhalation Hazard: No

IMDG
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: TOXIC SOLID, ORGANIC, N.O.S. (p-Anisidine)
EMS-No: F-A, S-A

IATA
UN number: 2811  Class: 6.1  Packing group: III
Proper shipping name: Toxic solid, organic, n.o.s. (p-Anisidine)

15. REGULATORY INFORMATION

SARA 302 Components
No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components
The following components are subject to reporting levels established by SARA Title III, Section 313:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>p-Anisidine</td>
<td>104-94-9</td>
</tr>
<tr>
<td>2-Methoxyaniline</td>
<td>90-04-0</td>
</tr>
</tbody>
</table>

SARA 311/312 Hazards
Acute Health Hazard, Chronic Health Hazard

Massachusetts Right To Know Components

<table>
<thead>
<tr>
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<tr>
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<td>2-Methoxyaniline</td>
<td>90-04-0</td>
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</tbody>
</table>

Pennsylvania Right To Know Components

<table>
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<tr>
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<th>Revision Date</th>
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</thead>
<tbody>
<tr>
<td>p-Anisidine</td>
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</tr>
<tr>
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<td>90-04-0</td>
</tr>
</tbody>
</table>

New Jersey Right To Know Components

<table>
<thead>
<tr>
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</tr>
</thead>
<tbody>
<tr>
<td>p-Anisidine</td>
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</tr>
<tr>
<td>2-Methoxyaniline</td>
<td>90-04-0</td>
</tr>
</tbody>
</table>

California Prop. 65 Components
WARNING! This product contains a chemical known to the State of California to cause cancer.

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Revision Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2-Methoxyaniline</td>
<td>90-04-0</td>
</tr>
</tbody>
</table>

WARNING! This product contains a chemical known to the State of California to cause cancer.

16. OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3.
Acute Tox.  Acute toxicity
Aquatic Acute  Acute aquatic toxicity
Carc.  Carcinogenicity
H300 + H310  Fatal if swallowed, in contact with skin or if inhaled
H330
H301  Toxic if swallowed.
H301 + H311 +  Toxic if swallowed, in contact with skin or if inhaled
H331
H310  Fatal in contact with skin.
H317  May cause an allergic skin reaction.
H330  Fatal if inhaled.
H341  May cause allergy or asthma symptoms or breathing difficulties if inhaled.
H341  Suspected of causing genetic defects.
H350  May cause cancer.
H400  Very toxic to aquatic life.
H401  Toxic to aquatic life.

**HMIS Rating**
Health hazard:  4
Chronic Health Hazard:  *
Flammability:  1
Physical Hazard  0

**NFPA Rating**
Health hazard:  4
Fire Hazard:  1
Reactivity Hazard:  0

**Further information**
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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. Sigma-Aldrich Corporation and its Affiliates shall not be held liable for any damage resulting from handling
or from contact with the above product. See www.sigma-aldrich.com and/or the reverse side of invoice or packing
slip for additional terms and conditions of sale.

**Preparation Information**
Sigma-Aldrich Corporation
Product Safety – Americas Region
1-800-521-8956

Version: 5.7  Revision Date: 05/24/2016  Print Date: 05/28/2016