# Aniline
**CAS No 62-53-3**

## MATERIAL SAFETY DATA SHEET
**SDS/MSDS**

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

### 1.1 Product identifiers

<table>
<thead>
<tr>
<th>Product name</th>
<th>Aniline</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.</td>
<td>62-53-3</td>
</tr>
</tbody>
</table>

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

- Identified uses: Laboratory chemicals, Industrial & for professional use only.

### 1.3 Details of the supplier of the safety data sheet

- Company: Central Drug House (P) Ltd
  - 7/28 Vardaan House
  - New Delhi-10002
  - INDIA
- Telephone: +91 11 49404040
- Email: care@cdhfinechemical.com

### 1.4 Emergency telephone number

- Emergency Phone #: +91 11 49404040 (9:00am - 6:00 pm) [Office hours]

## SECTION 2: Hazards identification

### 2.1 Classification of the substance or mixture

**Classification according to Regulation (EC) No 1272/2008**

- Acute toxicity, Oral (Category 3), H301
- Acute toxicity, Inhalation (Category 3), H331
- Acute toxicity, Dermal (Category 3), H311
- Serious eye damage (Category 1), H318
- Skin sensitisation (Category 1), H317
- Germ cell mutagenicity (Category 2), H341
- Carcinogenicity (Category 2), H351
- Specific target organ toxicity - repeated exposure (Category 1), H372
- Specific target organ toxicity - repeated exposure (Category 1), Blood, H372
- Acute aquatic toxicity (Category 1), H400
- Chronic aquatic toxicity (Category 1), H410

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

**Classification according to EU Directives 67/548/EEC or 1999/45/EC**

- Toxic: R23/24/25, R48/23/24/25, R40, R68
- Irritant: R41, R43
2.2 **Label elements**

**Labelling according Regulation (EC) No 1272/2008**

**Pictogram**

![Pictogram Image]

**Signal word**  
Danger

**Hazard statement(s)**

- **H301 + H311 + H331**: Toxic if swallowed, in contact with skin or if inhaled.
- **H317**: May cause an allergic skin reaction.
- **H318**: Causes serious eye damage.
- **H341**: Suspected of causing genetic defects.
- **H351**: Suspected of causing cancer.
- **H372**: Causes damage to organs (Blood) through prolonged or repeated exposure.
- **H410**: Very toxic to aquatic life with long lasting effects.

**Precautionary statement(s)**

- **P261**: Avoid breathing vapours.
- **P273**: Avoid release to the environment.
- **P280**: Wear protective gloves/eye protection/face protection.
- **P301 + P310**: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
- **P305 + P351 + P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P311**: Call a POISON CENTER or doctor/physician.

**Supplemental Hazard Statements**

none

2.3 **Other hazards**

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

**SECTION 3: Composition/information on ingredients**

3.1 **Substances**

<table>
<thead>
<tr>
<th>Molecular weight</th>
<th>93.13 g/mol</th>
</tr>
</thead>
<tbody>
<tr>
<td>CAS-No.</td>
<td>62-53-3</td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-539-3</td>
</tr>
<tr>
<td>Index-No.</td>
<td>612-008-00-7</td>
</tr>
</tbody>
</table>

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

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
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<tr>
<td><strong>Aniline</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>62-53-3</td>
<td>Acute Tox. 3; Eye Dam. 1; &lt;= 100 %</td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-539-3</td>
<td>Skin Sens. 1; Muta. 2; Carc. 2; STOT RE 1; Aquatic Acute 1; Aquatic Chronic 1; H301 + H311 + H331, H317, H318, H341, H351, H372, H410</td>
</tr>
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**Hazardous ingredients according to Directive 1999/45/EC**

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<td></td>
<td></td>
</tr>
<tr>
<td>CAS-No.</td>
<td>62-53-3</td>
<td>T, N, Carc.Cat.3, Mut.Cat.3, &lt;= 100 %</td>
</tr>
<tr>
<td>EC-No.</td>
<td>200-539-3</td>
<td>R23/24/25 - R40 - R41 - R43 -</td>
</tr>
</tbody>
</table>
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.

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

If swallowed
Do NOT induce vomiting. 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: 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
Carbon oxides, Nitrogen oxides (NOx)

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

5.4 Further information
Use water spray to cool unopened containers.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures
Wear respiratory protection. Avoid breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Beware of vapours accumulating to form explosive concentrations. Vapours can accumulate in low areas. 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
Contain spillage, and then collect with an electrically protected vacuum cleaner or by wet-brushing and place in container for disposal according to local regulations (see section 13). 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 inhalation of vapour or mist.
Keep away from sources of ignition - No smoking. Take measures to prevent the build up of electrostatic charge.
For precautions see section 2.2.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Storage class (TRGS 510): Non-combustible, acute toxic Cat. 1 and 2 / very toxic hazardous materials

7.3 Specific end use(s)
Apart from the uses mentioned in section 1.2 no other specific uses are stipulated

SECTION 8: Exposure controls/personal protection

8.1 Control parameters
Components with workplace control parameters

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
Tightly fitting safety goggles. Faceshield (8-inch minimum). 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.

The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

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 respirator with multi-purpose combination (US) or type ABEK (EN 14387) 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: liquid
b) Odour No data available
c) Odour Threshold  No data available

d) pH  8,8 at 36 g/l at 20 °C

e) Melting point/freezing point  Melting point/range: -5,99 °C

f) Initial boiling point and boiling range  184 °C at 1.013 hPa
                                  70 - 71 °C at 13 hPa

g) Flash point  70 °C - closed cup

h) Evaporation rate  No data available

i) Flammability (solid, gas)  No data available

j) Upper/lower flammability or explosive limits  
   Upper explosion limit: 23 % (V)
   Lower explosion limit: 1,3 % (V)

k) Vapour pressure  0,49 hPa at 20 °C
                                  0,8 hPa at 20 °C

l) Vapour density  3,22 - (Air = 1.0)

m) Relative density  1,021 g/cm3

n) Water solubility  soluble

o) Partition coefficient: n-octanol/water  log Pow: 0,91

p) Auto-ignition temperature  No data available

q) Decomposition temperature  190 °C -

r) Viscosity  No data available

s) Explosive properties  No data available

t) Oxidizing properties  No data available

9.2 Other safety information

   Surface tension  42,12 mN/m at 25 °C
   Relative vapour density  3,22 - (Air = 1.0)

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
   Heat, flames and sparks.

10.5 Incompatible materials
   Oxidizing agents, Iron and iron salts., Zinc

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 - 250 mg/kg
LC50 Inhalation - Mouse - 4 h - 248 ppm
LD50 Dermal - Rabbit - 836 mg/kg

Skin corrosion/irritation
Skin - Rabbit
Result: No skin irritation

Serious eye damage/eye irritation
Eyes - Rabbit
Result: Severe eye irritation

Respiratory or skin sensitisation
May cause sensitisation by skin contact.

Germ cell mutagenicity
Laboratory experiments have shown mutagenic effects. In vitro 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.

Limited evidence of carcinogenicity in animal studies

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

Reproductive toxicity
No data available

Specific target organ toxicity - single exposure
No data available

Specific target organ toxicity - repeated exposure
Causes damage to organs through prolonged or repeated exposure. - Blood

Aspiration hazard
No data available

Additional Information
RTECS: Not available

Absorption into the body leads to the formation of methemoglobin which in sufficient concentration causes cyanosis. Onset may be delayed 2 to 4 hours or longer., Cyanosis, Headache, Vomiting, Nausea, Incoordination., fatigue, Dizziness, Drowsiness, Confusion., Weakness, Unconsciousness, Symptoms may be delayed.
To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

SECTION 12: Ecological information

12.1 Toxicity

Toxicity to fish  LC50 - Oncorhynchus mykiss (rainbow trout) - 10,6 mg/l - 96,0 h
Toxicity to daphnia and other aquatic invertebrates  EC50 - Daphnia magna (Water flea) - 80 - 380 mg/l - 48 h
semi-static test EC50 - Daphnia magna (Water flea) - 0.16 mg/l - 48 h

toxicity to algae EC50 - SELENASTRUM - 19 mg/l - 72 h

12.2 Persistence and degradability
Biodegradability aerobic - Exposure time 30 d
(result: 90 % - Readily biodegradable.
(OECD Test Guideline 301D)

12.3 Bioaccumulative potential
No data available

12.4 Mobility in soil
No data available

12.5 Results of PBT and vPvB assessment
This substance/mixture contains no components considered to be either persistent, bioaccumulative and
toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Other adverse effects
Very toxic to aquatic life with long lasting effects.

SECTION 13: Disposal considerations

13.1 Waste treatment methods
Product
This combustible material may be burned in a chemical incinerator equipped with an afterburner and
scrubber. Offer surplus and non-recyclable solutions to a licensed disposal company.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

14.1 UN number
ADR/RID: 1547 IMDG: 1547 IATA: 1547

14.2 UN proper shipping name
ADR/RID: ANILINE IMDG: ANILINE IATA: Aniline

14.3 Transport hazard class(es)
ADR/RID: 6.1 IMDG: 6.1 IATA: 6.1

14.4 Packaging group
ADR/RID: II IMDG: II IATA: II

14.5 Environmental hazards
ADR/RID: yes IMDG Marine pollutant: yes IATA: no

14.6 Special precautions for user
No data available

SECTION 15: Regulatory information

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
No data available

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.

<table>
<thead>
<tr>
<th>Acute Tox.</th>
<th>Acute toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Acute</td>
<td>Acute aquatic toxicity</td>
</tr>
<tr>
<td>Aquatic Chronic</td>
<td>Chronic aquatic toxicity</td>
</tr>
<tr>
<td>Carc.</td>
<td>Carcinogenicity</td>
</tr>
<tr>
<td>Eye Dam.</td>
<td>Serious eye damage</td>
</tr>
<tr>
<td>H301</td>
<td>Toxic if swallowed.</td>
</tr>
<tr>
<td>H301 + H311 +</td>
<td>Toxic if swallowed, in contact with skin or if inhaled</td>
</tr>
<tr>
<td>H311</td>
<td>Toxic in contact with skin.</td>
</tr>
<tr>
<td>H317</td>
<td>May cause an allergic skin reaction.</td>
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<td>H318</td>
<td>Causes serious eye damage.</td>
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<td>H331</td>
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<td>Suspected of causing genetic defects.</td>
</tr>
<tr>
<td>H351</td>
<td>Suspected of causing cancer.</td>
</tr>
</tbody>
</table>

Full text of R-phrases referred to under sections 2 and 3

| N | Dangerous for the environment |
| T | Toxic |
| R23/24/25 | Toxic by inhalation, in contact with skin and if swallowed. |
| R40 | Limited evidence of a carcinogenic effect. |
| R41 | Risk of serious damage to eyes. |
| R43 | May cause sensitisation by skin contact. |
| R48/23/24/25 | Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. |
| R50 | Very toxic to aquatic organisms. |
| R68 | Possible risk of irreversible 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. Central Drug House (P) Ltd and its Affiliates shall not be held liable for any damage resulting from handling or from contact with the above product. See www.cdhfinechemical.com for additional terms and conditions of sale.