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

1.1 Product identifiers
Product name: 4-Nitro Benzaldehyde
CAS-No.: 555-16-8

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 -110002
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
Eye irritation (Category 2), H319
Skin sensitisation (Category 1), H317

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

2.2 Label elements
Labelling according Regulation (EC) No 1272/2008

Pictogram

Signal word: Warning

Hazard statement(s)
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

Precautionary statement(s)
P280 Wear protective gloves.
P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
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
Formula : O₂NC₆H₄CHO
Molecular weight : 151.12 g/mol
CAS-No. : 555-16-8
EC-No. : 209-084-5

<table>
<thead>
<tr>
<th>Component</th>
<th>Classification</th>
<th>Concentration</th>
</tr>
</thead>
<tbody>
<tr>
<td>4-Nitrobenzaldehyde</td>
<td>Eye Irrit. 2; Skin Sens. 1;</td>
<td>&lt;= 100 %</td>
</tr>
<tr>
<td>CAS-No.</td>
<td>555-16-8</td>
<td></td>
</tr>
<tr>
<td>EC-No.</td>
<td>209-084-5</td>
<td>H319, H317</td>
</tr>
</tbody>
</table>

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

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. 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
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
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. 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.

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.

7.2 Conditions for safe storage, including any incompatibilities
Store in cool place. Keep container tightly closed in a dry and well-ventilated place.
Storage class (TRGS 510): Non Combustible Solids

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

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
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.

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
For nuisance exposures use type P95 (US) or type P1 (EU EN 143) particle r (US) or type ABEK-P2 (EU EN 143) respirator cartridges. 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: powder
   - Colour: light yellow

b) Odour
   - No data available

c) Odour Threshold
   - No data available

d) pH
   - No data available

e) Melting point/freezing point
   - Melting point/range: 103 - 106 °C - lit.

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: 0.767

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

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 bases, Strong reducing agents
10.6 **Hazardous decomposition products**
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

SECTION 11: Toxicological information

11.1 **Information on toxicological effects**

**Acute toxicity**
LD50 Oral - Rat - 4,700 mg/kg(4-Nitrobenzaldehyde)
Remarks: Behavioral:Somnolence (general depressed activity). Cyanosis Blood:Normocytic anemia. LD50 Dermal - Rat - 16,000 mg/kg(4-Nitrobenzaldehyde)

**Skin corrosion/irritation**
No data available(4-Nitrobenzaldehyde)

**Serious eye damage/eye irritation**
No data available(4-Nitrobenzaldehyde)

**Respiratory or skin sensitisation**
The preceding data, or interpretation of data, was determined using Quantitative Structure Activity Relationship (QSAR) modeling.(4-Nitrobenzaldehyde)

**Germ cell mutagenicity**
Histidine reversion (Ames)(4-Nitrobenzaldehyde)

**Carcinogenicity**
IARC: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

**Reproductive toxicity**
No data available(4-Nitrobenzaldehyde)

**Specific target organ toxicity - single exposure**
No data available(4-Nitrobenzaldehyde)

**Specific target organ toxicity - repeated exposure**
No data available

**Aspiration hazard**
No data available(4-Nitrobenzaldehyde)

**Additional Information**
RTECS: CU7350000

prolonged or repeated exposure can cause.; narcosis(4-Nitrobenzaldehyde)

SECTION 12: Ecological information

12.1 **Toxicity**

**Toxicity to fish**  
LC50 - Pimephales promelas (fathead minnow) - 10.1 mg/l - 96.0 h(4-Nitrobenzaldehyde)
LC0 - Pimephales promelas (fathead minnow) - 10.1 mg/l - 96.0 h(4-Nitrobenzaldehyde)

12.2 **Persistence and degradability**
No data available

12.3 **Bioaccumulative potential**
No data available
12.4 Mobility in soil
No data available (4-Nitrobenzaldehyde)

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
Harmful to aquatic life.
No data available

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 chem scrubber.

Contaminated packaging
Dispose of as unused product.

SECTION 14: Transport information

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

14.2 UN proper shipping name
ADR/RID: Not dangerous goods
IMDG: Not dangerous goods
IATA: Not dangerous goods

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

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

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

14.6 Special precautions for user
No data available

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. 1907/2006.

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.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.

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.