

**Adipic Acid  
CAS No 124-04-9**

**MATERIAL SAFETY DATA SHEET  
SDS/MSDS**

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

**1.1 Product identifiers**

Product name : **Adipic Acid**

CAS-No. : 124-04-9

**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  
Ansari Road Daryaganj  
New Delhi-110002  
INDIA

Telephone : +91 11 49404040

Email : [care@cdhfinechemical.com](mailto: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**

Serious eye damage (Category 1), H318

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

Danger

Hazard statement(s)  
H318

Causes serious eye damage.

Precautionary statement(s)  
P280  
P305 + P351 + P338

Wear protective gloves/ eye protection/ face protection.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

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

Synonyms : Hexanedioic acid  
Formula : C<sub>6</sub>H<sub>10</sub>O<sub>4</sub>  
Molecular weight : 146.14 g/mol  
CAS-No. : 124-04-9  
EC-No. : 204-673-3  
Index-No. : 607-144-00-9

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

Component	Classification	Concentration
<b>Adipic acid</b>		
CAS-No.	124-04-9	1; H318
EC-No.	204-673-3	
Index-No.	607-144-00-9	

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

### 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. 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.

### SECTION 7: Handling and storage

#### 7.1 Precautions for safe handling

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

Where risk assessment shows air-purifying respirators are appropriate use (EN 143) respirator cartridges as a backup to engineering controls. If th 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: crystalline Colour: white
b) Odour	No data available
c) Odour Threshold	No data available
d) pH	2.7 at 23 g/l at 25 °C
e) Melting point/freezing point	Melting point/range: 151 - 154 °C
f) Initial boiling point and boiling range	265 °C at 133 hPa - lit.
g) Flash point	196 °C - closed cup
h) Evaporation rate	No data available
i) Flammability (solid, gas)	May form combustible dust concentrations in air.
j) Upper/lower flammability or explosive limits	No data available
k) Vapour pressure	1 mmHg at 159.5 °C 0.097 hPa at 18.5 °C
l) Vapour density	No data available
m) Relative density	No data available
n) Water solubility	soluble
o) Partition coefficient: n-octanol/water	log Pow: 0.093 at 25 °C
p) Auto-ignition temperature	> 400 °C
q) Decomposition temperature	No data available
r) Viscosity	No data available
s) Explosive properties	Not explosive
t) Oxidizing properties	No data available

### 9.2 Other safety information

Bulk density	0.7 g/l
Solubility in other solvents	Methanol - soluble Ethanol - soluble Acetone - soluble Benzene - slightly soluble
Dissociation constant	4.43 at 20 °C

## 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

### 10.6 Hazardous decomposition products

Hazardous decomposition products formed under fire conditions. - Carbon oxides

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 - male and female - 5,560 mg/kg(Adipic acid)

(OECD Test Guideline 401)

LC0 Inhalation - Rat - male and female - 4 h - > 7.7 mg/l(Adipic acid)

(OECD Test Guideline 403)

LD0 Dermal - Rabbit - male and female - 7,940 mg/kg(Adipic acid)

#### Skin corrosion/irritation

Skin - Rabbit(Adipic acid)

Result: Mild skin irritation - 24 h

(OECD Test Guideline 404)

#### Serious eye damage/eye irritation

Eyes - Rabbit(Adipic acid)

Result: Risk of serious damage to eyes. - 24 h

(OECD Test Guideline 405)

#### Respiratory or skin sensitisation

Maximisation Test - Guinea pig(Adipic acid)

Result: Does not cause skin sensitisation.

#### Germ cell mutagenicity

Hamster(Adipic acid)

fibroblast

Result: negative

(Adipic acid)

Rat - male

Result: negative

#### 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(Adipic acid)

#### Specific target organ toxicity - single exposure

No data available(Adipic acid)

**Specific target organ toxicity - repeated exposure**

No data available

**Aspiration hazard**

No data available(Adipic acid)

**Additional Information**

RTECS: AU8400000

To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.(Adipic acid)

**SECTION 12: Ecological information****12.1 Toxicity**

Toxicity to fish	static test LC0 - Brachydanio rerio (zebrafish) - $\geq$ 1,000 mg/l - 96 h(Adipic acid)
Toxicity to daphnia and other aquatic invertebrates	Immobilization LC50 - Daphnia magna (Water flea) - 46 mg/l - 48 h(Adipic acid) (OECD Test Guideline 202)
Toxicity to algae	static test EC50 - Pseudokirchneriella subcapitata (algae) - 59 mg/l - 72 h(Adipic acid) (OECD Test Guideline 201)
Toxicity to bacteria	Respiration inhibition EC50 - Sludge Treatment - 7,910 mg/l - 3 h(Adipic acid) (OECD Test Guideline 209)

**12.2 Persistence and degradability**

Biodegradability aerobic - Exposure time 30 d(Adipic acid)  
Result: 83 % - Readily biodegradable  
(OECD Test Guideline 301D)

**12.3 Bioaccumulative potential**

No data available

**12.4 Mobility in soil**

No data available(Adipic acid)

**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.

**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.

H318    Causes serious eye damage.

### 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](http://www.cdhfinechemical.com) for additional terms and conditions of sale.