



**Material Safety Data Sheet**  
**Adipic Acid**

**SECTION 1.1 – PRODUCT IDENTIFICATION**

**Product name** : **Adipic Acid**  
**Molecular formula** : **C6H10O4**  
**Molecular weight** : **146.14**  
**CAS no.** : **124-04-9**

**SECTION: 1.2 – COMPANY IDENTIFICATION**

**Company Name: Indenta Chemicals (India) Pvt. Ltd.**

**Address:** 201, Adamji Building, 413, Narshi Natha Street, Mumbai -400 009. (India)

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**SECTION 2: HAZARD IDENTIFICATION**

**Classification**

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

<b>Serious Eye Damage/Eye Irritation</b>	<b>Category 2</b>
<b>Specific target organ toxicity (single exposure)</b>	<b>Category 3</b>
<b>Target Organs - Respiratory system.</b>	

**Label Elements**

**Signal Word**

Warning

**Hazard Statements**

Causes serious eye irritation

May cause respiratory irritation

**Precautionary Statements**

**Prevention**

Wash face, hands and any exposed skin thoroughly after handling

Wear eye/face protection  
 Avoid breathing dust/fume/gas/mist/vapors/spray  
 Use only outdoors or in a well-ventilated area

**Inhalation**

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing  
 Call a POISON CENTER or doctor/physician if you feel unwell

**Eyes**

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing

If eye irritation persists: Get medical advice/attention

**Storage**

Store in a well-ventilated place. Keep container tightly closed  
 Store locked up

**Disposal**

Dispose of contents/container to an approved waste disposal plant

**Hazards not otherwise classified (HNOC)**

None identified

**SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS**

Component	CAS No	Weight %
Adipic Acid	124-04-9	>95

**SECTION 4: FIRST AID MEASURES**

**Eye Contact:** Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. Obtain medical attention.

**Skin Contact:** Wash off immediately with plenty of water for at least 15 minutes. Get medical attention if symptoms occur.

**Inhalation:** Move to fresh air. If breathing is difficult, give oxygen. Get medical attention if symptoms occur.

**Ingestion:** Do not induce vomiting. Obtain medical attention

**Most important symptoms/effects:** No information available.

**Notes to Physician:** Treat symptomatically.

**SECTION 5: FIRE FIGHTING MEASURES**

**Suitable Extinguishing Media:** Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

**Unsuitable Extinguishing Media:** No information available

**Flash Point:** 196 °C / 384.8 °F

**Method** - No information available

**Autoignition Temperature:** 420 °C / 788 °F

**Explosion Limits**

**Upper** No data available

**Lower** No data available

**Sensitivity to Mechanical Impact:** No information available

**Sensitivity to Static Discharge:** No information available

**Specific Hazards Arising from the Chemical:**

Thermal decomposition can lead to release of irritating gases and vapors. Keep product and empty container away from heat and sources of ignition.

**Hazardous Combustion Products:** Carbon monoxide (CO) Carbon dioxide (CO<sub>2</sub>)

**Protective Equipment and Precautions for Firefighters:** As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

**NFPA Rating:** Health: 2; Flammability: 1; Instability: 0; Physical Hazards: N/A

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**Personal Precautions:** Use personal protective equipment. Ensure adequate ventilation. Avoid dust formation. Avoid contact with skin, eyes and clothing.

**Environmental Precautions:** Avoid release to the environment. See Section 12 for additional ecological information

**Methods for Containment and Clean Up:** Sweep up or vacuum up spillage and collect in suitable container for disposal. Avoid dust formation.

**SECTION 7: HANDLING AND STORAGE**

**Handling:** Wear personal protective equipment. Ensure adequate ventilation. Do not get in eyes, on skin, or on clothing. Avoid ingestion and inhalation. Avoid dust formation.

**Storage:** Keep containers tightly closed in a dry, cool and well-ventilated place.

**SECTION 8: EXPOSURE CONTROL / PERSONAL PROTECTION****Exposure Guidelines:**

Component	ACGIH TLV	OSHA PEL	NIOSH IDLH
Adipic acid	TWA: 5 mg/m <sup>3</sup>	-	-

Component	Quebec	Mexico OEL (TWA)	Ontario TWAEV
Adipic acid	TWA: 5 mg/m <sup>3</sup>	-	TWA: 5 mg/m <sup>3</sup>

**Engineering Measures:** Ensure that eyewash stations and safety showers are close to the workstation location. Ensure adequate ventilation, especially in confined areas.

**Personal Protective Equipment :**

**Eye/face Protection:** Wear appropriate protective eyeglasses or chemical safety goggles as described by OSHA's eye and face protection regulations in 29 CFR 1910.133 or European Standard EN166.

**Skin and body protection:** Wear appropriate protective gloves and clothing to prevent skin exposure.

**Respiratory Protection:** Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced.

**Hygiene Measures:** Handle in accordance with good industrial hygiene and safety practice

**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES**

Physical State	Solid
Appearance	White
Odor	Odorless
Odor Threshold	No information available
pH	3.2 (0.1 % Solution)
Melting Point/Range	151 - 153 °C / 303.8 - 307.4 °F
Boiling point/Range	265 °C / 509 °F @ 100 mmHg
Flash Point	196 °C / 384.8 °F
Evaporation Rate	Negligible
Flammability (Solid, gas)	No information available
Flammability or explosive limits	
Upper	No data available
Lower	No data available
Vapor Pressure	>1 mbar @ 20 deg C
Vapor Density	5.04 (Air = 1.0)
Relative Density	No information available
Solubility	Insoluble in water
Partition coefficient; n-octanol/water	No data available
Autoignition Temperature	420 °C / 788 °F
Decomposition Temperature	315 °C
Viscosity	No information available
Molecular Formula	C6 H10 O4
Molecular Weight	146.14

**SECTION 10: STABILITY AND REACTIVITY**

**Reactive Hazard:** None known, based on information available

**Stability:** Stable under normal conditions.

**Conditions to Avoid:** Incompatible products. Excess heat. Avoid dust formation.

**Incompatible Materials:** Strong oxidizing agents

**Hazardous Decomposition Products:** Carbon monoxide (CO), Carbon dioxide (CO<sub>2</sub>)

**Hazardous Polymerization:** Hazardous polymerization does not occur

**Hazardous Reactions:** None under normal processing.

**Section 11: TOXICOLOGICAL INFORMATION****Acute Toxicity**

**Product Information:** No acute toxicity information is available for this product

**Component information**

**Toxicologically Synergistic Products:** No information available.

**Delayed and immediate effects as well as chronic effects from short and long-term exposure**

**Irritation:** Irritating to eyes and respiratory system.

**Sensitization:** No information available.

**Carcinogenicity:** The table below indicates whether each agency has listed any ingredient as a carcinogen

Component	CAS No	IARC	NTP	ACGIH	OSHA	Mexico
Adipic Acid	124-04-9	Not Listed	Not Listed	Not Listed	Not Listed	Not Listed

**Mutagenic Effects:** Not mutagenic in AMES Test.

**Reproductive Effects:** No information available.

**Developmental Effects:** No information available

**Teratogenicity:** No information available.

**STOT - single exposure** Respiratory system

**STOT - repeated exposure** None known.

**Aspiration hazard:** No information available.

**Symptoms / effects, both acute and delayed:** No information available.

**Endocrine Disruptor Information:** No information available

**Other Adverse Effects:** See actual entry in RTECS for complete information.

## Section 12: ECOLOGICAL INFORMATION

### Ecotoxicity

Component	Freshwater Algae	Freshwater Fish	Microtox	Water Flea
Adipic Acid	EC50= 31.3 mg/L 72h EC50 = 26.6 mg/L 96h	Leuciscus idus: LC50 = 230 mg/L 96h	EC50 = 91.9 mg/L 17 h	EC50 = 85.7 mg/L 48h

**Persistence and Degradability:** No information available

**Bioaccumulation/ Accumulation:** No information available

**Mobility:** Will likely be mobile in the environment due to its water solubility.

Component	<u>Log Pow</u>
Adipic Acid	0.081

## Section 13: DISPOSAL CONSIDERATION

**Waste Disposal Methods:** Chemical waste generators must determine whether a discarded chemical is classified as a hazardous waste. Chemical waste generators must also consult local, regional, and national hazardous waste regulations to ensure complete and accurate classification.

**SECTION 14: TRANSPORT INFORMATION**

DOT: Not Regulated

TDG: Not Regulated

IATA: Not Regulated

IMDG/IMO: Not Regulated

**15: OTHER REGULATORY INFORMATION**

Component	TSCA	DSL	NDSL	EINECS	ELINCS	NLP	PICCS	ENCS	AICS	IECSC	KECL
Adipic Acid	X	X	-	204-673-3	-		X	X	X	X	X

**Legend:**

X - Listed

E - Indicates a substance that is the subject of a Section 5(e) Consent order under TSCA.

F - Indicates a substance that is the subject of a Section 5(f) Rule under TSCA.

N - Indicates a polymeric substance containing no free-radical initiator in its inventory name but is considered to cover the designated polymer made with any free-radical initiator regardless of the amount used.

P - Indicates a commenced PMN substance

R - Indicates a substance that is the subject of a Section 6 risk management rule under TSCA.

S - Indicates a substance that is identified in a proposed or final Significant New Use Rule

T - Indicates a substance that is the subject of a Section 4 test rule under TSCA.

XU - Indicates a substance exempt from reporting under the Inventory Update Rule, i.e. Partial Updating of the TSCA Inventory Data Base Production and Site Reports (40 CFR 710(B)).

Y1 - Indicates an exempt polymer that has a number-average molecular weight of 1,000 or greater.

Y2 - Indicates an exempt polymer that is a polyester and is made only from reactants included in a specified list of low concern reactants that comprises one of the eligibility criteria for the exemption rule.

**U.S. Federal Regulations:****TSCA 12(b):** Not applicable**SARA 313:** Not applicable**SARA 311/312 Hazardous Categorization**

Acute Health Hazard Yes

Chronic Health Hazard No

Fire Hazard No

Sudden Release of Pressure Hazard No

Reactive Hazard No

**Clean Water Act:**

Component	CWA - Hazardous Substances	CWA - Reportable Quantities	CWA - Toxic Pollutants	CWA - Priority Pollutants
Adipic Acid	X	5000 lb	-	-

**Clean Air Act:** Not applicable**OSHA:** Occupational Safety and Health Administration Not applicable

**CERCLA**

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

Component	Hazardous Substances RQs	CERCLA EHS RQs
Adipic Acid	5000 lb	-

**California Proposition 65:** This product does not contain any Proposition 65 chemicals.

**State Right-to-Know:**

Component	Massachusetts	New Jersey	Pennsylvania	Illinois	Rhode Island
Adipic Acid	X	X	X	-	X

**U.S. Department of Transportation:**

Reportable Quantity (RQ): Y

DOT Marine Pollutant: N

DOT Severe Marine Pollutant: N

**U.S. Department of Homeland Security:**

This product does not contain any DHS chemicals

**Other International Regulations:**

**Mexico – Grade:** Slight risk, Grade 1

**Canada**

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.

**WHMIS Hazard Class:** D2B Toxic materials

**SECTION 16: ADDITIONAL INFORMATION**

This information is provided for documentation purposes only.

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