

Safety Data Sheet
According to Regulation (EC) No 1907/2006, Annex II,
Amended by Regulation (EU) No 453/2010,
According to Regulation (EC) No 1272/2008

Adipic Acid

Printing date: 20/01/2023

SDS Record Number: CSSS-TCO-010-114752
Version 1.1 Revision date: 20/01/2023

Section 1 Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier:

Identification on the label/Trade name: Adipic Acid
Additional identification: Not available
Identification of the product: CAS# 124-04-9; EC# 204-673-3
Index Number: 607-144-00-9
REACH registration No.: 01-2119457561-38-0038

1.2 Relevant identified uses of the substance and uses advised against:

1.2.1 Identified uses:

Use of adipic acid as intermediate or monomer

1.2.2 Uses advised against:

Not available.

1.3 Details of the supplier of the safety data sheet:

Supplier(Only representative): Chemical Inspection & Regulation Service Limited
Supplier(Manufacturer): CHONGQING HUAFON CHEMICAL CO.,LTD.
Address: No.66, Wuling Road, Baitao Chemical Industry Park, Fuling District, Chongqing, China
Contact person(E-mail): yang.jianxin@huafeng.com
Telephone: +86-15978993492
Fax:

1.4 Emergency telephone Number:

+353 41 980 6916 Only available during office hours (8:30a.m.-17:30p.m.)

Available outside office hours? YES NO

Section 2 Hazards Identification

2.1 Classification of the substance

2.1.1 Classification:

The substance is classified as following according to REGULATION (EC) No 1272/2008:

REGULATION (EC) No 1272/2008	
Hazard classes/Hazard categories	Hazard statement codes
Eye Irrit. 2	H319

For full text of H- phrases: see section 2.2.

2.2 label elements

Hazard Pictograms:



Signal Word(S): Warning
Hazard Statement: H319: Causes serious eye irritation

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Precautionary Statement: P264: Wash hands thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 + P313: If eye irritation persists: Get medical advice/attention.

2.3 Other hazards

Not available (PBT,vPvB, Substance is an endocrine disruptor etc.)

Section 3 Composition/information on ingredients

Substance/Mixture: Substance

Ingredient(s):

Chemical Name	Registration No.	CAS No.	EC No.	Concentration
Adipic acid	-	124-04-9	204-673-3	≥99.8%

Section 4 First aid measures

4.1 Description of first aid measures:

In all cases of doubt, or when symptoms persist, seek medical attention.

4.1.1 In case of inhalation:

Move the person away from the contaminated area. Obtain medical attention.

4.1.2 In case of skin contact:

Wash immediately and thoroughly for a prolonged period (at least 15 minutes). Remove all contaminated clothing and footwear.

4.1.3 In case of eyes contact:

Immediately rinse with plenty of running water for a prolonged period, (at least 15 minutes) whilst keeping the eyes wide open

4.1.4 In case of ingestion:

NEVER attempt to induce vomiting. Do not give anything to drink. Always obtain medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye irritation

4.3 Indication of any immediate medical attention and special treatment needed

If skin irritation or rash occurs, get medical advice/attention.

Section 5 Fire-Fighting measures

5.1 Extinguishing media:

Suitable extinguishing media: Foam, Powders, Water spray

Unsuitable extinguishing media: Not available

5.2 Special hazards arising from the substance or mixture

Combustible

5.3 Advice for fire-fighters:

Boots, gloves, goggles.

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Section 6 Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures:

6.1.1 For non-emergency personnel:

Avoid contact with skin and eyes. NO flames, NO sparks. Eliminate all sources of ignition.

6.1.2 For emergency responders:

- appropriate gloves. - safety glasses. - water-proof boots.

6.2 Environmental Precautions:

Prevent the product from spreading into the environment.

6.3 Methods for Containment and Cleaning up:

-Recovery: Collect up the product and place it in a spare container suitably labelled. Then take the emergency containers to an area reserved for subsequent recycling or disposal.

- Cleaning/Decontamination: Sweep.

- Disposal: Dispose of solid materials at an authorized site.

6.4 Reference to other sections:

See Section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See Section 13 for information on disposal.

6.5 Additional information:

Not applicable.

Section 7 Handling and storage

7.1 Precautions for safe handling:

7.1.1 Protective measures:

Technical measures: Dust extraction (suction). Earth the equipment. Inert atmosphere for pneumatic apparatus.

Measures: Avoid the formation of dust.

Safe handling advice : Ensure that there is a suitable ventilation system Handle and use in accordance with good occupational hygiene and safety

7.1.2 Advice on general occupational hygiene:

Do not eat, drink and smoke in work areas. Wash hands after use. Remove contaminated clothing and protective equipment before entering eating areas.

7.2 Conditions for safe storage, including any incompatibilities:

Technical measures : Storage tanks must be earthed and equipped with an adequate safety valve.

Storage conditions

- recommended: Store: - protected from humidity and bad weather conditions. - in a well-ventilated area - away from any source of heat. - away from any source of ignition. - away from incompatible materials.

Incompatible products: Oxidizing materials.

Packaging: - Flexible Intermediate Bulk Container (FIBC) . type B . Type C - Paper bags. Bulk product : consult the supplier.

Packaging materials

- recommended: Paper. Polyethylene. Polypropylene Stainless steel.

- not suitable: Steel. Aluminium and its alloys.

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Adipic Acid

SDS Record Number: CSSS-TCO-010-114752
Version 1.1 Revision date: 20/01/2023

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7.3 Specific end use(s):

Not applicable.

Section 8 Exposure control/personal protection

8.1 Control parameters:

8.1.1 Occupational exposure limits:

Belgium	Denmark	Spain	Finland
Valeur limite: 5 mg/m ³ 15min	Grænseværdier for luftforurening: 5 mg/m ³ (15 min)	TWA / VLA-ED: 5 mg/m ³ (8 horas)	HTP-arvot: 5 mg/m ³ 8 h
Ireland			
Occupational Exposure Limit Value: 5mg/m ³ 8 h			

8.1.2 Additional exposure limits under the conditions of use: Not available.

8.1.3 DNEL/DMEL and PNEC-Values: Not available.

8.2 Exposure controls

8.2.1 Appropriate engineering controls:

Ensure good ventilation of the work station.

8.2.2 Individual protection measures, such as personal protective equipment:

Eye/face protection	Safety spectacles.
Hand protection	Impermeable protective gloves.
Body protection	Protective clothing. Impermeable boots.
Respiratory protection	Respiratory protective device with a particle filter.
Thermal hazards	Wear suitable protective clothing to prevent heat.

8.2.3 Environmental exposure controls:

Avoid discharge into the environment.
According to local regulations, Federal and official regulations.

Section 9 Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance:	Solid, crystalline
Colour:	Colorless or White
Odour:	Odorless
Odour threshold:	Not available
pH:	The pH of a saturated solution of adipic acid is 2.7 and of a 0.1% solution is 3.2
Melting point/range (°C):	150.85°C
Boiling point/range (°C) :	337.5 °C
Flash point (°C) :	196°C
Evaporation rate:	Not applicable
Flammability (solid, gas):	Not flammable
Ignition temperature (°C) :	Not available

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Adipic Acid

SDS Record Number: CSSS-TCO-010-114752
Version 1.1 Revision date: 20/01/2023

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Upper/lower flammability/explosive limits:	Not available
Vapour pressure:	0.097 hPa at 18.5°C.
Vapour density:	Not applicable
Relative Density:	1.36 at 25°C
Bulk density (kg/m ³) :	Not available
Water solubility (g/l) :	23 g/l at 25°C
n-Octanol/Water (log Po/w) :	0.093
Auto-ignition temperature:	>400°C
Decomposition temperature:	Not applicable
Viscosity, dynamic (mPa s) :	Not applicable
Explosive properties:	Non explosive
Oxidising properties:	Non-oxidising
Molecular Formula:	C6H10O4
Molecular Weight:	146.14

9.2. Other information:

Fat solubility(solvent– oil to be specified) etc:	very soluble in methanol and ethanol; soluble in acetone and ethyl acetate and very slightly soluble in cyclohexane and benzene
Surface tension:	Not available
Dissociation constant in water(pKa):	pK1= 4.43 and pK2= 5.42 at 20 °C
Oxidation-reduction Potential:	Not available

Section 10 Stability and reactivity

10.1 Reactivity:

The substance is stable under normal storage and handling conditions.

10.2 Chemical stability:

Stable under normal shipping and handling conditions. Dusts may form an explosion hazard.

10.3 Possibility of hazardous reactions:

Fire may produce irritating, corrosive and/or toxic gases.

10.4 Conditions to avoid:

Strong oxidizing agents. Fairly strong acid. Reacts with bases.

10.5 Incompatible materials:

Strong oxidizers. Corrosive to mild steel at room temperature.

10.6 Hazardous decomposition products:

Carbon monoxide, carbon dioxide, acrid smoke and fumes.

Section 11 Toxicological information

11.1 Toxicokinetics, metabolism and distribution

Non-human toxicological data: Not available

11.2 Information on toxicological effects

Safety Data Sheet
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Version 1.1 Revision date: 20/01/2023

Acute toxicity:

LD50(Oral, Rat):	5560 mg/kg bw
LD50(Dermal, Rat):	Not available
LC50(Inhalation, Rat):	Not available

Skin corrosion/irritation: Not classified

Serious eye damage/irritation: Causes serious eye irritation

Respiratory or skin sensitization Not classified

Germ cell mutagenicity: Not classified

Carcinogenicity: Not classified

Reproductive toxicity: Not classified

STOT- single exposure: Not classified

STOT-repeated exposure: Not classified

Aspiration hazard: Not classified

Section 12 Ecological information

Toxicity:

Acute toxicity		Time	Species	Method	Evaluation	Remarks
LC50	N/A	96h	Fish	OECD 203	N/A	N/A
LC50	46 mg/L	48h	Daphnia	OECD 202	N/A	N/A
EC50	N/A	72h	Algae	OECD 201	N/A	N/A

Persistence and degradability: inherently biodegradable in water. readily biodegradable in soil.

Bioaccumulative potential: Not available.

Mobility in soil: Not available.

Results of PBT&vPvB assessment: The substance is not PBT / vPvB

Other adverse effects: Not available.

Section 13 Disposal considerations

13.1 Waste treatment methods

RESIDUES FROM PRODUCT

Prohibition: Discharging waste into rivers and drains is forbidden.

Destruction/Disposal: Incinerate at a licensed installation.

13.2 Product / Packaging disposal:

CONTAMINATED PACKAGING

Prohibition: Do not dispose of the product at a rubbish tip.

Decontamination/cleaning: Wash out general purpose tankers (rail-road) with water. Recover the cleaning water and dispose of at a specialist site.

Destruction/Disposal: Incinerate bags and flexible containers.

NOTE: The user's attention is drawn to the possible existence of local regulations regarding disposal.

Safety Data Sheet
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Adipic Acid

SDS Record Number: C555-TCO-010-114752
 Version 1.1 Revision date: 20/01/2023

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If empty container retains product residues, all label precautions must be observed. Return for reuse or dispose according to national or local regulations.

Section 14 Transport information (IMDG/IMO: Not Regulated)

	<i>Land transport (ADR/RID)</i>	<i>Sea transport (IMDG)</i>	<i>Air transport (ICAO/IATA)</i>
UN-Number:	Not regulated	Not regulated	Not regulated
UN Proper shipping name:	Not regulated	Not regulated	Not regulated
Transport hazard Class:	Not regulated	Not regulated	Not regulated
Packaging group:	Not regulated	Not regulated	Not regulated
Environmental hazards:	Not regulated	Not regulated	Not regulated
Special precautions for user:	See section 2.2	See section 2.2	See section 2.2
Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code	Not regulated	Not regulated	Not regulated

Section 15 Regulation information

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Relevant information regarding authorization:

Not applicable.

Relevant information regarding restriction:

Not applicable.

Other EU regulations:

Employment restrictions concerning young person must be observed. For use only by technically qualified individuals.

Other National regulations:

Not applicable

Chemical Safety Assessment has been carried out?

YES

NO

Section 16 Other information

16.1 Indication of changes

Version 1.1 Amended by EU No 453/2010

16.2 Training instructions:

Not applicable.

16.3 Further information:

This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

16.4 Notice to reader:

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgment of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.