

Material Safety Data Sheet

**According to Regulation (EU) No. 1907/2006 (REACH), Annex II
(COMMISSION REGULATION (EU) No 453/2010)**

Version: 1.0/EN
Product name: Adipic acid

Prepared date: 09/08/2013
Revision date: 09/08/2013

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

1.1 Product identifier

Product name: Adipic acid
REACH Reg. No.: 01-2119457561-38-0034
CAS No.: 124-04-9

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

Identified uses: Nylon 66 , Adhesive , Painting , PU , Resin
Uses advised against: No information available.

1.3 Details of the supplier of the SDS

Only Representative: REACH24H CONSULTING GROUP
Address: Suite 1E, Paramount Court, Corrig Road, Sandyford, Dublin 18, Ireland
E-mail: Info@reach24h.com

Manufacturer: Shandong Ji An Chemical Co., LTD
Address: Middle of north-cycle road, Dongming county, Heze city, Shandong province, China
Postcode: 274500
E-mail: Wenbo513@163.com
Telephone: 0530-7261088
Fax: 0530-7262777

1.4 Emergency telephone number

0530-7261088

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008[CLP]
Serious eye damage/eye irritation, Category 1; H318

Classification according to Directive 67/548/EEC[DSD] or Directive 1999/45/EC[DPD]
Xi; R41

Additional information

Full text of R-phrases(s)/H-statement(s): see SECTION 16.

2.2 Label elements

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Labelling according to Regulation (EC) No 1272/2008[CLP]

Hazard pictogram(s):



Signal word: Danger

Hazard statement(s): H318: Causes serious eye damage.

Precautionary statement(s):
Prevention P280: Wear protective gloves/protective clothing/eye protection/face protection.

Response: P305+P351+P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P310: Immediately call a POISON Center or doctor/physician.

Supplemental Hazard information (EUH):

No information available.

Special rules for supplemental label elements for certain mixtures:

No information available.

2.3 Other hazards

No information available.

SECTION 3: Composition/information on ingredients

3.1 Substance/Preparation information

Substance name: Adipic acid
Index No.: 607-144-00-9
CAS No.: 124-04-9
EC No.: 204-673-3
Purity: >99.7%

SECTION 4: First aid measures

4.1 Description of first aid measures

General notes:

Take off all contaminated clothing immediately.

Following inhalation:

Move exposed person to fresh air. Keep person warm and at rest. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It

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may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention if adverse health effects persist or are severe. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Following skin contact:

Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur. Wash clothing before reuse. Clean shoes thoroughly before reuse.

Following eye contact:

Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention.

Following ingestion:

Wash out mouth with water. Move exposed person to fresh air. Keep person warm and at rest. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

4.2 Most important symptoms and effects, both acute and delayed

Causes serious eye damage.

4.3 Indication of the immediate medical attention and special treatment needed

No information available.

SECTION 5: Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media: Water sprays (fog), foam, dry chemical or CO₂.

Unsuitable extinguishing media: None known.

5.2 Special hazards arising from the substance or mixture

No specific fire or explosion hazard.

Decomposition products may include the following materials: carbon oxides.

5.3 Advice for fire-fighters

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Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

No action shall be taken involving any personal risk or without suitable training. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Avoid breathing dust. Provide adequate ventilation. Put on appropriate personal protective equipment (see section 8).

6.2 Environmental precautions

Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

6.3 Methods and material for containment and cleaning up

Large spill: Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Vacuum or sweep up material and place in a designated, labeled waste container. Avoid creating dusty conditions and prevent wind dispersal. Dispose of via a licensed waste disposal contractor.

Small spill: Move containers from spill area. Vacuum or sweep up material and place in a designated, labeled waste container. Dispose of via a licensed waste disposal contractor.

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.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Put on appropriate personal protective equipment. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Do not breathe dust. Do not ingest. Avoid contact with eyes, skin and clothing. Keep in the original container or an approved alternative made from a compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous.

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7.2 Conditions for safe storage, including any incompatibilities

Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well ventilated area, away from incompatible materials (see section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

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

Occupational exposure limit values:

Belgium: TWA 5mg/m³

Denmark: TWA 5mg/m³; STEL 10 mg/m³

Poland: TWA 5mg/m³; STEL 10 mg/m³

Spain: TWA 5mg/m³

DNEL (Derived No Effect Level) for workers and the general population:

	Route	Type of effect	DNEL
For the worker	Inhalation	Systemic effects – Long-term	264 mg/m ³
	Inhalation	Systemic effects – Acute	264 mg/m ³
	Inhalation	Local effects – Long-term	5 mg/m ³
	Inhalation	Systemic effects – Acute	5 mg/m ³
	Dermal	Systemic effects – Long-term	38 mg/kg bw/day
For the general population	Inhalation	Systemic effects – Long-term	65 mg/m ³
	Inhalation	Systemic effects – Acute	65 mg/m ³
	Dermal	Systemic effects – Long-term	19 mg/kg bw/day
	Dermal	Systemic effects – Acute	19 mg/kg bw/day
	Oral	Systemic effects – Long-term	19 mg/kg bw/day
	Oral	Systemic effects – Acute	19 mg/kg bw/day

PNEC (Predicted No Effect Concentration) values:

Compartment	PNEC
Water	Freshwater: 0.126 mg/L Marine water: 0.0126 mg/L Intermittent releases: 0.46 mg/L
Sediment	Freshwater: 0.484 mg/kg sediment dw Marine water: 0.0484 mg/kg sediment dw
STP	59.1 mg/L
Soil	0.0228 mg/kg soil dw

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8.2 Exposure controls

Appropriate engineering controls:

Use with adequate ventilation if required.

Ensure that eyewash stations and safety showers are close to the workstation location.

Personal protective equipment:

Eye and face protection: Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If operating conditions cause high dust concentrations to be produced, use dust goggles. Recommended: safety glasses with side-shields.

Skin protection: Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations <1 hours (breakthrough time): Polychloroprene – CR, nitrile rubber, butyl rubber, Fluorinated rubber – FKM. Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.

Respiratory protection: Use a properly fitted, air-purifying or air-fed respirator complying with an approved standard if a risk assessment indicates this is necessary. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Recommended: In case of dust formation particle filter P2.

Environmental exposure controls:

Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: White crystalline solid

Odour: Not available.

pH: Not available.

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Melting point:	150.85 °C at 101.3 kPa
Boiling point:	337.5 °C at 101.3 kPa
Flash point:	Not applicable.
Evaporation rate:	Not available.
Flammability (solid, gas):	Non flammable
Upper/lower flammability or explosive limits:	Not available.
Vapour pressure:	0.097 hPa at 18.5°C
Relative density:	1.36 at 20°C
Water solubility:	23000 mg/L at 25 °C
Partition coefficient: n-octanol/water:	Log Kow: 0.09 at 20 °C
Auto-ignition temperature:	>400°C
Decomposition temperature:	Not available.
Viscosity:	Not applicable.
Explosive properties:	Non explosive
Oxidising properties:	No oxidising properties

9.2 Other information

No data available.

SECTION 10: Stability and reactivity

10.1 Reactivity

No information available.

10.2 Chemical stability

The product is stable.

10.3 Possibility of hazardous reactions

Under normal conditions of storage and use, hazardous reactions will not occur.

Decomposition temperature : 230°C

10.4 Conditions to avoid

High temperature.

10.5 Incompatible materials

Strong bases.

10.6 Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

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12.5 Results of PBT and vPvB assessment

The substance is not a PBT and vPvB substance.

12.6 Other adverse effects

No information available.

SECTION 13: Disposal considerations

13.1 Waste treatment methods

Examine possibilities for re-utilisation. Product residues and un-cleaned empty containers should be packaged, sealed, labelled, and disposed of or recycled according to relevant national and local regulations. Where large quantities are concerned, consult the supplier. When un-cleaned empty containers are passed on, the recipient must be warned of any possible hazard that may be caused by residues.

SECTION 14: Transport information

14.1 UN Number Not regulated as dangerous goods

14.2 UN proper shipping name Not regulated as dangerous goods

14.3 Transport hazard class(es) Not regulated as dangerous goods

14.4 Packing group Not regulated as dangerous goods

14.5 Environmental hazards Not regulated as marine pollutant

14.6 Special precautions for user No information available.

14.7 Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code No information available.

SECTION 15: Regulatory information

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

EU regulation:

Authorisations: Not applicable.

Restrictions on use: Not applicable.

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EINECS: Listed

Other chemical regulation:

CAS No.	USA TSCA	Canada DSL	Australia AICS	Korea ECL	Japan ENCS	China IECSC
124-04-9	Listed	Listed	Listed	Listed	Listed	Listed
Remark: The above-mentioned search results are based on the Non-Confidential Inventory.						

15.2 Chemical Safety Assessment

Chemical Safety Assessment has been carried out for this product.

SECTION 16: Other information

16.1 Revision Information

Date of the previous revision: Not applicable. Date of this revision: 09/08/2013.
Revision summary: The first new SDS

16.2 Abbreviations and acronyms

CLP: EU regulation (EC) No 1272/2008 on classification, labelling and packaging of chemical substances and mixtures.
CAS: Chemical Abstracts Service (division of the American Chemical Society).
EINECS: European Inventory of Existing Commercial Chemical Substances.
DSD: Dangerous Substance Directive (67/548/EEC).
TSCA: Toxic Substances Control Act, The American chemical inventory.
DSL: Domestic Substances List, The Canadian chemical inventory.
AICS: The Australian Inventory of Chemical Substances.
ECL: Existing Chemicals List, the Korean chemical inventory.
ENCS: Japanese Existing and New Chemical Substances.
IECSC: Inventory of existing chemical substances in China.

16.3 Key literature references and sources for data

ECHA's public database with information on registered substances.
Chemical safety report of adipic acid.

16.4 Relevant R-phrases/H-statements

R41: Risk of serious damage to eyes.

16.5 Training advice

Provide adequate information, instruction and training for operators.

16.6 Declare to reader

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The information in this SDS is provided all the relevant data fully and truly. However, the information is provided without any warranty on their absolute extensiveness and accuracy. This SDS was prepared to provide safety preventive measures for the users who have got professional training. The personal user who obtained this SDS should make independent judgment for the applicability of this SDS under special conditions. In these special cases, we do not assume responsibility for the damage. According to REACH Article 31(5), the SDS shall be supplied in an official language of the Member State(s) where the substance or mixture is placed on the market, unless the recipient Member State(s) concerned provide otherwise. It should also be noted that this SDS is applicable to the countries with English as an official language.

----- End of the SDS
