

Safety Data Sheet

ADIPIC ACID TECH GRADE

Version 1.4

Revision Date: 11/11/2023

SECTION 1. PRODUCT AND COMPANY IDENTIFICATION

Product name : ADIPIC ACID TECH GRADE

Recommended use of the chemical and restrictions on use

Recommended use : Industrial chemical

Manufacturer or supplier's details

Company : Univar Solutions USA
Address : 3075 Highland Pkwy Suite 200
 Downers Grove, IL 60515
 United States of America (USA)

Emergency telephone number:

Transport North America: CHEMTREC (1-800-424-9300)

CHEMTREC INTERNATIONAL Tel # 703-527-3887

Additional Information: : Responsible Party: Product Compliance Department
 E-mail: SDSNA@univarsolutions.com
 SDS Requests: 1-855-429-2661
 Website: www.univarsolutions.com

SECTION 2. HAZARDS IDENTIFICATION

GHS Classification

Serious eye damage : Category 1

GHS label elements

Hazard pictograms :



Signal word : Danger

Hazard statements : H318 Causes serious eye damage.

Precautionary statements : **Prevention:**
 P280 Wear eye protection/ face protection.
Response:
 P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Substance

Hazardous components

CAS-No.	Chemical name	Weight percent
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124-04-9	Adipic acid	90 - 100
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Any Concentration shown as a range is due to batch variation.

Synonyms : Hexanedioic acid,

SECTION 4. FIRST AID MEASURES

- General advice : Show this safety data sheet to the doctor in attendance.
- If inhaled : If unconscious, place in recovery position and seek medical advice.
If symptoms persist, call a physician.
- In case of skin contact : Wash off immediately with plenty of water.
- In case of eye contact : Immediately flush eye(s) with plenty of water.
Keep eye wide open while rinsing.
If eye irritation persists, consult a specialist.
Take victim immediately to hospital.
- If swallowed : Keep respiratory tract clear.
Do not induce vomiting without medical advice.
Never give anything by mouth to an unconscious person.
If symptoms persist, call a physician.

SECTION 5. FIREFIGHTING MEASURES

- Suitable extinguishing media : Use an extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : High volume water jet
- Specific hazards during fire-fighting : Do not allow run-off from fire fighting to enter drains or water courses.
- Hazardous combustion products : Carbon oxides
- Specific extinguishing methods : Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
- Further information : Fire residues and contaminated fire extinguishing water must be disposed of in accordance with local regulations.
- Special protective equipment for firefighters : Wear self-contained breathing apparatus for firefighting if necessary.

SECTION 6. ACCIDENTAL RELEASE MEASURES

- Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.
Avoid dust formation.
Avoid breathing dust.
- Environmental precautions : Prevent product from entering drains.
Prevent further leakage or spillage if safe to do so.
If the product contaminates rivers and lakes or drains inform respective authorities.
- Methods and materials for containment and cleaning up : Neutralize with chalk, alkali solution or ammonia.
Keep in suitable, closed containers for disposal.

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SECTION 7. HANDLING AND STORAGE

- Advice on protection against fire and explosion : Avoid dust formation. Provide appropriate exhaust ventilation at places where dust is formed.
- Advice on safe handling : Avoid formation of respirable particles.
Do not breathe vapours/dust.
Avoid contact with skin and eyes.
For personal protection see section 8.
Smoking, eating and drinking should be prohibited in the application area.
Dispose of rinse water in accordance with local and national regulations.
- Conditions for safe storage : Keep container tightly closed in a dry and well-ventilated place.
Containers which are opened must be carefully resealed and kept upright to prevent leakage.
Electrical installations / working materials must comply with the technological safety standards.
- Materials to avoid : Do not store near acids.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Components with workplace control parameters

CAS-No.	Components	Value type (Form of exposure)	Control parameters / Permissible concentration	Basis
124-04-9	Adipic acid	TWA	5 mg/m ³	ACGIH
		PEL	5 mg/m ³	CAL PEL

Personal protective equipment

- Respiratory protection : No personal respiratory protective equipment normally required.
In the case of vapour formation use a respirator with an approved filter.
- Hand protection
- Remarks : The suitability for a specific workplace should be discussed with the producers of the protective gloves.
- Eye protection : Eye wash bottle with pure water
Tightly fitting safety goggles
Wear face-shield and protective suit for abnormal processing problems.
- Skin and body protection : Dust impervious protective suit
Choose body protection according to the amount and concentration of the dangerous substance at the work place.
- Hygiene measures : When using do not eat or drink.
When using do not smoke.
Wash hands before breaks and at the end of workday.

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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	: solid, crystalline, powder
Colour	: colourless, white
Odour	: odourless
Odour Threshold	: No data available
pH	: 2.7 @ 2.3 %
Freezing Point (Melting point/freezing point)	: 150.85 - 152 °C (303.53 - 306 °F)
Boiling Point (Boiling point/boiling range)	: 337.5 - 338 °C (639.5 - 640 °F)
Flash point	: 196 °C (385 °F) Method: closed cup
Evaporation rate	: Not applicable
Flammability (solid, gas)	: No data available
Upper explosion limit	: No data available
Lower explosion limit	: No data available
Vapour pressure	: 0.0097 kPa
Relative vapour density	: 5.04
Relative density	: 1.36 @ 20 °C (68 °F) Reference substance: (water = 1)
Density	: No data available
Solubility(ies)	
Water solubility	: 19 g/l @ 20 °C (68 °F) 830 g/l @ 90 °C (194 °F)
Solubility in other solvents	: No data available
Partition coefficient: n-octanol/water	: log Pow: 0.09
Auto-ignition temperature	: > 400 °C
Thermal decomposition	: No data available

SECTION 10. STABILITY AND REACTIVITY

Reactivity	: Stable under recommended storage conditions.
Chemical stability	: Stable under normal conditions.
Possibility of hazardous reactions	: Dust may form explosive mixture in air. Stable under recommended storage conditions.
Conditions to avoid	: Keep away from heat, flame, sparks and other ignition sources.
Incompatible materials	: Avoid contact with: Alkalis oxidizers Amines Oxidizing agents
Hazardous decomposition	: carbon dioxide and carbon monoxide

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products

SECTION 11. TOXICOLOGICAL INFORMATION**Serious eye damage/eye irritation****Components:****124-04-9:**

Species: Rabbit

Result: Risk of serious damage to eyes.

Exposure time: 24 h

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.

OSHA

No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

NTP

No component of this product present at levels greater than or equal to 0.1% is identified as a known or anticipated carcinogen by NTP.

ACGIH

No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.

Aspiration toxicity**Product:**

No aspiration toxicity classification

Further information**Product:**

Remarks: No data available

SECTION 12. ECOLOGICAL INFORMATION**Ecotoxicity****Components:****124-04-9:**

Toxicity to daphnia and other aquatic invertebrates : EC50 (Daphnia magna (Water flea)): 85.7 mg/l
Exposure time: 48 h

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Toxicity to algae : EC50 (Pseudokirchneriella subcapitata (microalgae)): 59 mg/l
End point: Growth rate
Exposure time: 72 h
Test Type: static test

Acute aquatic toxicity- Assessment : Harmful to aquatic life.

Persistence and degradability

Product:

Biodegradability : Biodegradation: > 90 %
Exposure time: 5 d
Remarks: Readily biodegradable

Bioaccumulative potential

Product:

Bioaccumulation : Remarks: The substance has low potential for bioaccumulation.

Mobility in soil

No data available

Other adverse effects

Product:

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological information : An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.
Harmful to aquatic life.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal methods

Waste from residues : Dispose of in accordance with all applicable local, state and federal regulations.
For assistance with your waste management needs - including disposal, recycling and waste stream reduction, contact Univar Solutions ChemCare: 1-800-637-7922

Contaminated packaging : Empty remaining contents.
Dispose of as unused product.
Do not re-use empty containers.

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SECTION 14. TRANSPORT INFORMATION

DOT (Department of Transportation): Not regulated as a dangerous good

IATA (International Air Transport Association): Not regulated as a dangerous good

IMDG-Code: Not regulated as a dangerous good

SECTION 15. REGULATORY INFORMATION

WHMIS Classification : D2B: Toxic Material Causing Other Toxic Effects

EPCRA - Emergency Planning and Community Right-to-Know Act

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
Adipic acid	124-04-9	5000	5000

SARA 304 Extremely Hazardous Substances Reportable Quantity

This material does not contain any components with a section 304 EHS RQ.

SARA 311/312 Hazards : Acute Health Hazard

SARA 302 : No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

Clean Air Act

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

The following chemical(s) are listed under the U.S. Clean Air Act Section 111 SOCM I Intermediate or Final VOC's (40 CFR 60.489):

124-04-9 Adipic acid

Clean Water Act

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

124-04-9 Adipic acid

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

124-04-9 Adipic acid

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

US State Regulations

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Massachusetts Right To Know

124-04-9 Adipic acid 90 - 100 %

Pennsylvania Right To Know

124-04-9 Adipic acid 90 - 100 %

New Jersey Right To Know

124-04-9 Adipic acid 90 - 100 %

California Prop 65 : This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

The components of this product are reported in the following inventories:

TSCA : On TSCA Inventory

DSL : All components of this product are on the Canadian DSL

AICS : On the inventory, or in compliance with the inventory

NZIoC : On the inventory, or in compliance with the inventory

ENCS : On the inventory, or in compliance with the inventory

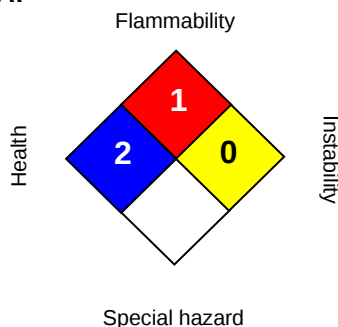
KECI : On the inventory, or in compliance with the inventory

PICCS : On the inventory, or in compliance with the inventory

IECSC : On the inventory, or in compliance with the inventory

SECTION 16. OTHER INFORMATION

NFPA:



HMIS III:

HEALTH	2
FLAMMABILITY	1
PHYSICAL HAZARD	0

0 = not significant, 1 = Slight,
2 = Moderate, 3 = High
4 = Extreme, * = Chronic

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information

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is current, applicable, and suitable to their circumstances. This SDS has been prepared by Univar Solutions Product Compliance Department (1-855-429-2661) SDSNA@univarsolutions.com.

Revision Date : 11/11/2023

Legacy SDS: : R0000013

Material number:

16104035, 16007484, 754788, 674886, 86727, 70344, 86394, 70190, 53916, 20018, 20017

Key or legend to abbreviations and acronyms used in the safety data sheet			
ACGIH	American Conference of Government Industrial Hygienists	LD50	Lethal Dose 50%
AICS	Australia, Inventory of Chemical Substances	LOAEL	Lowest Observed Adverse Effect Level
DSL	Canada, Domestic Substances List	NFPA	National Fire Protection Agency
NDSL	Canada, Non-Domestic Substances List	NIOSH	National Institute for Occupational Safety & Health
CNS	Central Nervous System	NTP	National Toxicology Program
CAS	Chemical Abstract Service	NZIoC	New Zealand Inventory of Chemicals
EC50	Effective Concentration	NOAEL	No Observable Adverse Effect Level
EC50	Effective Concentration 50%	NOEC	No Observed Effect Concentration
EGEST	EOSCA Generic Exposure Scenario Tool	OSHA	Occupational Safety & Health Administration
EOSCA	European Oilfield Specialty Chemicals Association	PEL	Permissible Exposure Limit
EINECS	European Inventory of Existing Chemical Substances	PICCS	Philippines Inventory of Commercial Chemical Substances
MAK	Germany Maximum Concentration Values	PRNT	Presumed Not Toxic
GHS	Globally Harmonized System	RCRA	Resource Conservation Recovery Act
>=	Greater Than or Equal To	STEL	Short-term Exposure Limit
IC50	Inhibition Concentration 50%	SARA	Superfund Amendments and Reauthorization Act.
IARC	International Agency for Research on Cancer	TLV	Threshold Limit Value
IECSC	Inventory of Existing Chemical Substances in China	TWA	Time Weighted Average
ENCS	Japan, Inventory of Existing and New Chemical Substances	TSCA	Toxic Substance Control Act
KECI	Korea, Existing Chemical Inventory	UVCB	Unknown or Variable Composition, Complex Reaction Products, and Biological Materials
<=	Less Than or Equal To	WHMIS	Workplace Hazardous Materials Information System
LC50	Lethal Concentration 50%		