

Version: 1.0

SAFETY DATA SHEETS

According to the UN GHS revision 8

Creation Date: July 15, 2019 Revision Date: July 15, 2019 1. Identification **GHS Product identifier** 1.1 Product name Adipic acid dihydrazide Other means of identification 1.2 Product number A10003 Other names 1.3 Recommended use of the chemical and restrictions on use Identified uses Intermediates, Paint additives and coating additives not described by other categories Uses advised against no data available 1.4 Supplier's details Tianjin Psaitong Biomedical Technology Co., Ltd Company Beijing Psaitong Biotechnology Co., Ltd Address Building 145, Yougu New Science Park, Qingguang Town, Beichen District, Tianjin City Tel/Fax +86-10-60605840 1.5 **Emergency phone number** Emergency phone number +86-10-60605840 Service hours Monday to Friday, 9am-5pm (Standard time zone: UTC/GMT +8 hours). Hazard identification 2. 2.1 Classification of the substance or mixture Hazardous to the aquatic environment, long-term (Chronic) - Category Chronic 2 2.2 GHS label elements, including precautionary statements Pictogram(s) Signal word No signal word Hazard statement(s) H411 Toxic to aquatic life with long lasting effects Precautionary statement(s) Prevention P273 Avoid release to the environment. Response P391 Collect spillage. Storage none Disposal P501 Dispose of contents/container to an appropriate treatment and disposal facility in accordance with applicable laws and regulations, and product characteristics at time of disposal.

2.3 Other hazards which do not result in classification

no data available

3. Composition/information on ingredients

3.1 Substances

Chemical name	Common names and synonyms	CAS number	EC number	Concentration
Adipohydrazide	Adipohydrazide	1071-93-8	213-999-5	100%

4. First-aid measures

4.1 Description of necessary first-aid measures

General advice

Medical attention is required. Consult a doctor. Show this safety data sheet (SDS) to the doctor in attendance.

lf inhaled

Move the victim into fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration and consult a doctor immediately. Do not use mouth to mouth resuscitation if the victim ingested or inhaled the chemical.

Following skin contact

Take off contaminated clothing immediately. Wash off with soap and plenty of water. Consult a doctor.

Following eye contact

Rinse with pure water for at least 15 minutes. Consult a doctor.

Following ingestion

Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Call a doctor or Poison Control Center immediately.

4.2 Most important symptoms/effects, acute and delayed

no data available

4.3 Indication of immediate medical attention and special treatment needed, if necessary

no data available

5. Fire-fighting measures

5.1 Extinguishing media

Suitable extinguishing media

Use dry chemical, carbon dioxide or alcohol-resistant foam.

5.2 Specific hazards arising from the chemical

no data available

5.3 Special protective actions for fire-fighters

Wear self-contained breathing apparatus for firefighting if necessary.

6. Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Avoid dust formation. Avoid breathing mist, gas or vapours. Avoid contacting with skin and eye. Use personal protective equipment. Wear chemical impermeable gloves. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas. Keep people away from and upwind of spill/leak.

6.2 Environmental precautions

Prevent further spillage or leakage if it is safe to do so. Do not let the chemical enter drains. Discharge into the environment must be avoided.

6.3 Methods and materials for containment and cleaning up

Collect and arrange disposal. Keep the chemical in suitable and closed containers for disposal. Remove all sources of ignition. Use spark-proof tools and explosion-proof equipment. Adhered or collected material should be promptly disposed of, in accordance with appropriate laws and regulations.

7. Handling and storage

7.1 Precautions for safe handling

Handling in a well ventilated place. Wear suitable protective clothing. Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Use non-sparking tools. Prevent fire caused by electrostatic discharge steam.

7.2 Conditions for safe storage, including any incompatibilities

Store the container tightly closed in a dry, cool and well-ventilated place. Store apart from foodstuff containers or incompatible materials.

8. Exposure controls/personal protection

8.1 Control parameters

Occupational Exposure limit values

no data available

8.2 Appropriate engineering controls

Ensure adequate ventilation. Handle in accordance with good industrial hygiene and safety practice. Set up emergency exits and the risk-elimination area.

8.3 Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Wear tightly fitting safety goggles with side-shields conforming to EN 166(EU) or NIOSH (US).

Skin protection

Wear fire/flame resistant and impervious clothing. Handle with gloves. Gloves must be inspected prior to use. Wash and dry hands. The selected protective gloves have to satisfy the specifications of EU Directive 89/686/EEC and the standard EN 374 derived from it.

Respiratory protection

If the exposure limits are exceeded, irritation or other symptoms are experienced, use a full-face respirator.

Thermal hazards

no data available

9. Physical and chemical properties

Physical state	Solid. Powder.
Colour	White.
Odour	no data available
Melting point/ freezing point	181 °C.
Boiling point or initial boiling point	t 425.97 °C. Remarks:No further data are available.
and boiling range	
Flammability	no data available
Lower and upper explosion limit /	no data available
flammability limit	
Flash point	> 150 °C.
Auto-ignition temperature	> 400 °C.
Decomposition temperature	no data available
рН	no data available
Kinematic viscosity	no data available

Solubility	In water: 102 g/L. Temperature:20 °C. pH:6.3.	
Partition coefficient n-	log Pow = -2.7. Temperature:20 °C.	
octanol/water		
Vapour pressure	0 Pa. Temperature:25 °C.	
Density and/or relative density	1.29. Temperature:20 °C.	
Relative vapour density	no data available	
Particle characteristics	no data available	

10. Stability and reactivity

10.1 Reactivity

no data available

10.2 Chemical stability

no data available

10.3 Possibility of hazardous reactions

no data available

10.4 Conditions to avoid

no data available

10.5 Incompatible materials

no data available

10.6 Hazardous decomposition products

no data available

11. Toxicological information

Acute toxicity

- Oral: LD50 rat (female) > 2 000 mg/kg bw.
- Inhalation: LC50 rat (male/female) > 5.3 mg/L air.
- Dermal: no data available

Skin corrosion/irritation

no data available

Serious eye damage/irritation

no data available

Respiratory or skin sensitization

no data available

Germ cell mutagenicity

no data available

Carcinogenicity

no data available

Reproductive toxicity

no data available

STOT-single exposure

no data available

STOT-repeated exposure

no data available

no data available

12. Ecological information

12.1 Toxicity

- Toxicity to fish: LC50 Cyprinus carpio > 100 mg/L 96 h.
- Toxicity to daphnia and other aquatic invertebrates: EC50 Daphnia magna >= 106 mg/L 48 h.
- Toxicity to algae: EC50 Pseudokirchneriella subcapitata (previous names: Raphidocelis subcapitata, Selenastrum capricornutum) 9.19 mg/L 72 h.
- Toxicity to microorganisms: EC50 activated sludge of a predominantly domestic sewage > 1 000 mg/L 3 h. Remarks:Respiration rate.

12.2 Persistence and degradability

no data available

12.3 Bioaccumulative potential

no data available

12.4 Mobility in soil

no data available

12.5 Other adverse effects

no data available

13. Disposal considerations

13.1 Disposal methods

Product

The material can be disposed of by removal to a licensed chemical destruction plant or by controlled incineration with flue gas scrubbing. Do not contaminate water, foodstuffs, feed or seed by storage or disposal. Do not discharge to sewer systems.

Contaminated packaging

Containers can be triply rinsed (or equivalent) and offered for recycling or reconditioning. Alternatively, the packaging can be punctured to make it unusable for other purposes and then be disposed of in a sanitary landfill. Controlled incineration with flue gas scrubbing is possible for combustible packaging materials.

14. Transport information

14.1 UN Number

	ADR/RID: no data available	IMDG: no data available	IATA: no data available
14.2	UN Proper Shipping Name		
	ADR/RID: no data available	IMDG: no data available	IATA: no data available
14.3	Transport hazard class(es)		
	ADR/RID: 9 (For reference only, please check.)	IMDG: 9 (For reference only, please check.)	IATA: 9 (For reference only, please check.)
14.4	Packing group, if applicable		
	ADR/RID: III (For reference only, please check.)	IMDG: III (For reference only, please check.)	IATA: III (For reference only, please check.)
14.5	Environmental hazards		
	ADR/RID: No	IMDG: No	IATA: No
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14.6 Special precautions for user

no data available

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

no data available

15. Regulatory information

15.1 Safety, health and environmental regulations specific for the product in question

Chemical name	Common names and synonyms	CAS number	EC number
Adipohydrazide	Adipohydrazide	1071-93-8	213-999-5
European Inventory of Existing Commercial Chemical Substances (EINECS)			Listed.
EC Inventory			Listed.
United States Toxic Substances Control Act (TSCA) Inventory			Listed.
China Catalog of Hazardous chemicals 2015		Not Listed.	
New Zealand Inventory of C	themicals (NZIoC)		Listed.
Philippines Inventory of Ch	emicals and Chemical Substances (PICCS)		Listed.
Vietnam National Chemical Inventory			Listed.
Chinese Chemical Inventory of Existing Chemical Substances (China IECSC)			Listed.
Korea Existing Chemicals L	ist (KECL)		Listed.

16. Other information

Information on revision

Creation Date	July 15, 2019
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Abbreviations and acronyms

- CAS: Chemical Abstracts Service
- ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
- RID: Regulation concerning the International Carriage of Dangerous Goods by Rail
- IMDG: International Maritime Dangerous Goods
- IATA: International Air Transportation Association
- TWA: Time Weighted Average
- STEL: Short term exposure limit
- LC50: Lethal Concentration 50%
- LD50: Lethal Dose 50%
- EC50: Effective Concentration 50%

References

- IPCS The International Chemical Safety Cards (ICSC), website: http://www.ilo.org/dyn/icsc/showcard.home
- HSDB Hazardous Substances Data Bank, website: https://toxnet.nlm.nih.gov/newtoxnet/hsdb.htm
- IARC International Agency for Research on Cancer, website: http://www.iarc.fr/
- eChemPortal The Global Portal to Information on Chemical Substances by OECD, website: http://www.echemportal.org/echemportal/index?pageID=0&request locale=en
- CAMEO Chemicals, website: http://cameochemicals.noaa.gov/search/simple
- ChemlDplus, website: http://chem.sis.nlm.nih.gov/chemidplus/chemidlite.jsp
- ERG Emergency Response Guidebook by U.S. Department of Transportation, website: http://www.phmsa.dot.gov/hazmat/library/erg
- Germany GESTIS-database on hazard substance, website: http://www.dguv.de/ifa/gestis/gestis-stoffdatenbank/index-2.jsp
- ECHA European Chemicals Agency, website: https://echa.europa.eu/

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