# SAFETY DATA SHEET

Version: v1 Revision Date: 2023-11-05 Print Date: 2023-11-14

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

# **1.1 Product identifiers**

Product name	: Ethylene imine polymer
Product Number	: E107080
Brand	: aladdin
CAS-No.	: 9002-98-6(water)

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

: Laboratory chemicals, Manufacture of substances

1.3

# Details of the supplier of the safety data sheet

Company	: Shanghai Aladdin Biochemical Tech Co.,Ltd
Address	: 36 Xinjinqiao Road, Shanghai
Telephone	: 400-620-6333
Fax	: no data available

# **1.4** Emergency telephone number

Emergency Phone	: 0532-83889090
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# **SECTION 2: Hazards identification**

#### 2.1 Classification of the substance or mixture

GHS Classification in accordance with 29 CFR 1910 (OSHA HCS) Acute toxicity, Oral (Category 4), H302

Eye irritation (Category 2), H319

Skin sensitisation (Category 1), H317

Long-term (chronic) aquatic hazard (Category 2), H411

# 2.2 GHS Label elements, including precautionary statements

# Pictogram



Signal word Hazard statement(s) H302 H317

Harmful if swallowed May cause an allergic skin reaction

H319	Causes serious eye irritation
H411	Toxic to aquatic life with long lasting effects
Precautionary statement(s)	
P261	Avoid breathing dust/fume/gas/mist/vapors/spray.
P264	Wash hands [and] thoroughly after handling.
P270	Do not eat, drink or smoke when using this product.
P272	Contaminated work clothing should not be allowed out of the workplace.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.
P330	Rinse mouth.
P391	Collect spillage.
P301+P312	IF SWALLOWED: call a POISON CENTER/doctor/ IF you feel unwell.
P302+P352	IF ON SKIN: wash with plenty of water.
P305+P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact
	lenses if present and easy to do - continue rinsing.
P332+P313	IF SKIN irritation occurs: Get medical advice/attention.
P337+P313	IF eye irritation persists: Get medical advice/attention.
P501	Dispose of contents/container to an approved waste disposal plant.

# 2.3 Hazards not otherwise classified (HNOC) or not covered by GHS

# **SECTION 3: Composition/information on ingredients**

#### 3.2 Mixtures

Synonyms	: Ethyleneimine polymer solution; PEI; Polyethyleneimine;
Poly(ethyleneimine) solution	
Formula	: (CH2CH2NH)n
Molecular weight	: no data available

Component	Classification	Concentration
Ethylene imine polymer		

 CAS-No.: 9002-98-6
 Acute Tox. 4; Eye Irrit. 2; Skin Sens. 1; Aquatic Chronic 2; H302, H319,

 EC-No.:
 H317, H411

# **SECTION 4: First aid measures**

# 4.1 Description of first aid measures

### General advice

Consult a physician. Show this safety data sheet to the doctor in attendance.

#### If inhaled

If breathed in, move person into fresh air. If not breathing, give artificial respiration. Consult a physician.

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#### In case of skin contact

Wash off with soap and plenty of water. Consult a physician.

# In case of eye contact

Rinse thoroughly with plenty of water for at least 15 minutes and consult a physician.

#### If swallowed

Never give anything by mouth to an unconscious person. Rinse mouth with water. Consult a physician.

# 4.2 Most important symptoms and effects, both acute and delayed

no data available

# **4.3** Indication of any immediate medical attention and special treatment needed no data available

# **SECTION 5: Firefighting measures**

# 5.1 Extinguishing media

Suitable extinguishing media Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide. Unsuitable extinguishing media no data available

# 5.2 Special hazards arising from the substance or mixture

Carbon oxides, Nitrogen oxides (NOx)

# 5.3 Advice for firefighters

Wear self contained breathing apparatus for fire fighting if necessary.

# 5.4 Further information

no data available

# **SECTION 6:** Accidental release measures

# 6.1 Personal precautions, protective equipment and emergency procedures

Use personal protective equipment. Avoid breathing vapours, mist or gas. Ensure adequate ventilation.

# 6.2 Environmental precautions

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

# 6.3 Methods and materials for containment and cleaning up

Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

# 6.4 Reference to other sections

For disposal see section 13.

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# **SECTION 7: Handling and storage**

# 7.1 Precautions for safe handling

Avoid contact with skin and eyes. Avoid inhalation of vapour or mist.

#### 7.2 Conditions for safe storage, including any incompatibilities

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. Store in cool place. Store under inert gas. Sensitive to carbon dioxide

# 7.3 Specific end use(s)

no data available

# **SECTION 8: Exposure controls/personal protection**

# 8.1 Control parameters

#### 8.2 Exposure controls

#### Appropriate engineering controls

Handle in accordance with good industrial hygiene and safety practice.Wash hands before breaks and at the end of workday.

#### Personal protective equipment

#### Eye/face protection

Face shield and safety glasses Use equipment for eye protection tested and approved under appropriate government standards such as NIOSH (US) or EN 166(EU).

#### Skin protection

Handle with gloves.Gloves must be inspected prior to use.Use proper glove removal technique (without touching gloves outer surface) to avoid skin contact with this product.Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices.Wash and dry hands.

#### **Body Protection**

Complete suit protecting against chemicals, The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

#### **Respiratory protection**

Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multipurpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

#### Control of environmental exposure

no data available

#### **SECTION 9: Physical and chemical properties**

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# 9.1 Information on basic physical and chemical properties

a) Appearance	no data available
b) Odour	no data available
c) Odour Threshold	no data available
d) pH	no data available
e) Melting point/freezing point	no data available
f) Initial boiling point and boiling range	no data available
g) Flash point	no data available
h) Evaporation rate	no data available
i) Flammability (solid, gas)	no data available
j) Upper/lower flammability or explosive	<u>è</u>
limits	no data available
k) Vapour pressure	no data available
l) Vapour density	no data available
m) Relative density	no data available
n) Water solubility	no data available
o) Partition coefficient: n-octanol/water	no data available
p) Auto-ignition temperature	no data available
q) Decomposition temperature	no data available
r) Viscosity	no data available
s) Explosive properties N	no data available
t) Oxidizing properties N	no data available
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# 9.2 Other safety information

no data available

# SECTION 10: Stability and reactivity

# 10.1 Reactivity

no data available

#### **10.2 Chemical stability**

Stable under recommended storage conditions.

# **10.3 Possibility of hazardous reactions**

no data available

# **10.4** Conditions to avoid

no data available

# **10.5** Incompatible materials

Strong oxidizing agents

# **10.6 Hazardous decomposition products**

no data available

# **SECTION 11: Toxicological information**

# **11.1** Information on toxicological effects

Acute toxicity LD50 Oral - Rat - 500 - 2.000 mg/kg

Skin corrosion/irritation no data available Serious eye damage/eye irritation no data available Respiratory or skin sensitisation no data available Germ cell mutagenicity no data available Carcinogenicity no data available **Reproductive toxicity** no data available Specific target organ toxicity - single exposure no data available Specific target organ toxicity - repeated exposure no data available Aspiration hazard no data available **Additional Information** To the best of our knowledge, the chemical, physical, and toxicological properties have not been thoroughly investigated.

# **SECTION 12: Ecological information**

# 12.1 Toxicity

# 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 Results of PBT and vPvB assessment

no data available

#### 12.6 Other adverse effects

Toxic to aquatic life with long lasting effects.

# SECTION 13:

#### **13.1** Disposal considerations

#### Product

Offer surplus and non-recyclable solutions to a licensed disposal company.Contact a licensed professional waste disposal service to dispose of this material.Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.

#### **Contaminated packaging**

Dispose of as unused product.

# **SECTION 14: Transport information**

# DOT (US)

UN number: 3082	Packing group: III	Class: 9
Proper shipping name: Environmentally	Reportable Quantity(RQ): no data	Poison Inhalation Hazard: no data
hazardous substance, liquid, n.o.s.	available	available
(Aziridine, homopolymer)		
Environmental Hazards: yes		
IMDG		
UN number: 3082	Packing group: III	EMS-No: no data available
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Aziridine, homopolymer)		
ΙΑΤΑ		
UN number: 3082	Packing group: III	Class: 9
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s. (Aziridine, homopolymer)		

#### **SECTION 15: Regulatory information**

This safety datasheet complies with the requirements of Regulation (EC) No. 1907/2006.

# **SECTION 16: Other information**

#### **Further information**

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