

# 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: ACRYLAMIDE

Revision date: 29/09/2011  
Printing date: 29/09/2011

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

### 1.1 Product identifier

Product name: Acrylamide  
Substance name: 2-Propenamide  
REACH Reg. No.: No registration number is given yet for this phase-in substance since the transition period for its registration according to Article 23 of REACH has not yet expired.  
Index No.: 616-003-00-0  
CAS No.: 79-06-1  
EC No.: 201-173-7

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

Identified uses: Manufacture of polymers, medicines and dyes.  
Uses advised against: No data available.

### 1.3 Details of the supplier of the SDS

Manufacturer: ZHEJIANG XINYONG BIOCHEMICAL CO.,LTD.  
Address: NO.359 ZHONGPU ROAD, NINGBO CHEMICAL INDUSTRY ZONE, ZHEJIANG, CHINA.  
E-mail: dorothisheng@hotmail.com  
Telephone: +86 574 86501516  
Fax: +86 574 86509996

Importer:  
Address:  
E-mail:  
Telephone:



### 1.4 Emergency telephone number

+86 523 3889090

## Section 2: Hazards identification

### 2.1 Classification of the substance or mixture

Classification according to Regulation (EC) No 1272/2008[CLP]  
Carcinogenicity, Category 1B; H350  
Germ cell mutagenicity, Category 1B; H340  
Reproductive toxicity, Category 2; H361f  
Acute toxicity, Category 3, oral; H301  
Specific Target Organ Toxicity (repeated exposure), Category 1; H372  
Acute toxicity, Category 4, inhalation; H332

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Acute toxicity, Category 4, dermal; H312

Eye irritation, Category 2; H319

Skin irritation, Category 2; H315

Skin sensitisation, Category 1; H317

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

Carc.Cat.2; R45

Muta.Cat.2; R46

Repr.Cat.3; R62

T; R25-48/23/24/25

Xn; R20/21

Xi; R36/38

R43

## Additional information

Full text of R-phrases and H-statements: see section 16.

## 2.2 Label elements

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

**Substance name:** 2-Propenamide

**Hazard pictogram(s):**



**Signal word:** Danger

## Hazard statements:

H350: May cause cancer.

H340: May cause genetic defects.

H361f: Suspected of damaging fertility.

H301: Toxic if swallowed.

H372: Causes damage to organs through prolonged or repeated exposure.

H332: Harmful if inhaled.

H312: Harmful in contact with skin.

H319: Causes serious eye irritation.

H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

## Precautionary statements:

P201: Obtain special instructions before use.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P301+P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.

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

P308+P313: IF exposed or concerned: Get medical advice/attention.

## Supplemental Hazard information (EUH):

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Special rules for supplemental label elements for certain mixtures:  
None.

## 2.3 Other hazards

No information available.

## Section 3: Composition/information on ingredients

### 3.1 Substance information

Substance name: 2-Propenamide  
REACH registration No.: No registration number is given yet for this phase-in substance since the transition period for its registration according to Article 23 of REACH has not yet expired.  
Index No.: 616-003-00-0  
CAS No.: 79-06-1  
EC No.: 201-173-7  
Synonyms: AAM, Acrylagel, Acrylamide  
Purity:  $\geq 98\%$   
Molecular formula:  $C_3H_5NO$   
Full text of R-phrase(s) and H-statement(s): see section 16.

## Section 4: First aid measures

### 4.1 Description of first aid measures

**General notes:** In all cases of doubt, or when symptoms persist, seek medical attention.

**Following inhalation:**

If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician.

**Following skin contact:**

Wipe off mechanically and wash afflicted areas thoroughly with soap and plenty of water.

**Following eye contact:**

Rinse carefully and thoroughly with water and seek medical advice.

**Following ingestion:**

Never give anything through mouth to an unconscious person. Get medical attention.

**Notes for the doctor:**

Treat symptomatically and supportively.

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

Irritant effects, allergic reactions, muscular weakness, impaired locomotor coordination, CNS disorders, Tremors

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Causes epileptic seizures.

## 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, Carbon dioxide (CO<sub>2</sub>), Foam, Dry powder

Unsuitable extinguishing media: No data available.

### 5.2 Special hazards arising from the substance or mixture

When heated to decomposition acrylamide emits acrid smoke and fumes.

### 5.3 Advice for fire-fighters

Stay in danger area only with self-contained breathing apparatus. Prevent skin contact by keeping a safe distance or by wearing suitable protective clothing.

## Section 6: Accidental release measures

### 6.1 Personal precautions, protective equipment and emergency procedures

Refer to Section 8 for personal protective equipment. Prevention of skin and eye contact. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

### 6.2 Environmental precautions

Do not empty into drains.

### 6.3 Methods and material for containment and cleaning up

Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

### 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

Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. Minimize dust generation and accumulation. Avoid contact with eyes, skin, and clothing. Keep container tightly closed. Avoid contact with heat, sparks and flame. Do not ingest or inhale. Use with adequate ventilation.

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## 7.2 Conditions for safe storage, including any incompatibilities

Keep away from heat, sparks, and flame. Do not store in direct sunlight. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Keep away from acids. Do not store near alkaline substances. Keep away from polymerization catalysts.

## 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:

2-Propenamide 79-06-1	Occupational exposure limit values			
	Long term/ Eight hours		Short term	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>
Austria		0.03		0.12
Belgium		0.03		
Canada	0.03			
Denmark		0.03		0.06
European Union				
France	0.1	0.3		
Germany		0.07(1,2)		
Germany				
Hungary				0.03
Japan		0.1		
Poland		0.1		
Spain		0.03		
Sweden		0.03		0.1
Switzerland		0.03 inhalable aerosol		
The Netherlands		0.16		
USA - NIOSH		0.03		
USA - OSHA		0.3		
United Kingdom		0.3		

**DNEL (Derived No Effect Level) for workers and the general population:** No DNEL values available.

**PNEC (Predicted No Effect Concentration) values:** No PNEC values available.

### 8.2 Exposure controls

**Appropriate engineering controls:**

Ensure adequate ventilation, especially in confined areas.

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## Personal protective equipment:

- Eye and face protection: Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible.
- Skin protection: Handle with gloves. Gloves must be inspected prior to use. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.  
Complete suit protecting against chemicals.
- Respiratory protection: Wear appropriate respiratory equipment.

## Environmental exposure controls:

Do not empty into drains.

## Industrial hygiene:

Immediately change contaminated clothing. Apply preventive skin protection. Wash hands and face after working with substance. Work under hood. Do not inhale substance.

## Section 9: Physical and chemical properties

### 9.1 Information on basic physical and chemical properties

Appearance:	solid
Colour:	white
Odour:	odourless
pH:	5,0 - 7,0 (50 g/l at 20°C)
Melting point:	84°C
Boiling point:	125°C at 33.3 hPa
Density:	1.127 g/cm <sup>3</sup> at 25°C
Vapour pressure:	0.009 hPa at 20°C
Partition coefficient (n-octanol/water):	log Pow: -1,24 Method: (experimental)
Water Solubility(ies):	2.040 g/l at 25°C
Flash point:	138°C
Auto-ignition temperature:	No information available.
Decomposition temperature:	175 - 300°C
Flammability:	No information available.
Explosive properties:	No information available.
Oxidising properties:	No information available.
Viscosity:	Not applicable.

### 9.2 Other information

No data available.

## Section 10: Stability and reactivity

### 10.1 Reactivity

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May polymerize explosively.  
Risk of dust explosion.  
Forms explosive mixtures with air on intense heating.

## 10.2 Chemical stability

May polymerize explosively. Thermally unstable. Polymerization may be caused by exposure to heat, U.V. light, oxidizers, or peroxides.

## 10.3 Possibility of hazardous reactions

Violent reactions possible with: alkalines, Oxidizing agents, Reducing agents, Bases, Metals, Peroxides, acids

## 10.4 Conditions to avoid

Light, warmth/heat, heating (decomposition).

## 10.5 Incompatible materials

Acids, oxidizing agents and bases. Spontaneously reacts with hydroxyl-, amino-, and sulfhydryl- containing compounds.

## 10.6 Hazardous decomposition products

Nitrogen oxides and carbon oxides.

## Section 11: Toxicological information

### 11.1 Toxicokinetics, metabolism and distribution

No information available.

### 11.2 Information on toxicological effects

#### Acute toxicity:

Acute oral toxicity: LD<sub>50</sub> = 124mg/kg (rat);  
Acute inhalation toxicity: No data available;  
Acute dermal toxicity: LD<sub>50</sub> = 252mg/kg (rabbit).

#### Skin corrosion/irritation:

Causes skin irritation.

#### Serious eye damage/irritation:

Causes serious eye irritation.

#### Respiratory or skin sensitization:

May cause an allergic skin reaction.

#### CMR effects (Carcinogenicity, Mutagenicity and Toxicity for Reproduction):

Carcinogenicity: May cause cancer.  
Mutagenicity: May cause genetic defects.  
Reproductive toxicity: Suspected of damaging fertility.

#### STOT-single exposure and repeated exposure:

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The substance or mixture is not classified as specific target organ toxicant, single exposure.

Causes damage to organs through prolonged or repeated exposure.

**Aspiration hazard:**

No aspiration toxicity classification.

## Section 12: Ecological information

### 12.1 Toxicity

Acute toxicity to fish:  $LC_{50} = 100 \text{ mg/l/96h}$  (蓝鳃太阳鱼);

Acute toxicity to daphnia:  $EC_{50} = 98 \text{ mg/l/48h}$  (大型水蚤);

Acute toxicity to algae:  $IC_{50} = 72 \text{ mg/l}$  (绿藻).

### 12.2 Persistence and degradability

Readily biodegradable. 100% after 28 d.

Method: OECD Test Guideline 301D.

### 12.3 Bioaccumulative potential

Bioaccumulation is not expected ( $\log Pow < 1$ ).

### 12.4 Mobility in soil

No information available.

### 12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment information is not available as chemical safety assessment not conducted.

### 12.6 Other adverse effects

Do not allow to run into surface waters, wastewater, or soil.

## Section 13: Disposal considerations

### 13.1 Waste treatment methods

Product:

Offer surplus and non-recyclable solutions to a licensed disposal company. 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

### 14.1 Land transport(ADR/RID)

Proper Shipping Name: ACRYLAMIDE, SOLID

Class: 6.1



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UN-No.: 2074  
Packing group: III  
Hazard label: 6

## 14.2 Sea transport (IMDG)

Proper Shipping Name: ACRYLAMIDE, SOLID  
Class: 6.1  
UN-No.: 2074  
Packing group: III  
Marine pollutant: No

## 14.3 Air transport (ICAO-IATA)

Proper Shipping Name: ACRYLAMIDE, SOLID  
Class: 6.1  
UN-No.: 2074  
Packing group: III

## 14.4 Additional information

Mark for transport: No information available.

## Section 15: Regulatory information

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

#### EU regulation:

Authorisations: No information available.  
Restrictions on use: No information available.  
EINECS/ELINCS: The substance (79-06-1) is listed in the EINECS inventory.  
DSD (67/548/EEC): The substance (79-06-1) is listed in the inventory.

#### Other chemical regulation:

USA - TSCA: The substance (79-06-1) is listed in the inventory.  
Canada - DSL: The substance (79-06-1) is listed in the inventory.  
Australia - AICS: The substance (79-06-1) is listed in the inventory.  
Korea - ECL: The substance (79-06-1) is listed in the inventory.  
Japan - ENCS: The substance (79-06-1) is listed in the inventory.  
China - IECSC: The substance (79-06-1) is listed in the inventory.

### 15.2 Chemical Safety Assessment

No Chemical Safety Assessment has been carried out for this product.

## Section 16: Other information

### 16.1 Revision Information:

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Date of the previous revision: Not applicable.

Date of this revision: 29/09/2011.

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

- ESIS Dataset: European chemical Substances Information System.
- GESTIS-database: Information system on hazardous substances of the German Social Accident Insurance.
- HSDB: Hazardous Substances Data Bank.
- The Chemical Database: The Department of Chemistry of the University of Akron.
- ECHA's public database with information on registered substances.

## 16.4 Relevant R-phrases and H-statements

### R-phrases (code and full text):

- R45: May cause cancer.
- R46: May cause heritable genetic damage.
- R20/21: Harmful by inhalation and in contact with skin.
- R25: Toxic if swallowed.
- R36/38: Irritating to eyes and skin.
- R43: May cause sensitization by skin contact.
- R48/23/24/25: Toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed.
- R62: Possible risk of impaired fertility.
- H350: May cause cancer.
- H340: May cause genetic defects.
- H361f: Suspected of damaging fertility.
- H301: Toxic if swallowed.
- H372: Causes damage to organs through prolonged or repeated exposure.
- H332: Harmful if inhaled.
- H312: Harmful in contact with skin.
- H319: Causes serious eye irritation.
- H315: Causes skin irritation.

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H317: May cause an allergic skin reaction.

**H-statements (code and full text):**

## 16.5 Training advice

Provide adequate information, instruction and training for operators.

## 16.6 Declare to reader

The information in this Safety Data Sheet (SDS) was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness. The conditions or methods of handling, storage, use or disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of the product. This SDS was prepared and is to be used only for this product. If the product is used as a component in another product, this SDS information may not be applicable. 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 -----