



SIGMA-ALDRICH

## Material Safety Data Sheet

Date Printed: 05/18/2004  
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Version 1.70

### Section 1 - Product and Company Information

**Product Name** Acrylamide/Bis-acrylamide, 40% Stock Solution Mixture (29:1 Ratio)  
**Product Number** A2792  
**Brand** Sigma Chemical

**Company** Sigma-Aldrich  
**Street Address** 3050 Spruce Street  
**City, State, Zip, Country** SAINT LOUIS, MO 63103 US  
**Technical Phone:** 314 771 5765  
**Fax:** 800 325 5052

**Emergency Phone:** 414 273 3850 Ext. 5996

### Section 2 - Composition/Information on Ingredient

<u>Substance Name</u>	<u>CAS #</u>	<u>SARA 313</u>	<u>EC no</u>	<u>Annex I Index Number</u>
ACRYLAMIDE BIS-ACRYLAMIDE SOLID MIXTURE	None	Yes		

<u>Ingredient Name</u>	<u>CAS #</u>	<u>Percent</u>	<u>SARA 313</u>
ACRYLAMIDE	79-06-1	>= 95.000 % <= 98.000 %	Yes
N,N'-METHYLENE BIS(ACRYLAMIDE)	110-26-9	>= 2.000 % <= 5.000 %	No

**Formula**  
**Synonyms**

### Section 3 - Hazards Identification

#### Emergency Overview

Toxic.  
May cause cancer. May cause heritable genetic damage. May impair fertility. Possible risk of harm to the unborn child. Toxic in contact with skin and if swallowed. Irritating to eyes and skin. May cause sensitization by inhalation and skin contact.  
Readily absorbed through skin. Target organ(s): Nerves. Kidneys.

**HMS Rating**  
Health: 3\* Flammability: 0 Reactivity: 2

**NFPA Rating**  
Health: 3 Flammability: 0 Reactivity: 2

\*additional chronic hazards present.

For additional information on toxicity, please refer to Section 11.

### Section 4 - First Aid Measures

#### Oral Exposure

If swallowed, wash out mouth with water provided person is conscious. Call a physician immediately.

#### Inhalation Exposure

If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.

#### Dermal Exposure

In case of skin contact, flush with copious amounts of water for at least 15 minutes. Remove contaminated clothing and shoes. Call a physician.

#### Eye Exposure

In case of contact with eyes, flush with copious amounts of water for at least 15 minutes. Assure adequate flushing by separating the eyelids with fingers. Call a physician.

### Section 5 - Fire Fighting Measures

#### Explosion Hazards

Container explosion may occur under fire conditions.

**Autoignition Temp:** N/A

#### Extinguishing Media

##### Suitable

Carbon dioxide, dry chemical powder, or appropriate foam.

#### Firefighting

##### Protective Equipment

Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

##### Specific Hazard(s)

Emits toxic fumes under fire conditions.

### Section 6 - Accidental Release Measures

#### Procedure to be Followed in Case of Leak or Spill

Evacuate area.

#### Procedure(s) of Personal Precaution(s)

Wear self-contained breathing apparatus, rubber boots, and heavy rubber gloves.

#### Methods for Cleaning Up

Sweep up, place in a bag and hold for waste disposal. Avoid raising dust. Ventilate area and wash spill site after material pickup is complete.

### Section 7 - Handling and Storage

#### Handling

##### User Exposure

Do not breathe dust. Do not get in eyes, on skin, on clothing. Avoid prolonged or repeated exposure.

**Storage**  
**Storable**  
Keep tightly closed.

## Section 8 - Exposure Controls / PPE

**Engineering Controls**  
Use only in a chemical fume hood. Safety shower and eye bath.

**Personal Protective Equipment**  
**Respiratory**  
Government approved respirator.  
**Hand**  
Compatible chemical-resistant gloves.  
**Eye**  
Chemical safety goggles.

**General Hygiene Measures**  
Wash contaminated clothing before reuse. Wash thoroughly after handling.

## Section 9 - Physical/Chemical Properties

**Appearance**  
**Physical State**  
Solid

**Molecular Weight:** N/A

**pH** N/A  
**BP/BP Range** N/A  
**MP/MP Range** N/A  
**Freezing Point** N/A  
**Vapor Pressure** N/A  
**Vapor Density** N/A  
**Saturated Vapor Conc.** N/A  
**SG/Density** N/A  
**Bulk Density** N/A  
**Odor Threshold** N/A  
**Volatile%** N/A  
**VOC Content** N/A  
**Water Content** N/A  
**Solvent Content** N/A  
**Evaporation Rate** N/A  
**Viscosity** N/A  
**Partition Coefficient** N/A  
**Decomposition Temp.** N/A  
**Flash Point °F** N/A  
**Flash Point °C** N/A  
**Explosion Limits** N/A

**Flammability** N/A  
**Autoignition Temp** N/A

**Solubility** N/A

**N/A = not available**

## Section 10 - Stability and Reactivity

**Stability**  
**Stable**  
Unstable.  
**Conditions to Avoid**  
Air sensitive.  
**Materials to Avoid**  
Avoid contact with acid., Bases, Oxidizing agents, Reducing agents, Iron and iron salts., Copper, Aluminum, Brass, Free radical initiators.

**Hazardous Decomposition Products**  
**Hazardous Decomposition Products**  
Carbon monoxide, Carbon dioxide, Nitrogen oxides, Ammonia.

**Hazardous Polymerization**  
**Hazardous Polymerization**  
May occur.  
**Hazardous Polymerization Reactions**  
May polymerize on exposure to light.

## Section 11 - Toxicological Information

**Route of Exposure**  
**Skin Contact**  
Causes skin irritation.  
**Skin Absorption**  
Toxic if absorbed through skin. Readily absorbed through skin.  
**Eye Contact**  
Causes eye irritation.  
**Inhalation**  
May be harmful if inhaled.  
**Ingestion**  
Toxic if swallowed.

**Sensitization**  
**Respiratory**  
May cause allergic respiratory reaction.  
**Skin**  
May cause allergic skin reaction.

**Target Organ(s) or System(s)**  
Nerves. Kidneys.

**Signs and Symptoms of Exposure**  
Acrylamide toxicity is manifested as a sensorimotor peripheral neuropathy. Symptoms include: drowsiness, loss of balance, confusion, memory loss, hallucinations, numbness, paresthesias (ataxia, tremor, dysarthria), and incoordination.

**RTECS Number:** N/A

**Chronic Exposure - Carcinogen**  
Result: This product is or contains a component that has been reported to be probably carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification.

**Chronic Exposure - Teratogen**  
Result: Possible risk of congenital malformation in the fetus.

**Chronic Exposure - Reproductive Hazard**

Result: May cause reproductive disorders.

**Section 12 - Ecological Information**

No data available.

**Section 13 - Disposal Considerations****Appropriate Method of Disposal of Substance or Preparation**

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.  
Observe all federal, state, and local environmental regulations.

**Section 14 - Transport Information****DOT**

**Proper Shipping Name:** Acrylamide  
**UN#:** 2074  
**Class:** 6.1  
**Packing Group:** Packing Group III  
**Hazard Label:** Keep away from food  
**PIH:** Not PIH

**IATA**

**Proper Shipping Name:** Acrylamide  
**IATA UN Number:** 2074  
**Hazard Class:** 6.1  
**Packing Group:** III

**Section 15 - Regulatory Information****EU Additional Classification**

**Symbol of Danger:** T  
**Indication of Danger**  
Toxic.

**Risk Statements** R: 45 46 20/21 25 36/38 43 48/23/24/25 62

May cause cancer. May cause heritable genetic damage. Also harmful by inhalation and in contact with skin. Also toxic if swallowed. Irritating to eyes and skin. May cause sensitization by skin contact. Also toxic: danger of serious damage to health by prolonged exposure through inhalation, in contact with skin and if swallowed. Possible risk of impaired fertility.

**Safety Statements** S: 53 45

Restricted to professional users. Attention - Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

**US Classification and Label Text**

**Indication of Danger**  
Toxic.

**Risk Statements**

May cause cancer. May cause heritable genetic damage. May impair fertility. Possible risk of harm to the unborn child. Toxic in contact with skin and if swallowed. Irritating to eyes and skin. May cause sensitization by inhalation and skin contact.

**Safety Statements**

Avoid exposure - obtain special instructions before use. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible). Wear suitable protective clothing, gloves, and eye/face protection. Do not breathe dust.

**US Statements**

Readily absorbed through skin. Target organ(s): Nerves. Kidneys.

**United States Regulatory Information**

**SARA Listed:** Yes

**Notes:** This product is or contains a component that is subject to SARA313 reporting requirements.

**United States - State Regulatory Information****California Prop - 65**

This product is or contains chemical(s) known to the state of California to cause cancer.

**Canada Regulatory Information****WHMIS Classification**

This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.

**DSL:** No

**NDSL:** No

**Section 16 - Other Information****Disclaimer**

For R&D use only. Not for drug, household or other uses.

**Warranty**

The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of the product. Sigma-Aldrich Inc., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale. Copyright 2004 Sigma-Aldrich Co. License granted to make unlimited paper copies for internal use only.

