# Acrylamide Solution, 40%: sc-3721

## MATERIAL SAFETY DATA SHEET

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Name:** Acrylamide Solution, 40%
**Product Number:** sc-3721

**Supplier:** Santa Cruz Biotechnology, Inc.
2145 Delaware Avenue
Santa Cruz, CA 95060
800.457.3801 or 831.457.3800

**Emergency:** ChemWatch
Within the US & Canada: 877-715-9305
Outside the US & Canada: +800 2436 2255 (1-800-CHEMCALL) or call +613 9573 3112

## 2. HAZARDS IDENTIFICATION

**Emergency Overview**

**OSHA Hazards**

Respiratory sensitiser, Skin sensitiser, Carcinogen, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant, Teratogen, Reproductive hazard, Mutagen

**Target Organs**

Nerves, Kidney

**GHS Classification**

Acute toxicity, Oral (Category 4)
Acute toxicity, Inhalation (Category 2)
Acute toxicity, Dermal (Category 3)
Skin irritation (Category 2)
Eye irritation (Category 2A)
Respiratory sensitization (Category 1)
Skin sensitization (Category 1)
Germ cell mutagenicity (Category 1B)
Carcinogenicity (Category 1B)
Reproductive toxicity (Category 2)
Acute aquatic toxicity (Category 3)

**GHS Label elements, including precautionary statements**

Pictogram

Signal word: Danger

**Hazard statement(s)**

| | |
|---|---|
| H302 | Harmful if swallowed. |
| H311 | Toxic in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H330 | Fatal if inhaled. |
| H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H361 | Suspected of damaging fertility or the unborn child. |
| H402 | Harmful to aquatic life. |

**Precautionary statement(s)**

| | |
|---|---|
| P201 | Obtain special instructions before use. |
| P260 | Do not breathe dust/ fume/ gas/ mist/ vapors/ spray. |
| P280 | Wear protective gloves/ protective clothing. |
| P284 | Wear respiratory protection. |
| P305 + P351 + P338 | IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. |
| P310 | Immediately call a POISON CENTER or doctor/ physician. |

**HMIS Classification**

| | |
|---|---|
| **Health hazard:** | 2 |
| **Chronic Health Hazard:** | * |
| **Flammability:** | 0 |
| **Physical hazards:** | 0 |

**NFPA Rating**

| | |
|---|---|
| **Health hazard:** | 2 |
| **Fire:** | 0 |
| **Reactivity Hazard:** | 0 |

**Potential Health Effects**

| | |
|---|---|
| **Inhalation** | Toxic if inhaled. Causes respiratory tract irritation. |
| **Skin** | Toxic if absorbed through skin. Causes skin irritation. |
| **Eyes** | Causes eye irritation. |
| **Ingestion** | Toxic if swallowed. |

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Formula:** C3H5NO
**Molecular Weight:** 71.08 g/mol
**CAS Number:** 79-06-1

| *CAS-No.* | | *Classification* | *Concentration* |
|---|---|---|---|
| **Acrylamide** | | | |
| CAS-No. | 79-06-1 | Carc. 1B; Muta. 1B; Repr. 2; Acute Tox. 3; STOT RE 1; Acute Tox. 4; Eye Irrit. 2; Skin Irrit. 2; Skin Sens. 1; H372, H319, H315, H301, H312, H317, H332, H340, H350, H361f | 30 - 60% |
| EC-No. | 201-173-7 | | |
| Index-No. | 616-003-00-0 | | |
| Registration number | 01-2119463260-48-XXXX | | |

For the full text of the H-Statements and R-Phrases mentioned in this Section, see Section 16

## 4. FIRST AID MEASURES

**General advice**
Move out of dangerous area.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.
**In case of skin contact**
Wash off with soap and plenty of water. Take victim immediately to hospital. 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.

## 5. FIREFIGHTING MEASURES

**Conditions of flammability**
Not flammable or combustible.
**Suitable extinguishing media**
Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.
**Special protective equipment for firefighters**
Wear self contained breathing apparatus for fire fighting if necessary.
**Hazardous combustion products**
Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NOx), Ammonia

## 6. ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Wear respiratory protection. Avoid breathing vapors, mist or gas. Ensure adequate ventilation. Evacuate personnel to safe areas.
**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.
**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.

## 7. HANDLING AND STORAGE

**Precautions for safe handling**
Avoid contact with skin and eyes. Avoid inhalation of vapor or mist.

**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. Recommended storage temperature: 2 - 8 °C. Light sensitive. Store under inert gas.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

**Components with workplace control parameters**

| Components | CAS-No. | Value | Control parameters | Basis |
|---|---|---|---|---|
| Acrylamide | 79-06-1 | TWA | 0.3 mg/m3 | USA. Occupational Exposure Limits (OSHA) - Table Z-1 Limits for Air Contaminants |
| Remarks | Skin designation | | | |
| | | TWA | 0.03 mg/m3 | USA. OSHA - TABLE Z-1 Limits for Air Contaminants - 1910.1000 |
| | Skin notation | | | |
| | | TWA | 0.03 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | Central Nervous System impairment Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption | | | |
| | | TWA | 0.03 mg/m3 | USA. NIOSH Recommended Exposure Limits |
| | Potential Occupational Carcinogen See Appendix A Potential for dermal absorption | | | |
| | | TWA | 0.03 mg/m3 | USA. ACGIH Threshold Limit Values (TLV) |
| | Central Nervous System impairment Confirmed animal carcinogen with unknown relevance to humans Danger of cutaneous absorption | | | |

**Personal protective equipment**
**Respiratory protection**
Where risk assessment shows air-purifying respirators are appropriate use a full-face respirator with multi-purpose 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).
**Hand 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. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.
**Eye 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 and 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.
**Hygiene measures**
Avoid contact with skin, eyes and clothing. Wash hands before breaks and immediately after handling the product.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | | | |
|---|---|---|---|
| Form | liquid | pH | no data available |
| Melting point/freezing point | no data available | Boiling point | no data available |
| Flash point | no data available | Ignition temperature | no data available |
| Autoignition temperature | no data available | Lower explosion limit | no data available |
| Upper explosion limit | no data available | Vapor pressure | no data available |
| Density | no data available | Water solubility | no data available |
| Relative vapor density | no data available | Odor | no data available |
| Odor Threshold | no data available | Evaporation rate | no data available |
| Partition coefficient: n-octanol/water | no data available | | |

## 10. STABILITY AND REACTIVITY

**Chemical stability**
Stable under recommended storage conditions.
**Possibility of hazardous reactions**
no data available
**Conditions to avoid**
no data available
**Materials to avoid**
Acids, Bases, Oxidizing agents, Reducing agents, Iron and iron salts., Copper, Aluminum, Brass, Free radical initiators
**Hazardous decomposition products**
Hazardous decomposition products formed under fire conditions - Carbon oxides, nitrogen oxides (NOx), Ammonia
**Other decomposition products**
no data available

## 11. TOXICOLOGICAL INFORMATION

**Acute toxicity**
- **Oral LD50** no data available
- **Inhalation LC50** no data available
- **Dermal LD50** no data available
- **Other information on acute toxicity** no data available

**Skin corrosion/irritation**
no data available
**Serious eye damage/eye irritation**
Eyes: no data available
**Respiratory or skin sensitization**
May cause allergic respiratory reaction. May cause allergic skin reaction.
**Germ cell mutagenicity**
no data available
**Carcinogenicity**

| | |
|---|---|
| IARC: | 2A - Group 2A: Probably carcinogenic to humans (Acrylamide) |
| NTP: | Reasonably anticipated to be a human carcinogen (Acrylamide) |
| OSHA: | No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by OSHA. |

**Reproductive toxicity**
no data available
**Teratogenicity**
no data available
**Specific target organ toxicity - single exposure (Globally Harmonized System)**
no data available
**Specific target organ toxicity - repeated exposure (Globally Harmonized System)**
no data available
**Aspiration hazard**
no data available
**Potential health effects**

| | |
|---|---|
| **Inhalation** | Toxic if inhaled. Causes respiratory tract irritation. |
| **Ingestion** | Toxic if swallowed. |
| **Skin** | Toxic if absorbed through skin. Causes skin irritation. |
| **Eyes** | Causes eye irritation. |

**Signs and Symptoms of Exposure**
Acrylamide toxicity is manifested as a sensorimotor peripheral neuropathy.
**Synergistic effects**
no data available
**Additional Information**
RTECS: Not available

## 12. ECOLOGICAL INFORMATION

**Toxicity**
no data available
**Bioaccumulative potential**
no data available
**PBT and vPvB assessment**
no data available
**Persistence and degradability**
no data available
**Mobility in soil**
no data available
**Other adverse effects**
no data available

## 13. 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.

## 14. TRANSPORT INFORMATION

**DOT (US)**

UN number: 3426 Class: 6.1 Packing group: III
Proper shipping name: Acrylamide solution
Marine pollutant: No
Poison Inhalation Hazard: No

**IMDG**

UN number: 3426 Class: 6.1 Packing group: III EMS-No: F-A, S-A
Proper shipping name: ACRYLAMIDE SOLUTION
Marine pollutant: No

**IATA**

UN number: 3426 Class: 6.1 Packing group: III
Proper shipping name: Acrylamide solution

## 15. REGULATORY INFORMATION

**OSHA Hazards**

Respiratory sensitiser, Skin sensitiser, Carcinogen, Target Organ Effect, Toxic by inhalation., Toxic by ingestion, Toxic by skin absorption, Irritant, Teratogen, Reproductive hazard, Mutagen

**SARA 302 Components**

The following components are subject to reporting levels established by SARA Title III, Section 302:
Acrylamide CAS-No. 79-06-1

**SARA 313 Components**

The following components are subject to reporting levels established by SARA Title III, Section 313:
Acrylamide CAS-No. 79-06-1

**SARA 311/312 Hazards**

Acute Health Hazard, Chronic Health Hazard

**Massachusetts Right To Know Components**

Acrylamide CAS-No. 79-06-1

**Pennsylvania Right To Know Components**

Water CAS-No. 7732-18-5

Acrylamide CAS-No. 79-06-1

**New Jersey Right To Know Components**

Water CAS-No. 7732-18-5

Acrylamide CAS-No. 79-06-1

**California Prop. 65 Components**

WARNING! This product contains a chemical known to the State of California to cause cancer.
Acrylamide CAS-No. 79-06-1

## 16. OTHER INFORMATION

**Text of H-code(s) and R-phrase(s) mentioned in Section 3**

| | |
|---|---|
| Acute Tox. | Acute toxicity |
| Carc. | Carcinogenicity |
| Eye Irrit. | Eye irritation |
| H301 | Toxic if swallowed. |
| H312 | Harmful in contact with skin. |
| H315 | Causes skin irritation. |
| H317 | May cause an allergic skin reaction. |
| H319 | Causes serious eye irritation. |
| H332 | Harmful if inhaled. |
| H340 | May cause genetic defects. |
| H350 | May cause cancer. |
| H361f | Suspected of damaging fertility. |
| H372 | Causes damage to organs through prolonged or repeated exposure. |
| Muta. | Germ cell mutagenicity |
| Repr. | Reproductive toxicity |
| Skin Irrit. | Skin irritation |
| Skin Sens. | Skin sensitization |
| STOT RE | Specific target organ toxicity - repeated exposure |

***The above information is believed to be correct but does not purport to be complete and should be used only as a guide. The burden of safe use of this material rests entirely with the user.***

1/29/2013