

**AerBio, Ltd.**  
**320 North Walnut**  
**Bloomington, IN 47408**

Telephone: 812.334.9996

Fax: 812.334.1960

Emergency: 800.424.9300

---

**SECTION 1: IDENTIFICATION**

**Product Name:**

Acrylamide

**CAS No.:**

79-06-1

**MF:**

C<sub>3</sub>H<sub>5</sub>NO

**Synonyms:**

Acrylamide (ACGIH, DOT, OSHA) \* Acrylic Amide \* Akrylmid (CZECH) \* Amid Kyseliny Akrylove (CZECH)  
\* Ethylenecarboxamide \* Propenamamide \* 2-Propenamamide (9C1) \* RCRA waste number U007 \* UN 2074 (DOT) \* Vinyl Amide\*

---

**SECTION 2: TOXICITY HAZARDS**

**RTECS No.:**

AS3325000

Acrylamide

**Irritation Data:**

|                             |                 |
|-----------------------------|-----------------|
| SKN-RBT 50 MG/3D MLD        | TXAPA9 6,172,64 |
| SKN-RBT 500 MG/24H MLD      | 85JCAE -,337,86 |
| EYE-RBT 10 MG/30S RINSE MLD | TXAPA9 6,172,64 |
| EYE-RBT 100 MG/24H MOD      | 28ZPAK -,54,72  |

**Toxicity Data:**

|                         |                      |
|-------------------------|----------------------|
| ORL-RAT LD50: 124 MG/KG | AMPMAR 36,58,75      |
| SKN-RAT LD50: 400 MG/KG | GISAAA 44,(10),73,79 |
| IPR-RAT LD50: 90 MG/KG  | AMPMAR 36,58,75      |
| UNR-RAT LD50: 208 MG/KG | GISAAA 43 (9),38,78  |
| ORL-MUS LD50: 107 MG/KG | ARTODN 47,179,81     |
| IPR-MUS LD50: 170 MG/KG | TXAPA9 33,142,75     |
| UNR-MUS LD50: 156 MG/KG | GISAAA 43 (9),38,78  |
| UNR-RBT LD50: 280 MG/KG | GISAAA 43 (9),38,78  |
| SCU-GPG LD50: 170 MG/KG | MELAAD 47,192,56     |
| UNR-GPG LD50: 173 MG/KG | GISAAA 43 (9),38,78  |
| ORL-QAL LD50: 186 MG/KG | JTEHD6 7,935,81      |
| ORL-MAM LD50: 100 MG/KG | KASEAA 17,495,79     |

**Review Standards and Regulations:**

ACGIH TLV-SUSPECTED CARCINOGENS 85INA8 5,12,86  
ACGIH TLV-TWA 0.03 MG/M<sup>3</sup> (SKIN) 85INA8 5,12,86  
IARC CANCER REVIEW: ANIMAL SUFFICIENT EVIDENCE IMEMDT 39,41,86  
IARC CANCER REVIEW: HUMAN NO ADEQUATE DATA IMEMDT 39,41,86  
IARC CANCER REVIEW: GROUP 2B IMSUDL 7,56,87  
MSHA STANDARD-AIR: TWA 0.3 MG/M<sup>3</sup> (SKIN) DTLVS\* 3,5,71  
OSHA PEL: 8H TWA 0.3 MG/M<sup>3</sup> (SKIN) FEREAC 54,2923,89  
OSHA PEL FINAL: 8H TWA 0.03 MG.M<sup>3</sup> (SKIN) FEREAC 54,2923,89  
NIOSH REL TO ACRYLAMIDE-AIR: 10H TWA 0.3 MG/M<sup>3</sup> MMWR\*\* 37 (S-7).3,88  
NOHS 1974: HZD 03540; NIS 10; TNK 442; NOS 24; TNE 7047  
NOES 1983: HZD 03540; NIS 19; TNF 453; NOS 22; TNE 10651; TFE 721  
EPA GENETOX PROGRAM 1988, POSITIVE: CYTOGENETICS-MALE GERM CELL

EPA GENETOX PROGRAM 1988, NEGATIVE: IN VIVO CYTOGENETICS-NONHUMAN BONE MARROW  
EPA GENETOX PROGRAM 1988, INCONCLUSIVE: IN VIVI SCE-NONHUMAN  
EPA TSCA CHEMICAL INVENTORY, JUNE 1990  
EPA TSCA 8(A) PRELIMINARY ASSESMENT INFORMATION, FINAL RULE FEREAC 47,26992,82  
EPA TSCA SECTION 8(E) STATUS REPORT 8EHQ-0783-0488  
EPA TSCA SECTION 8(E) STATUS REPORT 8EHQ-0785-0560  
ON EPA IRIS DATABASE  
EPA TSCA TEST SUBMISSION (TSCATS) DATA BASE. MARCH 1992  
NTP SIXTH ANNUAL REPORT ON CARCINOGENS, 1991: ANTICIAOTED TO BE CARCINOGEN  
OSHA ANALYTICAL METHOD #21

**Target Organ Data:**

PERIPHERAL NERVE AND SENSATION (FLACCID PARALYSIS WITHOUT ANESTHESIA)  
BEHAVIORAL (ALTERED SLEEP TIME)  
BEHAVIORAL (TREMOR)  
BEHAVIORAL (CONVULSIONS OR EFFECT ON SEIZURE THRESHOLD)  
BEHAVIORAL (CHANGE IN MOTOR ACTIVITY)  
BEHAVIORAL (MUSCLE CONTRACTION OR SPASTICITY)  
LUNGS, THORAX OR RESPIRATION (TUMORS)  
GASTROINTESTINAL (NAUSEA OR VOMITING)  
BLOOD (OTHER CHANGES)  
SKIN AND APPENDAGES ( TUMORS)  
PATERAL EFFECTS (SPERMATOGENESIS)  
PATERAL EFFECTS (TESTES, EPIDIDYMIS, SPERM DUCT)  
EFFECTS ON FERTILITY (MALE FERTILITY INDEX)  
EFFECTS ON FERTILITY (PRE-IMPLANTATION MORTALITY)  
EFFECTS ON FERTILITY (POST-IMPLANTATION MORTALITY)  
EFFECTS ON EMBRYO OR FETUS (FETOTOXICITY)  
EFFECTS ON EMBRYO OR FETUS (FETAL DEATH)  
SPECIFIC DEVELOPMENTAL ABNORMALITIES (MUSCULOSKELETAL SYSTEM)  
TUMORIGENIC (CARCINOGENIC BY RTECS CRITERIA)  
TUMORIGENIC (NEOPLASTIC BY RTECS CRITERIA)  
BIOCHEMICAL EFFECTS (TRANSAMINASES)  
BIOCHEMICAL EFFECTS (PEPIDASES)  
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS  
PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

---

**SECTION 3: HEALTH HAZARD DATA**

**Acute Effects:**

Harmful if swallowed, inhaled, or absorbed through skin.  
Causes eye and skin irritation.  
May cause nervous system disturbances.

**Chronic Effects:**

May alter genetic material.  
Overexposure may cause reproductive disorder(s) based on tests with laboratory animals.  
Carcinogen.

**First Aid:**

In case of contact, immediately flush eyes or skin with copious amounts of water for at least 15 minutes while removing contaminated clothing and shoes.  
If inhaled, remove to fresh air. If not breathing give artificial respiration. If breathing is difficult, give oxygen.  
If swallowed, wash out mouth with water provided person is conscious.  
Call a physician immediately.

---

**SECTION 4: PHYSICAL DATA**

**Boiling Point:**

125 C/25MM

**Melting Point:**

84 C to 86 C

**Vapor Density:**

2.45

**Vapor Pressure:**

1.6 MM @ 84.5 C

.03 MM @ 40 C

**Appearance and Odor:**

White crystalline powder, odorless.

**Solubility**

215.5 g/100g water @ 30°C

**Specific Gravity**

1.122 g/cm<sup>3</sup> (30°C)

---

**SECTION 4: FIRE AND EXPLOSION HAZARD DATA**

**Extinguishing Media:**

Carbon dioxide, dry chemical powder or appropriate foam.

**Special Firefighting Procedures:**

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

Use water spray to cool fire-exposed containers.

**Unusual Fire and Explosions Hazards:**

Container explosion may occur under fire conditions.

Emits toxic fumes under fire conditions.

---

**SECTION 5: REACTIVITY DATA**

**Incompatibilities:**

Avoid contact with acid.

Bases.

Oxidizing agents.

Air and moisture sensitive.

Store away from heat and direct sunlight.

May polymerize on exposure to light.

**Hazardous Combustion or Decomposition Products:**

Thermal decomposition may produce carbon monoxide, carbon dioxide, and nitrogen oxides.

---

**SECTION 6: SPILL OR LEAK PROCEDURES**

**Steps to be Taken if Material is Released or Spilled:**

Evacuate area.

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

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.

**Waste Disposal Method:**

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 laws.

---

**SECTION 7: PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE**

Wear appropriate NIOSH/MSHA-approved respirator, chemical-resistant

Gloves, safety goggles, other protective clothing.

Use only in a chemical fume hood.

Safety shower and eye bath.

Do not breathe dust.

Do not get in eyes, on skin, on clothing.

Avoid prolonged or repeated exposure.  
Readily absorbed through skin.  
Wash thoroughly after handling.  
Poison.  
Carcinogen. Mutagen.  
Irritant.  
Neurological hazard.  
Possible teratogen.  
Keep tightly closed.  
Store in a cool dry place.  
May cause cancer.  
May cause heritable genetic damage.  
Toxic by inhalation, in contact with skin and if swallowed.  
Irritating to eyes and skin.

**Target Organ(s):**

Nerves.  
Male reproductive system.  
If you feel unwell, seek medical advice (show the label where possible).  
In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
Wear suitable protective clothing, gloves and eye/face.  
Protection.  
Do not breathe dust.

**Label Precautionary Statements:**

Poison.  
Suspected Carcinogens.  
Neurotoxin.

**Regulatory Information:**

This product is subject to SARA Section 313 reporting requirements. The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. AerChem, Inc. Shall not be held liable for any damage resulting from handling or from contact with the above product.

**SECTION 8: TRANSPORT INFORMATION**

DOT regulated: Class 6.1, UN 2074, Acrylamide, Packing Group III, Packing Instruction 619  
DOT pictogram: 6 Poison Sticker