

Acrylamide-1-¹³C

Section 1. Chemical product and company identifications

Product code: C-3277

Chemical formula: C₂¹³CH₅NO

CAS: 287399-24-0

CAS (unlabelled): 79-06-1

Synonyms: Acrylic Acid Amide, 2-Propenamamide

Supplier / Manufacturer:

C/D/N Isotopes Inc.

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In case of emergency:

TOXYSKAN HOTLINE: 1-855-780-0599

Section 2. Hazards identifications

GHS (Globally Harmonized System of Classification and Labelling of Chemicals):

GHS Classification:

- Acute toxicity, Oral (Category 3)
- Acute toxicity, Dermal (Category 3)
- Acute toxicity, Inhalation (Category 4)
- Skin irritation (Category 2)
- Eye irritation (Category 2A)
- Skin sensitisation (Category 1)
- Germ cell mutagenicity (Category 1B)
- Carcinogenicity (Category 1B)
- Reproductive toxicity (Category 2)
- Specific target organ toxicity - repeated exposure, Oral (Category 1), Peripheral nervous system

GHS Label elements:

- Pictograms:   
- Signal word: Danger

Hazards statement:

- H301 + H311 Toxic if swallowed or 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.
- H361 Suspected of damaging fertility or the unborn child.
- H372 Causes damage to organs through prolonged or repeated exposure.

Precautionary statement:

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P260 Do not breathe dust.
- P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray.
- P264 Wash skin thoroughly after handling.
- P270 Do not eat, drink or smoke when using this product
- P271 Use only outdoors or in a well-ventilated area.
- P272 Contaminated work clothing should not be allowed out of the workplace.
- P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.
- P301 + P310 IF SWALLOWED: Immediately call a POISON CENTER/ doctor.
- P302 + P352 IF ON SKIN: Wash with plenty of soap and water.
- P304 + P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.

- 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
- P316 Get emergency medical help immediately.
- P330 Rinse mouth.
- P333 + P313 IF SKIN irritation or rash occurs: Get medical advice/attention.
- P337 + P313 IF eye irritation persists: Get medical advice/attention.
- P361 Remove/Take off immediately all contaminated clothing.
- P362 + P364 Take off contaminated clothing and wash it before reuse.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

Section 3. Composition and information on ingredients

| <u>Name</u> | <u>CAS</u> | <u>Concentration %</u> |
|-------------------------------|-------------------|-------------------------------|
| Acrylamide-1- ¹³ C | 287399-24-0 | > 98 |

Section 4. First aid measures

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

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

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

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

General advice: Consult a physician. Show this safety data sheet to the doctor in attendance. Move out of dangerous area.

Indication of immediate medical attention and special treatment needed, if necessary: No data available.

Most important symptoms and effects, both acute and delayed: Redness.

Section 5. Firefighting measures

Flammability of the product: Combustible at high temperature.

Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.

Firefighting media and instructions: Use water spray, alcohol-resistant foam, dry chemical or carbon dioxide.

Special protective equipment for firefighters: Wear self-contained breathing apparatus for firefighting if necessary.

Section 6. Accidental release measures

Personal precautions: Use personal protective equipment. Avoid dust formation. Ensure adequate ventilation. Avoid breathing dust.

Environmental precautions: Do not let product enter drains. Discharge into the environment must be avoided.

Methods for cleaning up: Pick up and arrange disposal without creating dust. Keep in suitable, closed containers for disposal.

Section 7. Handling and storage

Handling: Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation.

Storage: Store at room temperature. Adequate ventilation. Protect from heat and light. Protect from polymerization initiators.

Section 8. Exposure Controls, Personal Protections

Engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

Eyes: Safety glasses with side-shields conforming to NIOSH (US) or EN 166 (EU).

Respiratory: 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).

Hands: Handle with gloves. Dispose of contaminated gloves after use in accordance with applicable laws and good laboratory practices. Wash and dry hands.

Skin/body: Impervious clothing. The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Section 9. Physical and chemical properties (unlabelled)

Molecular weight: 71.08 g/mol
Physical status: Solid
Color: White to off-white
Odour: No data available
Density: No data available
Melting point: 84 - 85 °C (183 - 185 °F)
Boiling point: 125 °C (257 °F) at 33 hPa (25 mmHg)
Vapour pressure: 0.09 hPa (0.07 mmHg) at 25 °C (77 °F)
Vapour density: 2.45 (Air = 1)
Partition coefficient (octanol/water): log Pow: -0.67
Water solubility: Soluble
Lower explosion limit: No data available
Upper explosion limit: No data available
Auto-ignition temperature: 424 °C (795 °F)
Flash point: 138 °C (280 °F)

Section 10. Stability and reactivity

Stability and reactivity: Stable under recommended storage conditions.
Incompatibility: Strong oxidizing agents, free radical initiators.
Products of combustion: Hazardous decomposition products formed under fire conditions: Carbon oxides, nitrogen oxides.
Reactivity conditions: No data available.

Section 11. Toxicological information (unlabelled)

Toxicological data: Acrylamide

Information on ingredients:

| Name | CAS | LD₅₀ | LC₅₀ |
|-------------|------------|--|--|
| Acrylamide | 79-06-1 | Oral - Rat - 124 mg/kg Dermal - Rat - 400 mg/kg | Inhalation - Rat - 4 h - > 1,500 mg/m ³ |

Potential acute effects

- **Eyes:** Causes serious eye irritation.
- **Skin:** Toxic in contact with skin. Causes skin irritation. May cause an allergic skin reaction.
- **Inhalation:** Harmful if inhaled.
- **Ingestion:** Toxic if swallowed.

Potential chronic effects

- **Carcinogenic effects:** 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. Possible human carcinogen. IARC: 2A - Group 2A: Probably carcinogenic to humans (Acrylamide). ACGIH: No component of this product present at levels greater than or equal to 0.1% is identified as a carcinogen or potential carcinogen by ACGIH.
- **Mutagenic effects:** May alter genetic material. In vivo tests showed mutagenic effects.
- **Teratogenic effects:** Suspected of damaging the unborn child. Suspected human reproductive toxicant.
- **Medical conditions aggravated by overexposure:** Causes damage to organs through prolonged or repeated exposure.

Section 12. Ecological information

Ecological data:

| Name | Results | Species | Period |
|-------------|-------------------------------|--------------------------------------|---------------|
| Acrylamide | 90 mg/l LC50 160 mg/l EC50 | Pimephales promelas Daphnia magna | 96 h 48 h |

Effects on environment: An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Mobility: No data available.

Environmental precautions: No data available

Persistence and degradability: Result: 100 % - Readily biodegradable. Method: OECD Test Guideline 301D.

Bioaccumulative potential: Oncorhynchus mykiss - 72 h - 0.71 mg/l. Bioconcentration factor (BCF): 1.65.

Section 13. Disposal considerations

Waste disposal: Contact a licensed professional waste disposal service to dispose of this material.

Section 14. Transportation information

Classification DOT/IMDG/IATA label:

Shipping name: Acrylamide, solid

UN number: UN2074

Class: 6.1

Packaging group: III

Additional information: None

Section 15. Regulatory information

UNITED STATES: NFPA classification



Health: 3
Flammable: 1
Reactivity: 0
Special conditions: None

Legend: 4: Severe, 3: High, 2: Moderate, 1: Slightly, 0: Not hazardous

U.S. Federal regulations:

California proposition 65 requirements : Listed

SARA section 313 (specific toxic chemical listings) : Listed

CERCLA reportable quantity : Listed

Sections 302-304 reportable quantity : Listed

Community Right-to-Know (Sections 311 and 312) : Listed

Section 16. Additional information

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Elaborated by: Toxyscan Inc., 1-866-780-0599

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This safety data sheet has been prepared in accordance with the OSHA (USA), WHMIS (Canada) / GHS classification rules in effect at the time of writing.