

## Acrylonitrile-d<sub>3</sub> (stabilized with hydroquinone)

### Section 1. Chemical product and company identifications

**Product code:** D-1455

**Chemical formula:** C<sub>3</sub>D<sub>3</sub>N

**CAS:** 53807-26-4

**CAS (unlabelled):** 107-13-1

**Synonyms:** Vinyl Cyanide, Propenenitrile

**Supplier / Manufacturer:**

**C/D/N Isotopes Inc.**

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Website: www.cdnisotopes.com

**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:**

- Flammable liquids (Category 2)
- Acute toxicity, Oral (Category 3)
- Acute toxicity, Inhalation (Category 3)
- Acute toxicity, Dermal (Category 3)
- Skin irritation (Category 2)
- Serious eye damage (Category 1)
- Skin sensitization (Category 1)
- Carcinogenicity (Category 1B)
- Reproductive toxicity (Category 2)
- Specific target organ toxicity - single exposure (Category 3), Respiratory system

**GHS Label elements:**

- Pictograms:     
- Signal word: Danger

**Hazards statement:**

- H225 Highly flammable liquid and vapour.
- H301 + H311 + H331 Toxic if swallowed, in contact with skin or inhaled.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H335 May cause respiratory irritation.
- H350 May cause cancer.
- H361 Suspected of damaging fertility or the unborn child.

**Precautionary statement:**

- P201 Obtain special instructions before use.
- P202 Do not handle until all safety precautions have been read and understood.
- P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- P233 Keep container tightly closed.
- P240 Ground and bond container and receiving equipment.
- P241 Use explosion-proof electrical/ ventilating/ lighting equipment.
- P242 Use non-sparking tools.
- P243 Take action to prevent static discharges.
- P261 Avoid breathing mist or vapours.
- 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 + P330 IF SWALLOWED: Immediately call a POISON CENTER/ doctor. Rinse mouth.
- P303 + P361 + P353 IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water.
- P304 + P340 + P311 IF INHALED: Remove person to fresh air and keep comfortable for breathing. Call a POISON CENTER/ doctor.
- P305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER/ doctor.
- P308 + P313 IF exposed or concerned: Get medical advice/ attention.
- P333 + P313 If skin irritation or rash occurs: Get medical advice/ attention.
- P361 + P364 Take off immediately all contaminated clothing and wash it before reuse.
- P370 + P378 In case of fire: Use dry sand, dry chemical or alcohol-resistant foam to extinguish.
- P403 + P233 Store in a well-ventilated place. Keep container tightly closed.
- P403 + P235 Store in a well-ventilated place. Keep cool.
- P405 Store locked up.
- P501 Dispose of contents/ container to an approved waste disposal plant.

### **Section 3. Composition and information on ingredients**

<b><u>Name</u></b>	<b><u>CAS</u></b>	<b><u>Concentration %</u></b>
Acrylonitrile-d <sub>3</sub>	53807-26-4	98-100%

### **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:** May cause sensitization in susceptible persons. Treat symptomatically.

**Most important symptoms and effects, both acute and delayed:** Coughing and/ or wheezing. Difficulty in breathing. Burning sensation. Itching. Rashes. Hives.

### **Section 5. Firefighting measures**

**Flammability of the product:** Flammable in the presence of a source of ignition when the temperature is above the flash point. Keep away from heat/sparks/open flame/hot surface. No smoking.

**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 breathing vapours, mist or gas. Ensure adequate ventilation. Remove all sources of ignition.

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

**Methods for cleaning up:** Soak up with inert absorbent material and dispose of as hazardous waste. Keep in suitable, closed containers for disposal.

### **Section 7. Handling and storage**

**Handling:** Avoid contact with skin and eyes. Avoid inhalation of vapour or mist. Provide appropriate exhaust ventilation. Keep away from sources of ignition - No smoking.

**Storage:** STORE REFRIGERATED. Adequate ventilation. Protect from heat and ignition sources. Protect from moisture.

## **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:** 53.06 g/mol

**Physical status:** Liquid

**Color:** Colourless to pale yellow

**Odour:** No data available

**Density:** 0.806 g/cm<sup>3</sup>

**Melting point:** -83 °C (-117 °F)

**Boiling point:** 77 °C (171 °F)

**Vapour pressure:** 115 hPa (86 mmHg) at 20 °C (68 °F)

**Vapour density:** 1.83 (Air = 1)

**Partition coefficient (octanol/water):** log Pow: 0.25

**Water solubility:** 75 g/L

**Lower explosion limit:** 3 Vol%

**Upper explosion limit:** 17 Vol%

**Auto-ignition temperature:** 480 °C (896 °F)

**Flash point:** -5 °C (23 °F)

## **Section 10. Stability and reactivity**

**Stability and reactivity:** Stable under recommended storage conditions.

**Incompatibility:** Strong oxidizing/ reducing agents, strong acids/ bases.

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

**Reactivity conditions:** Heat, flames and sparks.

## **Section 11. Toxicological information (unlabelled)**

**Toxicological data:** Acrylonitrile

### **Information on ingredients:**

<b>Name</b>	<b>CAS</b>	<b>LD<sub>50</sub></b>	<b>LC<sub>50</sub></b>
Acrylonitrile	107-13-1	Oral - Rat - 78 mg/kg Dermal - Rabbit - 63 mg/kg	Inhalation - Rat - 4 h - 333 ppm

### **Potential acute effects**

- **Eyes:** Causes serious eye damage.
- **Skin:** Toxic if absorbed through skin. Causes skin irritation. May cause an allergic skin reaction.
- **Inhalation:** Toxic if inhaled. May cause respiratory tract irritation.
- **Ingestion:** Toxic if swallowed.

### **Potential chronic effects**

- **Carcinogenic effects:** This product is or contains a component that has been reported to be possibly carcinogenic based on its IARC, OSHA, ACGIH, NTP, or EPA classification. Possible human carcinogen. IARC: 2B - Group 2B: Possibly carcinogenic to humans (Acrylonitrile).
- **Mutagenic effects:** No data available.
- **Teratogenic effects:** Suspected human reproductive toxicant.
- **Medical conditions aggravated by overexposure:** No data available.

## **Section 12. Ecological information**

### **Ecological data:**

<b><u>Name</u></b>	<b><u>Results</u></b>	<b><u>Species</u></b>	<b><u>Period</u></b>
Acrylonitrile	5.1 mg/l LC50	Oryzias latipes	96 h
	2.5 mg/l EC50	Daphnia magna	48 h
	10 mg/l EC50	Pseudokirchneriella subcapitata	72 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:** Aerobic. Result: 100 % - Biodegradable. Method: OECD Test guideline 302C.

**Bioaccumulative potential:** Lepomis macrochirus - 14 d - 9.94 µg/l. Bioconcentration factor (BCF): 48.

## **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:** Acrylonitrile, stabilized

**UN number:** UN1093

**Class:** 3 (6.1)

**Packaging group:** I

**Additional information:** None

## **Section 15. Regulatory information**

### **UNITED STATES: NFPA classification**



Health: 4  
Flammable: 3  
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**

**Date of issue:** September 25<sup>th</sup>, 2025

**Version:** 4

**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.*