



# Safety Data Sheet

Version 7.1  
Revision Date: 09/04/2020

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product name: **Acrylamide-2,3,3-d<sub>3</sub>**  
 Product abbreviation: D3AMD  
 Product use: For laboratory research purposes.  
 Supplier / Manufacturer: Polymer Source, Inc.  
 Address: 124 Avro street, Dorval (Montreal), Quebec H9P 2X8, Canada  
 Telephone: (+1) 514-421-5517  
 Toll free: 1-866-422-9842  
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 E-mail: [info@polymersource.com](mailto:info@polymersource.com)

## 2. HAZARDS IDENTIFICATION

Emergency overview: Target organs: Nerves, kidney.  
 WHMIS classification: D1B. Toxic material causing immediate and serious toxic effects. Toxic by ingestion.  
 D2A. Very toxic material causing other toxic effects. Toxic by inhalation.  
 D2B. Toxic material causing other toxic effects. Teratogen. Carcinogen. Respiratory sensitizer. Moderate skin irritant. Moderate eye irritant. Mutagen.  
 GHS classification: Acute toxicity, Oral (Category 3).  
 Acute toxicity, Inhalation (Category 4).  
 Acute toxicity, Dermal (Category 4).  
 Skin irritation (Category 2).  
 Eye irritation (Category 2A).  
 Respiratory sensitisation (Category 1).  
 Germ cell mutagenicity (Category 1B).  
 Carcinogenicity (Category 1B).  
 Reproductive toxicity (Category 2).

GHS Label elements, including precautionary statements:

Pictogram:



Signal word:

Danger

Hazard statements:	H301. Toxic if swallowed.
	H312 + H332. Harmful in contact with skin or if inhaled.
	H315. Causes skin irritation.
	H319. Causes serious eye irritation.
	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.
Precautionary statements:	P201. Obtain special instructions before use.
	P261. Avoid breathing dust, fume, gas, mist, vapours, spray.
	P280. Wear protective gloves and protective clothing.
	P301 + P310. <u>If swallowed</u> : Immediately call a Poison Center or doctor/physician.
	P305 + P351 + P338. <u>If in eyes</u> : Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
	P308 + P313. <u>If exposed or concerned</u> : Get medical advice / attention.
HMIS classification:	Health hazard: 2
	Chronic health hazard: *
	Flammability: 1
	Physical hazards: 0
Potential health effects:	Inhalation: Toxic if inhaled. Causes respiratory tract irritation.
	Skin: Causes skin irritation.
	Eyes: Causes eye irritation.
	Ingestion: Toxic if swallowed.

### 3. COMPOSITION / INFORMATION ON INGREDIENTS

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Formula:	Acrylamide-d <sub>3</sub> :	C <sub>3</sub> H <sub>2</sub> D <sub>3</sub> NO
Molecular weight:		74.10 g/mol
Concentration:		≥ 99 %
CAS registry number:	Acrylamide-2,3,3-d <sub>3</sub> :	122775-19-3
Index number:		616-003-00-0

#### **4. FIRST AID MEASURES**

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

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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 firefighting if necessary.
Hazardous combustion products:	Hazardous decomposition products formed under fire conditions: Carbon oxides, Nitrogen oxides.
Explosion data:	Sensitivity to mechanical impact: no data available Sensitivity to static discharge: no data available

#### **6. ACCIDENTAL RELEASE MEASURES**

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Personal precautions:	Wear respiratory protection. Avoid dust formation. Avoid breathing dust, vapours, 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.
Methods and materials for containment and cleaning up:	Pick up and arrange disposal without creating dust. Sweep up and shovel. Keep in suitable, closed containers for disposal.

#### **7. HANDLING AND STORAGE**

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Precautions for safe handling:	Avoid contact with skin and eyes. Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed.
Conditions for safe storage:	Keep container tightly closed in a dry and well-ventilated place. Store under inert gas. Hygroscopic.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Components with workplace control parameters:

<i>Components</i>	<i>Value</i>	<i>Control parameters</i>	<i>Basis</i>	<i>Remarks</i>
Acrylamide-2,3,3-d <sub>3</sub> (CAS-No.: 122775-19-3)	TWA	0.030000 mg/m <sup>3</sup>	Canada. Alberta, Occupational Health and Safety Code (table 2: OEL)	Substance may be readily absorbed through intact skin.
Acrylamide-2,3,3-d <sub>3</sub> (CAS-No.: 122775-19-3)	TWAEV	0.030000 ppm	Québec. Regulation Respecting Occupational Health and Safety, Schedule 1, Part 1: Permissible exposure values for airborne contaminants.	A substance to which exposure must be reduced to a minimum in accordance with section 42. Skin (percutaneous). Carcinogenic effect suspected in humans.
	TWA	0.030000 mg/m <sup>3</sup>	Canada. British Columbia OEL.	IARC '2A' applies to substances deemed probably carcinogenic to humans on the basis of limited evidence of carcinogenicity in humans. Contributes significantly to the overall exposure by the skin route. Vapour and aerosol.
	TWA	0.030000 mg/m <sup>3</sup>	USA. ACGIH Threshold Limit Values (TLV).	

Personal protective equipment:

- Respiratory protection: Respiratory protection is not required. Where protection from nuisance levels of dusts are desired, use type N100 (US) or type P3 (EN 143) dust masks. 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.
  - Full contact: Material: Nitrile rubber.  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M).
  - Splash contact: Material: Nitrile rubber.  
Minimum layer thickness: 0.11 mm  
Break through time: 480 min  
Material tested: Dermatril® (KCL 740 / Aldrich Z677272, Size M)

Data source: KCL GmbH, D-36124 Eichenzell  
Phone +49 (0)6659 87300, E-mail: sales@kcl.de  
Test method: EN374

If used in solution, or mixed with other substances, and under conditions which differ from EN 374, contact the supplier of the CE approved gloves. This recommendation is advisory only and must be evaluated by an industrialhygienist and safety officer familiar with the specific situation of anticipated use by our customers. It should not be construed as offering an approval for any specific use scenario.

- 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.
- Specific engineering controls: Use mechanical exhaust or laboratory fumehood to avoid exposure.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

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Appearance:	Form:	Crystalline solid
	Colour:	White
Safety data:	pH:	5.2 - 6.0 at 500 g/l
	Melting point / Freezing point:	m.p.(lit.): 82–86 °C (180–187 °F)
	Boiling point:	b.p.(lit.): 125 °C (257 °F) at 33.3 hPa (25.0 mmHg)
	Flash point:	138 °C (280 °F) – closed cup
	Ignition temperature:	424 °C (795 °F)
	Auto-ignition temperature:	no data available
	Lower explosion limit:	no data available
	Upper explosion limit:	no data available
	Vapour pressure:	no data available
	Density:	no data available
	Water solubility:	ca. 200 g/L at 20 °C (68 °F)
	Partition coefficient: n-octanol/water:	log Pow: -0.67
	Relative vapour density:	no data available
	Odour:	no data available
	Odour threshold:	no data available
	Evaporation rate:	no data available

## 10. STABILITY AND REACTIVITY

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Chemical stability:	Stable under recommended storage conditions.
Radioactivity:	Stable isotope compound. Not radioactive.
Possibility of hazardous reactions:	no data available
Conditions to avoid:	no data available
Materials to avoid:	no data available
Hazardous decomposition products:	Hazardous decomposition products formed under fire conditions: Carbon oxides (CO <sub>x</sub> ), Nitrogen oxides (NO <sub>x</sub> ). Other decomposition products: no data available.

## 11. TOXICOLOGICAL INFORMATION

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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.		
Respiratory or skin sensitization:	May cause sensitization by inhalation.	
Germ cell mutagenicity:	In vivo tests showed mutagenic effects.	
Carcinogenicity:	Possible human carcinogen.	
	IARC: Group 2A:	Probably carcinogenic to humans (Acrylamide-2,3,3-d3).
Reproductive toxicity:	no data available	
Teratogenicity:	no data available. Suspected human reproductive toxicant.	
Specific target organ toxicity:	Single exposure (Globally Harmonized System):	no data available
	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:	Causes skin irritation.
	Eyes:	Causes eye irritation.
Synergistic effects:	no data available	
Additional information:	RTECS:	not available

## 12. ECOLOGICAL INFORMATION

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

## 13. DISPOSAL CONSIDERATIONS

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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

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DOT (US):	UN number: 2074 Class: 6.1 Packing group: III Proper shipping name: Acrylamide, solid Reportable Quantity (RQ): 5000 lbs Marine pollutant: No Poison Inhalation Hazard: No
IMDG:	UN number: 2074 Class: 6.1 Packing group: III EMS-No: F-A, S-A Proper shipping name: Acrylamide, solid Marine pollutant: No
IATA:	UN number: 2074 Class: 6.1 Packing group: III Proper shipping name: Acrylamide, solid

## 15. REGULATORY INFORMATION

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WHMIS classification:	D1B.	Toxic material causing immediate and serious toxic effects. Toxic by ingestion
	D2A.	Very toxic material causing other toxic effects. Toxic by inhalation.
	D2B.	Toxic material causing other toxic effects. Teratogen. Carcinogen. Respiratory sensitizer. Moderate skin irritant. Moderate eye irritant. Mutagen.

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

## **16. OTHER INFORMATION**

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Date of the latest revision: 9 April 2020

Further information: 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. Polymer Source, Inc. shall not be held liable for any damage resulting from handling or from contact with the above product. See [www.polymersource.ca](http://www.polymersource.ca) for additional terms and conditions of sale.