

# CRM-DA-h

## Safety Data Sheet

according to the Hazard Communication Standard (CFR29 1910.1200) HazCom 2012 and the Hazardous Products Regulations (HPR) WHMIS 2015

Issue date: 2022-07-20

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Version: 1.0

### SECTION 1: Identification

#### 1.1. Product identifier

Product form : Mixture  
Product name : CRM-DA-h

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Certified Calibration Solution for Domoic Acid, for laboratory use only

#### 1.3. Details of the supplier of the safety data sheet

National Research Council Canada  
1411 Oxford Street  
Halifax, Nova Scotia, Canada B3H 3Z1  
T 1-902-426-8281



National Research  
Council Canada

Conseil national de  
recherches Canada

#### 1.4. Emergency telephone number

Emergency number : CANUTEC 1-613-996-6666

### SECTION 2: Hazards identification

#### 2.1. Classification of the substance or mixture

##### GHS classification

Flammable Liquid 3

#### 2.2. Label elements

##### GHS labelling

Hazard pictograms (GHS) :



GHS02

Signal word (GHS) :

Warning

Hazard statements (GHS) :

Flammable liquid and vapour.

Precautionary statements (GHS) :

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Wear protective gloves/protective clothing/eye protection/face protection. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Store in a well-ventilated place. Keep cool. Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

#### 2.3. Other hazards

No additional information available

#### 2.4. Unknown acute toxicity

Not applicable

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### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Not applicable

#### 3.2. Mixtures

Name	Product identifier	% (by weight)
Water	(CAS-No.) 7732-18-5	96.02
Acetonitrile	(CAS-No.) 75-05-8	3.97
Domoic acid (DA)	(CAS-No.) 14277-97-5	0.0098

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

- First-aid measures after inhalation : If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical advice/attention if you feel unwell.
- First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash clothing before re-using. Get medical attention if irritation develops and persists.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.
- First-aid measures after ingestion : Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Get medical advice/attention if you feel unwell.

#### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms/effects after inhalation : May cause irritation to the respiratory tract.
- Symptoms/effects after skin contact : May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
- Symptoms/effects after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
- Symptoms/effects after ingestion : May be harmful if swallowed. May cause stomach distress, nausea or vomiting. If sufficient quantities are ingested, domoic acid may cause nausea, headache, vomiting, abdominal cramps and may be fatal.
- Other Symptoms : Neurological symptoms caused by domoic acid include confusion, memory loss and disorientation. Chronic exposure to domoic acid may cause damage to the brain and central nervous system, delirium, convulsions, paralysis and coma.

#### 4.3. Indication of any immediate medical attention and special treatment needed

Symptoms may be delayed. In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

### SECTION 5: Firefighting measures

#### 5.1. Extinguishing media

- Suitable extinguishing media : Use extinguishing media appropriate for surrounding fire.
- Unsuitable extinguishing media : Do not use water jet.

#### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Flammable liquid and vapour. Products of combustion may include, and are not limited to: oxides of carbon.
- Explosion hazard : May form flammable/explosive vapour-air mixture.

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### 5.3. Advice for firefighters

- Firefighting instructions : Move containers away from the fire area if this can be done without risk. Cool closed containers exposed to fire with water spray.
- Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear) and respiratory protection (SCBA).

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

- General measures : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. Use special care to avoid static electric charges. Remove all sources of ignition.

### 6.2. Methods and material for containment and cleaning up

- For containment : Absorb and/or contain spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Do not flush into surface water or sewer system. Wear recommended personal protective equipment.
- Methods for cleaning up : Sweep or shovel spills into appropriate container for disposal. Provide ventilation.

### 6.3. Reference to other sections

For further information refer to section 8: "Exposure controls/personal protection".

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Additional hazards when processed : Handle empty containers with care because residual vapours are flammable.
- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Take precautionary measures against static discharge. Ground/bond container and receiving equipment. Use only non-sparking tools. Use explosion-proof equipment. Avoid contact with skin and eyes. Avoid breathing dust/fume/gas/mist/vapours/spray. Do not swallow. Handle and open container with care. When using do not eat, drink or smoke.
- Hygiene measures : Wash contaminated clothing before reuse. Always wash hands after handling the product.

### 7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Proper grounding procedures to avoid static electricity should be followed.
- Storage conditions : Keep out of the reach of children. Keep container tightly closed. Store in a dry, cool and well-ventilated place.
- Storage temperature : 4 °C / 39.2 °F.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

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Water (7732-18-5)	
ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

Domoic acid (14277-97-5)	
ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

Acetonitrile (75-05-8)		
ACGIH	ACGIH TWA (ppm)	20 ppm
OSHA	OSHA PEL (TWA) (mg/m <sup>3</sup> )	70 mg/m <sup>3</sup>
OSHA	OSHA PEL (TWA) (ppm)	40 ppm
IDLH	US IDLH (ppm)	500 ppm
NIOSH	NIOSH REL (TWA) (mg/m <sup>3</sup> )	34 mg/m <sup>3</sup>
NIOSH	NIOSH REL (TWA) (ppm)	20 ppm

### 8.2. Exposure controls

Appropriate engineering controls	: Ensure good ventilation of the work station.
Hand protection	: Wear suitable gloves.
Eye protection	: Safety glasses or goggles are recommended when using product.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: In case of insufficient ventilation, wear suitable respiratory equipment. Respirator selection must be based on known or anticipated exposure levels, the hazards of the product and the safe working limits of the selected respirator.
Environmental exposure controls	: Avoid release to the environment.
Other information	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, drink or smoke when using this product.

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Appearance	: Clear Colourless Liquid
Colour	: Colourless
Odour	: Slight ether
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available

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Flash point	: 46 °C (5% acetonitrile/water, v/v)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Flammable liquid and vapour.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.99 g/mL
Solubility	: No data available
Partition coefficient n-octanol/water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
No data available	Viscosity, kinematic : No data available
Viscosity, dynamic	: No data available
Explosive limits	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

No dangerous reactions known under normal conditions of use.

### 10.2. Chemical stability

Stable under normal conditions. May form flammable/explosive vapour-air mixture.

### 10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

### 10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition. Direct sunlight.

### 10.5. Incompatible materials

Strong oxidizers.

### 10.6. Hazardous decomposition products

May include, and are not limited to: oxides of carbon. May release flammable gases.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral)	: Not classified
Acute toxicity (dermal)	: Not classified
Acute toxicity (inhalation)	: Not classified

Water (7732-18-5)	
LD50 oral rat	> 90 mL/kg
LD50 dermal rat	> 90000 mg/kg
LC50 inhalation rat	> 90000 mg/L

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<b>Domoic acid (14277-97-5)</b>	
LD50 intraperitoneal mouse	3.6 mg/kg

<b>Acetonitrile (75-05-8)</b>	
LD50 oral rat	160 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat	26.8 mg/L/4h

Skin corrosion/irritation	: Based on available data, the classification criteria are not met.
Serious eye damage/irritation	: Based on available data, the classification criteria are not met.
Respiratory or skin sensitisation	: Based on available data, the classification criteria are not met.
Germ cell mutagenicity	: Based on available data, the classification criteria are not met.
Carcinogenicity	: Based on available data, the classification criteria are not met.
Reproductive toxicity	: Based on available data, the classification criteria are not met.
STOT-single exposure	: Based on available data, the classification criteria are not met.
STOT-repeated exposure	: Based on available data, the classification criteria are not met.

<b>Acetonitrile (75-05-8)</b>	
NOAEC (inhalation, rat, gas, 90 days)	400 ppm Animal: rat, Guideline: other:

Aspiration hazard	: Based on available data, the classification criteria are not met.
Symptoms/effects after inhalation	: May cause irritation to the respiratory tract.
Symptoms/effects after skin contact	: May cause skin irritation. Repeated exposure may cause skin dryness or cracking.
Symptoms/effects after eye contact	: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.
Symptoms/effects after ingestion	: May be harmful if swallowed. May cause stomach distress, nausea or vomiting. If sufficient quantities are ingested, domoic acid may cause nausea, headache, vomiting, abdominal cramps and may be fatal.
Other Symptoms	: Neurological symptoms caused by domoic acid include confusion, memory loss and disorientation. Chronic exposure to domoic acid may cause damage to the brain and central nervous system, delirium, convulsions, paralysis and coma.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

## SECTION 12: Ecological information

### 12.1. Toxicity

Ecology - general	: May cause long-term adverse effects in the aquatic environment.
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<b>Acetonitrile (75-05-8)</b>	
LC50 - Fish [1]	1600 – 1690 mg/L (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [flow-through])
EC50 - Crustacea [1]	> 1000 mg/L Test organisms (species): <i>Daphnia magna</i>
LC50 - Fish [2]	1000 mg/L (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
LOEC (chronic)	> 960 mg/L Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC (chronic)	960 mg/L Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
NOEC chronic fish	102 mg/L Test organisms (species): <i>Oryzias latipes</i> Duration: '21 d'

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### 12.2. Persistence and degradability

CRM-DA-h	
Persistence and degradability	Not established

### 12.3. Bioaccumulative potential

CRM-DA-h	
Bioaccumulative potential	Not established

  

Acetonitrile (75-05-8)	
Partition coefficient n-octanol/water	-0.34

### 12.4. Mobility in soil

No additional information available

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Waste treatment methods

- Product/Packaging disposal recommendations : Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.
- Additional information : Handle empty containers with care because residual vapours are flammable.

## SECTION 14: Transport information

### Department of Transportation (DOT) and Transportation of Dangerous Goods (TDG)

In accordance with DOT/TDG

- UN-No.(DOT/TDG) : UN1993
- Proper Shipping Name (DOT/TDG) : Flammable liquids, n.o.s. (Acetonitrile Solution)
- Class (DOT/TDG) : 3
- Hazard labels (DOT/TDG) :



- Packing group (DOT/TDG) : III

### Additional information

- Other information : No supplementary information available.
- Special transport precautions : Do not handle until all safety precautions have been read and understood.

## SECTION 15: Regulatory information

### 15.1. Federal regulations

All components of this product are listed, or excluded from listing, on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory, except for:

Domoic acid	CAS-No. 14277-97-5	0.0098%
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All components of this product are listed, or excluded from listing, on the Canadian DSL (Domestic Substances List) and NDSL (Non-Domestic Substances List) inventories except for:

Domoic acid	CAS-No. 14277-97-5	0.0098%
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Acetonitrile (75-05-8)	
Subject to reporting requirements of United States SARA Section 313	
CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1.0 %

### 15.2 US State regulations

No additional information available

### SECTION 16: Other information

Issue date	: 2022-07-20
Revision date	: 2022-07-20
Other information	: None
Version #	: 1.0
Prepared by	: Nexreg Compliance Inc.

#### **DISCLAIMER:**

*The information provided on this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guide for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered as a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other material or in any process, unless specified in the text.*

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