

CRM-DTX2-c

Safety Data Sheet

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

Issue date : 2023-06-22

Revision date : 2023-06-22

Version : 1.0

SECTION 1: Identification

1.1. Identification

Product form : Mixture

Product name : CRM-DTX2-c

1.2. Recommended use and restrictions on use

Use of the substance/mixture : Certified Calibration Solution for Dinophysistoxin-2, for laboratory use only

1.3. Supplier

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: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS classification

Flammable Liquid 2
Acute Toxicity 3 (Oral)
Acute Toxicity 3 (Dermal)
Acute Toxicity 3 (Inhalation:vapour)
Eye Irritant 2A
Reproductive Toxicity 1B
Specific Target Organ Toxicity Single Exposure 1
Specific Target Organ Toxicity Single Exposure 3

2.2. GHS Label elements, including precautionary statements

GHS labelling

Hazard pictograms (GHS)



Signal word (GHS)

: Danger

Hazard statements (GHS)

: Highly flammable liquid and vapour.
Toxic if swallowed, in contact with skin or if inhaled.
Causes serious eye irritation.
May cause drowsiness or dizziness.
May damage fertility or the unborn child.
Causes damage to organs.

Precautionary statements (GHS)

: Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
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.

CRM-DTX2-c

Safety Data Sheet

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

Take precautionary measures against static discharge.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash hands, forearms and face thoroughly after handling.
Do not eat, drink or smoke when using this product.
Use only outdoors or in a well-ventilated area.
Wear protective gloves/protective clothing/eye protection/face protection.
If exposed or concerned: Get medical advice/attention.
If swallowed: Immediately call a poison center or doctor.
Rinse mouth.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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.
Store in a well-ventilated place. Keep cool.
Store locked up.
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 which do not result in classification

No additional information available

2.4. Unknown acute toxicity

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixtures

Name	Chemical name / Synonyms	Product identifier	% by weight
Methanol	Methanol METHYL ALCOHOL / Wood alcohol / Methyl hydroxide / Carbinol / Methyl alcohol	CAS-No.: 67-56-1	99.99
Dinophysistoxin-2	Dinophysistoxin 2	CAS-No.: 139933-46-3	0.00049

SECTION 4: First-aid measures

4.1. Description of first aid measures

First-aid measures general : If exposed or concerned: Get medical advice/attention.
First-aid measures after inhalation : If inhaled and if breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If not breathing, give artificial respiration. Call a POISON CENTER/doctor.
First-aid measures after skin contact : If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Get medical attention if irritation develops and persists.
Wash clothing before re-using.

CRM-DTX2-c

Safety Data Sheet

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

- 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 : IF SWALLOWED: Rinse mouth. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person. Immediately call a POISON CENTER/doctor.

4.2. Most important symptoms and effects (acute and delayed)

- Symptoms/effects after inhalation : Toxic if inhaled. May cause irritation to the respiratory tract. May cause drowsiness or dizziness.
- Symptoms/effects after skin contact : Toxic in contact with skin. May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.
- Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.
- Symptoms/effects after ingestion : Toxic if swallowed. May be fatal or cause blindness if swallowed This material contains methanol, which, when ingested, may cause acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death. May cause stomach distress, nausea or vomiting. Ingestion may cause headache, dizziness, drowsiness, metabolic acidosis, coma, seizures. If ingested in sufficient quantities, dinophysistoxin-2 may cause severe gastrointestinal symptoms. The toxicological properties of dinophysistoxin-2 have not been thoroughly investigated, however, it has been demonstrated to have neurotoxic properties in rats.
- Chronic symptoms : May damage fertility or the unborn child. Causes damage to organs.

4.3. Immediate medical attention and special treatment, if necessary

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

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

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

5.2. Specific hazards arising from the chemical

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

5.3. Special protective equipment and precautions for fire-fighters

- 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.

CRM-DTX2-c

Safety Data Sheet

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

6.2. Environmental precautions

Prevent entry to sewers and public waters.

6.3. Methods and material for containment and cleaning up

- For containment : Stop leak if safe to do so. Remove ignition sources. 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.

6.4. 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 : Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Do not get in eyes, on skin, or on clothing. Do not breathe dust, fume, gas, mist, spray, vapours. Do not swallow. Keep away from sources of ignition - No smoking. Handle and open container with care. When using do not eat, drink or smoke. Wear appropriate PPE (see Section 8). Take precautionary measures against static discharge. Use only non-sparking tools. Use only outdoors or in a well-ventilated area. Use explosion-proof electrical/ventilating/lighting equipment. Ground/bond container and receiving equipment.
- Hygiene measures : Take off immediately all contaminated clothing and wash it 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. Store in a dry, cool and well-ventilated place. Store locked up. Store at -12 °C / +10.4 °F or below.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Dinophysistoxin-2 (139933-46-3)	
ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

Methanol (67-56-1)

USA - ACGIH - Occupational Exposure Limits

ACGIH OEL TWA [ppm]	200 ppm
ACGIH OEL STEL [ppm]	250 ppm

CRM-DTX2-c

Safety Data Sheet

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

Methanol (67-56-1)	
ACGIH chemical category	Skin - potential significant contribution to overall exposure by the cutaneous route
USA - ACGIH - Biological Exposure Indices	
BEI	15 mg/L Parameter: Methanol - Medium: urine - Sampling time: end of shift (background, nonspecific)
USA - OSHA - Occupational Exposure Limits	
OSHA PEL TWA [1]	260 mg/m ³
OSHA PEL TWA [2]	200 ppm
USA - IDLH - Occupational Exposure Limits	
IDLH [ppm]	6000 ppm
USA - NIOSH - Occupational Exposure Limits	
NIOSH REL TWA	260 mg/m ³
NIOSH REL TWA [ppm]	200 ppm
NIOSH REL STEL	325 mg/m ³
NIOSH REL STEL [ppm]	250 ppm
US-NIOSH chemical category	Potential for dermal absorption

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station. Provide readily accessible eye wash stations and safety showers.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:
Wear suitable gloves resistant to chemical penetration. Consult glove manufacturer's product information on material suitability and material thickness.
Eye protection:
Wear eye/face protection
Skin and body protection:
Wear suitable protective clothing

CRM-DTX2-c

Safety Data Sheet

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

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. SDSs cannot provide detailed and complete respiratory protection guidelines. Selection of respiratory protection must be done by a qualified person who has assessed the work 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, colorless liquid
Colour	: Colourless
Odour	: Slight alcohol
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 64.7 °C (148.5 °F) (Methanol)
Flash point	: 11 °C (51.8 °F) (Methanol)
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability	: Highly flammable liquid and vapour
Vapour pressure	: No data available
Relative vapour density at 20 °C / 68 °F	: No data available
Relative density	: No data available
Density	: 0.79 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
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.

CRM-DTX2-c

Safety Data Sheet

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

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. Sources of ignition. Direct sunlight. Incompatible materials.

10.5. Incompatible materials

Moisture, acids, acid chlorides, acid anhydrides, oxidizing agents, alkali metals, reducing agents.

10.6. Hazardous decomposition products

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

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Toxic in contact with skin.
Acute toxicity (inhalation)	: Toxic if inhaled.

CRM-DTX2-c	
ATE CA (oral)	100.01 mg/kg bodyweight
ATE CA (dermal)	300.03 mg/kg bodyweight
ATE CA (vapours)	3 mg/L/4h

Methanol (67-56-1)	
LD50 oral rat	1187 – 2769 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	15840 mg/kg
LC50 inhalation rat	22500 ppm (Exposure time: 8 h)
ATE CA (oral)	100 mg/kg bodyweight
ATE CA (dermal)	300 mg/kg bodyweight
ATE CA (gases)	700 ppmv/4h
ATE CA (vapours)	3 mg/L/4h
ATE CA (dust,mist)	0.5 mg/L/4h

Dinophysistoxin-2 (139933-46-3)	
LD50 intraperitoneal mouse	338 µg/kg

Skin corrosion/irritation	: Not classified.
Serious eye damage/irritation	: Causes serious eye irritation.
Respiratory or skin sensitisation	: Not classified.
Germ cell mutagenicity	: Not classified.

CRM-DTX2-c

Safety Data Sheet

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

Carcinogenicity : Not classified.

Reproductive toxicity : May damage fertility or the unborn child.

Methanol (67-56-1)

NOAEL (animal/male, F0/P)	< 1000 mg/kg bodyweight Animal: mouse, Animal sex: male
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STOT-single exposure : Causes damage to organs. May cause drowsiness or dizziness.

Methanol (67-56-1)

STOT-single exposure	May cause respiratory irritation.
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Methanol (67-56-1)

STOT-single exposure	Causes damage to organs. May cause drowsiness or dizziness.
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STOT-repeated exposure : Not classified.

Aspiration hazard : Not classified.

Symptoms/effects after inhalation : Toxic if inhaled. May cause irritation to the respiratory tract. May cause drowsiness or dizziness.

Symptoms/effects after skin contact : Toxic in contact with skin. May cause skin irritation. Symptoms may include redness, edema, drying, defatting and cracking of the skin.

Symptoms/effects after eye contact : Causes serious eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with marked redness and swelling of the conjunctiva.

Symptoms/effects after ingestion : Toxic if swallowed. May be fatal or cause blindness if swallowed This material contains methanol, which, when ingested, may cause acidosis, ocular toxicity ranging from diminished visual capacity to complete blindness, and death. May cause stomach distress, nausea or vomiting. Ingestion may cause headache, dizziness, drowsiness, metabolic acidosis, coma, seizures. If ingested in sufficient quantities, dinophysistoxin-2 may cause severe gastrointestinal symptoms. The toxicological properties of dinophysistoxin-2 have not been thoroughly investigated, however, it has been demonstrated to have neurotoxic properties in rats.

Chronic symptoms : May damage fertility or the unborn child. Causes damage to organs.

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.

Methanol (67-56-1)

LC50 - Fish [1]	15400 mg/L Test organisms (species): <i>Lepomis macrochirus</i>
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LC50 - Fish [2]	> 100 mg/L (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
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CRM-DTX2-c

Safety Data Sheet

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

Methanol (67-56-1)

NOEC (chronic)	208 mg/L Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'
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12.2. Persistence and degradability

CRM-DTX2-c

Persistence and degradability	Not established
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12.3. Bioaccumulative potential

CRM-DTX2-c

Bioaccumulative potential	Not established
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Methanol (67-56-1)

BCF - Fish [1]	(10 dimensionless)
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Partition coefficient n-octanol/water	-0.77
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12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal 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

14.1. UN number

DOT NA No	: UN1230
UN-No. (TDG)	: UN1230

14.2. UN proper shipping name

Proper Shipping Name (DOT)	: Methanol
Proper Shipping Name (TDG)	: METHANOL

14.3. Transport hazard class(es)

DOT

Transport hazard class(es) (DOT)	: 3 (6.1)
Hazard labels (DOT)	:



TDG

Transport hazard class(es) (TDG)	: 3 (6.1)
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CRM-DTX2-c

Safety Data Sheet

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

Hazard labels (TDG)



14.4. Packing group

Packing group (DOT) : II

Packing group (TDG) : II

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

Special transport precautions : Do not handle until all safety precautions have been read and understood.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

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:

Dinophysistoxin-2	CAS-No. 139933-46-3	0.00049% (by weight)
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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:

Dinophysistoxin-2	CAS-No. 139933-46-3	0.00049% (by weight)
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15.2. International regulations

No additional information available

15.3. US State regulations

No additional information available

SECTION 16: Other information

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

Issue date : 2023-06-22

Revision date : 2023-06-22

Other information : None

Version # : 1.0

Prepared by : Nexreg Compliance Inc.

www.Nexreg.com



Full text of H-statements

Acute Tox. 3 (Dermal)	Acute toxicity (dermal), Category 3
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CRM-DTX2-c

Safety Data Sheet

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

Full text of H-statements	
Acute Tox. 3 (Inhalation:vapour)	Acute toxicity (inhalation:vapour) Category 3
Acute Tox. 3 (Oral)	Acute toxicity (oral), Category 3
Eye Irrit. 2A	Serious eye damage/eye irritation, Category 2A
Flam. Liq. 2	Flammable liquids, Category 2
Repr. 1B	Reproductive toxicity, Category 1B
STOT SE 1	Specific target organ toxicity – Single exposure, Category 1
STOT SE 3	Specific target organ toxicity – Single exposure, Category 3, Narcosis

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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