Safety Data Sheet

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

Date of issue: 2016-06-17 Revision date: 2016-06-17 Version: 1.0

SECTION 1: Identification

Product identifier 1.1.

Product name : CRM-ATX Product code : Not available

Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Certified Calibration Solution for Anatoxin-a, 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

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 4

Acute Toxicity 4 (Oral)

Reproductive Toxicity 1B

Specific Target Organ Toxicity After Single Exposure 1

2.2. **Label elements**

GHS labelling

Hazard pictograms (GHS)



GHS07

Signal word (GHS) : Danger

Hazard statements (GHS) : Combustible liquid. Harmful if swallowed. May damage fertility or the unborn

child. Causes damage to organs.

Precautionary statements (GHS) : Keep away from flames and hot surfaces. - No smoking. Obtain special

instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves/protective clothing/eye protection/ face protection. Do not breathe dust/fume/gas/mist/vapors/spray. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. If exposed or concerned: Get medical advice/attention. If swallowed: Call a poison center/doctor if you feel unwell. Rinse mouth. Store in a well-ventilated place. Keep cool. Store locked up. Dispose of contents/container in accordance with local/regional/national/international regulations.

2.3. Other hazards

No additional information available

2.4. **Unknown acute toxicity (GHS)**

Not applicable



Safety Data Sheet

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

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%
Methyl alcohol	(CAS No) 67-56-1	7.24
Acetic acid	(CAS No) 64-19-7	0.0107
Anatoxin-a (ATX-a)	(CAS No) 64285-06-9	0.0005

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 irritation occurs, flush skin with plenty of water. Get medical attention if

irritation persists.

First-aid measures after eye contact : In case of contact, immediately flush eyes with plenty of water. Remove

contact lenses, if worn. If irritation persists, get medical attention.

First-aid measures after ingestion : If swallowed, do NOT induce vomiting unless directed to do so by medical

personnel. 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/injuries after inhalation : May cause respiratory tract irritation.

Symptoms/injuries after skin contact : May cause skin irritation. Symptoms may include redness, drying, defatting

and cracking of the skin.

Symptoms/injuries after eye contact : May cause eye irritation. Symptoms may include discomfort or pain, excess

blinking and tear production, with possible redness and swelling.

Symptoms/injuries after ingestion : Harmful if swallowed. May cause stomach distress, nausea or vomiting. If

sufficient quantities are ingested, Anatoxin-a (ATX-a) can cause limp paralysis

leading to dyspnea, cyanosis, and cardiac arrhythmia leading to death.

Other symptoms : The toxicological properties of ATX-a are under study.

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

Symptoms may not appear immediately. In case of accident or if you feel unwell, seek medical advice immediately (show the label or SDS where possible).

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Foam, dry powder, carbon dioxide, water spray.

Unsuitable extinguishing media : Do not use a heavy water stream.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible liquid. Products of combustion may include, and are not limited

to: oxides of carbon.

5.3. Advice for firefighters

Protection during firefighting : Keep upwind of fire. Wear full fire fighting turn-out gear (full Bunker gear)

and respiratory protection (SCBA). Cool closed containers exposed to fire with water. Vapors may be heavier than air and may travel along the ground

to a distant ignition source and flash back.



Safety Data Sheet

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

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Eliminate sources of ignition. Use special care to avoid static electric

charges. Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel.

6.2. Methods and material for containment and cleaning up

For containment : Contain and/or absorb spill with inert material (e.g. sand, vermiculite), then

place in a suitable container. Do not flush to sewer or allow to enter waterways. Use appropriate Personal Protective Equipment (PPE).

Methods for cleaning up : Scoop up material and place in a disposal container. Provide ventilation.

6.3. Reference to other sections

See section 8 for further information on protective clothing and equipment and section 13 for advice on waste disposal.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Keep away from sources of ignition - No smoking. Avoid contact with skin

and eyes. Do not breathe dust/fume/gas/mist/vapours/spray. Do not

swallow. Handle and open container with care.

Hygiene measures : Launder contaminated clothing before reuse. Wash hands before eating,

drinking, or smoking. Do not eat, drink or smoke when using this 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 locked up and out of reach of children. Keep container tightly closed

and in a well-ventilated place. Keep cool. Store in the dark in a freezer

(preferably $< -20^{\circ}\text{C} / < -4^{\circ}\text{F}$).

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methyl alcohol (67-56-	1)	
ACGIH	ACGIH TWA (ppm)	200 ppm
ACGIH	ACGIH STEL (ppm)	250 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	260 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	200 ppm
IDLH	US IDLH (ppm)	6000 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	260 mg/m³
NIOSH	NIOSH REL (TWA) (ppm)	200 ppm
NIOSH	NIOSH REL (STEL) (mg/m³)	325 mg/m³
NIOSH	NIOSH REL (STEL) (ppm)	250 ppm
Acetic acid (64-19-7)		
ACGIH	ACGIH TWA (ppm)	10 ppm
ACGIH	ACGIH STEL (ppm)	15 ppm
OSHA	OSHA PEL (TWA) (mg/m³)	25 mg/m ³
OSHA	OSHA PEL (TWA) (ppm)	10 ppm
IDLH	US IDLH (ppm)	50 ppm
NIOSH	NIOSH REL (TWA) (mg/m³)	25 mg/m³

Safety Data Sheet

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

Acetic acid (64-19-7)		
NIOSH	NIOSH REL (TWA) (ppm)	10 ppm
NIOSH	NIOSH REL (STEL) (mg/m³)	37 mg/m³
NIOSH	NIOSH REL (STEL) (ppm)	15 ppm

Anatoxin-a (ATX-a) (64	285-06-9)
ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

8.2. Exposure controls

Appropriate engineering controls : Use ventilation adequate to keep exposures (airborne levels of dust, fume,

vapor, etc.) below recommended exposure limits.

Hand protection : Wear protective gloves.Eye protection : Wear eye/face protection.

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 : Maintain levels below Community environmental protection thresholds.

Other information : Do not eat, smoke or drink where material is handled, processed or stored.

Wash hands carefully before eating or smoking. Handle according to

established industrial hygiene and safety practices.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Clear / Colorless

Colour : Colorless

Odour : Slight alcohol or vinegar

Odour threshold : No data available
pH : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Boiling point : No data available

Flash point : 64 °C (147.2 ° F) (9% methanol/water, v/v)

Relative evaporation rate (butylacetate=1) : No data available

Flammability (solid, gas) : Flammable

Explosive limits : No data available Explosive properties : No data available Oxidising properties : No data available Vapour pressure : No data available Relative density : 0.985 g/mL

Relative vapour density at 20 °C : No data available Solubility : No data available Partition coefficient: n-octanol/water : No data available



Safety Data Sheet

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

Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Viscosity, kinematic	:	No data available
Viscosity, dynamic	:	No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No dangerous reaction known under conditions of normal use.

10.2. Chemical stability

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

10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

10.4. Conditions to avoid

Heat. Incompatible materials. Sources of ignition.

10.5. Incompatible materials

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

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 : Harmful if swallowed.

CRM-ATX			
LD50 oral rat	> 300 but ≤ 2000 mg/kg (Calculated using ATE values)		
LD50 dermal rabbit	> 2000 mg/kg (Calculated using ATE values)		
LC50 inhalation rat	> 20 mg/L/4h (Calculated using ATE values)		
Methyl alcohol (67-56-1)			
LD50 oral rat	6200 mg/kg		
LC50 inhalation rat	22500 ppm/8h		
Acetic acid (64-19-7)			
LD50 oral rat	3310 mg/kg		
LD50 dermal rabbit	1060 mg/kg		
LC50 inhalation rat	11.4 mg/L/4h		
Anatoxin-a (ATX-a) (64285-06-9)			
LD50 intraperitoneal mouse	250 μg/kg		
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	: May damage fertility or the unborn child.		



Safety Data Sheet

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

Specific target organ toxicity (single

exposure)

: Causes damage to organs.

Specific target organ toxicity (repeated

exposure)

Aspiration hazard

: Based on available data, the classification criteria are not met.

: Based on available data, the classification criteria are not met.

Symptoms/injuries after inhalation

: May cause respiratory tract irritation.

Symptoms/injuries after skin contact

: May cause skin irritation. Symptoms may include redness, drying, defatting

and cracking of the skin.

Symptoms/injuries after eye contact

: May cause eye irritation. Symptoms may include discomfort or pain, excess blinking and tear production, with possible redness and swelling.

Symptoms/injuries after ingestion

: Harmful if swallowed. May cause stomach distress, nausea or vomiting. If sufficient quantities are ingested, Anatoxin-a (ATX-a) can cause limp paralysis leading to dyspnea, cyanosis, and cardiac arrhythmia leading to death.

leading to dysphea, cyanosis, and cardiac armythmia leading to

Other symptoms

: The toxicological properties of ATX-a are under study.

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general

: May cause long-term adverse effects in the aquatic environment.

12.2. Persistence and degradability

CRM	-AT	X
-----	-----	---

Persistence and degradability Not established.

12.3. Bioaccumulative potential

CRM-ATX

Bioaccumulative potential Not established.

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

Waste disposal recommendations

: This material must be disposed of in accordance with all local, state, provincial, and federal regulations. The generation of waste should be

avoided or minimized wherever possible.

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 and TDG

Not regulated for transport

Additional information

Other information : No supplementary information available.

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



Safety Data Sheet

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

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.

Anatoxin-a (ATX-a) CAS No 64285-06-9

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.

Anatoxin-a (ATX-a) CAS No 64285-06-9

Methyl alcohol (67-56-1)

Subject to reporting requirements of United States SARA Section 313

SARA Section 313 - Emission

Reporting

1.0 %

15.2. US State regulations

No additional information available

SECTION 16: Other information

Date of issue : 2016-06-17 Revision date : 2016-06-17

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.

This material is for research and experimental applications only. It is not intended for food, drug, household, agricultural, or cosmetic use. Its use must be supervised by technically qualified individuals with experience in the handling of potentially hazardous chemicals. Apart from the solvent in this product (if applicable), the hazardous components present in the solution are at such low concentrations that exact determination of degree of hazard is not warranted and would be misleading. We shall not be held liable for any damage resulting from handling or from contact with the above product.

