

CRM-C1&2-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: 2021-03-15

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Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Product name : CRM-C1&2-c

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

Use of the substance/mixture : Certified Calibration Solution for N-Sulfocarbamoylgonyautoxin-2 and -3, 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

Not classified.

2.2. Label elements

GHS labelling

No labelling applicable

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS)

Not applicable.

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	99.99
N-Sulfocarbamoylgonyautoxin-2 (C1)	(CAS-No.) 80173-30-4*	0.0045
N-Sulfocarbamoylgonyautoxin-3 (C2)	(CAS-No.) 80226-62-6*	0.0013
Acetic acid	(CAS-No.) 64-19-7	0.00012

*CAS No. for free base form

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.

CRM-C1&2-c

Safety Data Sheet

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

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| First-aid measures after skin contact | : If skin irritation occurs: Wash skin with plenty of water. Obtain medical attention if irritation 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, paralytic shellfish toxins cause paresthesia (numbness), paralysis and respiratory arrest. Investigations into the toxicity of N-Sulfocarbamoylgonyautoxin-2 (C1) and N-Sulfocarbamoylgonyautoxin-3 (C2) are in progress. |

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

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|--------------------------------|---|
| Suitable extinguishing media | : Use extinguishing media appropriate for surrounding fire. |
| Unsuitable extinguishing media | : None known |

5.2. Special hazards arising from the substance or mixture

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|-------------|---|
| Fire hazard | : 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). |
|--------------------------------|--|

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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| General measures | : Use personal protection recommended in Section 8. Isolate the hazard area and deny entry to unnecessary and unprotected personnel. |
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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. |

6.3. Reference to other sections

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

CRM-C1&2-c

Safety Data Sheet

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

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : 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

- Storage conditions : Keep out of the reach of children. Store tightly closed in a dry, cool and well-ventilated place. Store at -12 °C / +10.4 °F or below.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Water (7732-18-5)

ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

N-Sulfocarbamoylgonyautoxin-2 (C1) (80173-30-4)

ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

N-Sulfocarbamoylgonyautoxin-3 (C2) (80226-62-6)

ACGIH	Not applicable
OSHA	Not applicable
IDLH	Not applicable
NIOSH	Not applicable

Acetic acid (64-19-7)

ACGIH	ACGIH OEL TWA (ppm)	10 ppm
ACGIH	ACGIH OEL STEL (ppm)	15 ppm
OSHA	OSHA PEL TWA [1] (mg/m ³)	25 mg/m ³
OSHA	OSHA PEL TWA [2] (ppm)	10 ppm
IDLH	US IDLH (ppm)	50 ppm
NIOSH	NIOSH REL TWA (mg/m ³)	25 mg/m ³
NIOSH	NIOSH REL TWA (ppm)	10 ppm
NIOSH	NIOSH REL STEL (mg/m ³)	37 mg/m ³
NIOSH	NIOSH REL STEL (ppm)	15 ppm

8.2. Exposure controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Hand protection : Wear suitable gloves.

CRM-C1&2-c

Safety Data Sheet

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

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 vinegar odour
Odour threshold	: No data available
pH	: 5
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not flammable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.0 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.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

CRM-C1&2-c

Safety Data Sheet

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

10.4. Conditions to avoid

Heat

10.5. Incompatible materials

None known

10.6. Hazardous decomposition products

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

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

N-Sulfocarbamoylgonyautoxin-3 (C2) (80226-62-6)	
LD50 intraperitoneal mouse	2300 µg/kg

Acetic acid (64-19-7)	
LD50 oral rat	3310 mg/kg bodyweight Animal: rat
LD50 dermal rabbit	1060 mg/kg
LC50 inhalation rat	11.4 mg/L/4h

Skin corrosion/irritation	: Based on available data, the classification criteria are not met. pH: 5
Serious eye damage/irritation	: Based on available data, the classification criteria are not met. pH: 5
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.

Acetic acid (64-19-7)	
NOAEL (oral, rat, 90 days)	290 mg/kg bodyweight Animal: rat, Animal sex: male

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, paralytic shellfish toxins cause paresthesia (numbness), paralysis and respiratory arrest. Investigations into the toxicity of N-Sulfocarbamoylgonyautoxin-2 (C1) and N-Sulfocarbamoylgonyautoxin-3 (C2) are in progress.
Other information	: Likely routes of exposure: ingestion, inhalation, skin and eye.

CRM-C1&2-c

Safety Data Sheet

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

SECTION 12: Ecological information

12.1. Toxicity

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

Acetic acid (64-19-7)	
LC50 - Fish [1]	> 1000 mg/L Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)
EC50 - Crustacea [1]	> 1000 mg/L Test organisms (species): <i>Daphnia magna</i>
LC50 - Fish [2]	> 300.82 mg/L Test organisms (species): <i>Oncorhynchus mykiss</i> (previous name: <i>Salmo gairdneri</i>)
EC50 - Crustacea [2]	> 300.82 mg/L Test organisms (species): <i>Daphnia magna</i>

12.2. Persistence and degradability

CRM-C1&2-c	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

CRM-C1&2-c	
Bioaccumulative potential	Not established.

Acetic acid (64-19-7)	
Partition coefficient n-octanol/water	-0.31 (at 20 °C)

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. The generation of waste should be avoided or minimized wherever possible. Recycle empty containers where allowed.

SECTION 14: Transport information

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

In accordance with DOT/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.

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:

N-Sulfocarbamoylgonyautoxin-2 (C1)	CAS-No. 80173-30-4
N-Sulfocarbamoylgonyautoxin-3 (C2)	CAS-No. 80226-62-6

CRM-C1&2-c

Safety Data Sheet

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

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:

N-Sulfocarbamoylgonyautoxin-2 (C1)	CAS-No. 80173-30-4
N-Sulfocarbamoylgonyautoxin-3 (C2)	CAS-No. 80226-62-6

Acetic acid (64-19-7)

CERCLA RQ	5000 lb
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15.2 US State regulations

No additional information available

SECTION 16: Other information

Issue date	: 2021-03-15
Revision date	: 2021-03-15
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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