

CRM-AZA2-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: 2022-12-19

Revision date: 2022-12-19

Version: 1.0

SECTION 1: Identification

1.1. Product identifier

Product form : Mixture
Trade name : CRM-AZA2-c

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

Use of the substance/mixture : Certified Calibration Solution for Azaspiracid-2, 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 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. Label elements

GHS labelling

Hazard pictograms (GHS) :



GHS02

GHS06

GHS07

GHS08

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 the unborn child. Causes damage to organs (central nervous system, optic nerve).

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. 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

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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. Wash contaminated clothing before reuse. 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

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	Product identifier	% By Weight
Methanol	(CAS-No.) 67-56-1	99.999
Azaspiracid-2 (AZA2)	(CAS-No.) 265996-92-7	0.00015

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. If breathing is difficult, give oxygen. 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 contaminated clothing before reuse.
- 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: If swallowed, do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Rinse mouth. Immediately call a POISON CENTER/doctor.

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

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

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- 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 sufficient quantities are ingested, Azaspiracid-2 causes nausea, vomiting, stomach cramps, diarrhea and headache.
- Chronic symptoms : May damage the unborn child. Causes damage to organs (central nervous system, optic nerve).
- Other Symptoms : The toxicological properties of Azaspiracid-2 are under study. Preliminary studies suggest that the toxin is potentially carcinogenic and can act as a tumor promoter, and has been shown to be teratogenic to finfish. Azaspiracid-1 has shown to cause multiple organ damage through long-term exposure in mice. Results of this can be fatty changes in liver tissue, lung edema, and can cause necrosis in parts of the small intestine and lymphoid tissues. Damage to B and T lymphocytes was also observed.

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 a heavy water stream.

5.2. Special hazards arising from the substance or mixture

- 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. 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. Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours.
- 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".

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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 sources of ignition - No smoking. Take precautionary measures against static discharge .Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.
Do not breathe dust, fume, gas, mist, spray, vapours. Do not swallow. Do not get in eyes, on skin, or on clothing. Do not eat, drink or smoke when using this product. Use only outdoors or in a well-ventilated area. Handle and open container with care. Use appropriate personal protection equipment (PPE). Use only non-sparking tools.
- 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 and in a well-ventilated place. Store at -12 °C / +10.4 °F or below. Store locked up.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

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

Azaspiracid-2 (AZA2) (265996-92-7)	
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. Provide readily accessible eye wash stations and safety showers.
- Hand protection : Wear suitable gloves resistant to chemical penetration.

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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	: Avoid release to the environment.
Other information	: Handle in accordance with good industrial hygiene and safety procedures. Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking.

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	: Mild alcohol odour
Odour threshold	: No data available
pH	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 64.7 °C (methanol)
Flash point	: 11 °C (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	: No data available
Relative density	: 0.791 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. May form flammable/explosive vapour-air mixture.

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10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Heat. Sources of ignition. Incompatible materials.

10.5. Incompatible materials

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

ATE CA (oral)	100.001 mg/kg bodyweight
ATE CA (Dermal)	300.003 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)

Azaspiracid-2 (AZA2) (265996-92-7)

LD100 intraperitoneal mouse	110 µg/kg
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Skin corrosion/irritation : Based on available data, the classification criteria are not met.
Serious eye damage/irritation : Causes serious eye irritation.
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 the unborn child.
STOT-single exposure : Causes damage to organs (central nervous system, optic nerve). May cause drowsiness or dizziness.

STOT-repeated exposure : Based on available data, the classification criteria are not met.

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

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

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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 sufficient quantities are ingested, Azaspiracid-2 causes nausea, vomiting, stomach cramps, diarrhea and headache.
Chronic symptoms	: May damage the unborn child. Causes damage to organs (central nervous system, optic nerve).
Other symptoms	: The toxicological properties of Azaspiracid-2 are under study. Preliminary studies suggest that the toxin is potentially carcinogenic and can act as a tumor promoter, and has been shown to be teratogenic to finfish. Azaspiracid-1 has shown to cause multiple organ damage through long-term exposure in mice. Results of this can be fatty changes in liver tissue, lung edema, and can cause necrosis in parts of the small intestine and lymphoid tissues. Damage to B and T lymphocytes was also observed.
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>
LC50 - Fish [2]	> 100 mg/L (Exposure time: 96 h - Species: <i>Pimephales promelas</i> [static])
NOEC (chronic)	208 mg/L Test organisms (species): <i>Daphnia magna</i> Duration: '21 d'

12.2. Persistence and degradability

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Persistence and degradability	Not established

12.3. Bioaccumulative potential

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Bioaccumulative potential	Not established

Methanol (67-56-1)	
BCF - Fish [1]	< 10
Partition coefficient n-octanol/water	-0.77

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.
Additional information	: Handle empty containers with care because residual vapours are flammable.

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SECTION 14: Transport information

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

In accordance with DOT/TDG

UN-No.(DOT/TDG) : UN1230

Proper Shipping Name (DOT/TDG) : Methanol

Class (DOT/TDG) : 3 (6.1)

Hazard labels (DOT/TDG) :



Packing group (DOT/TDG) : II

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:

Methanol	CAS-No. 67-56-1	99.999% by weight
Azaspiracid-2 (AZA2)	CAS-No. 265996-92-7	0.00015% by weight

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:

Azaspiracid-2 (AZA2)	CAS-No. 265996-92-7	< 1%
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Methanol (67-56-1)

Subject to reporting requirements of United States SARA Section 313

CERCLA RQ	5000 lb
SARA Section 313 - Emission Reporting	1 %

15.2 US State regulations

No additional information available

SECTION 16: Other information

Issue date : 2022-12-19

Revision date : 2022-12-19

Other information : None.

Version # : 1.0

Prepared by : Nexreg Compliance Inc.

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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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