

Safety Data Sheet

acc. to OSHA HCS & WHMIS

Printing date 05/01/2018

Reviewed on 09/21/2016

1 Identification

- **Product identifier:** A041212-16A
- **Trade name:** **MC CROSSFIRE ANTISPAT 16OZ**
- **Item number(s):** MC-AS-16-A, A041212-16A
- **MSDS Number:** 414
- **Manufacturer/Supplier:**
USA ADDRESS :

- MICHIGAN ARC PRODUCTS INC
2040 AUSTIN
TROY, MI 48083
PH (248) 740-8066
FAX (248) 740-8067

- CANADIAN ADDRESS :

- MAP CANADA LTD
325 HEALEY RD., UNIT 1
BOLTON, ON L7E 5C1
PH (905) 951-2788
FAX (905) 951-6256

- **Information department:** (905) 951-2788
- **Emergency telephone number:**
ChemTrec (800) 424-9300 / 1-(703)-741-5970
Canada only: CANUTEC (Call collect) (613) 996-6666

2 Hazard(s) identification

- **Classification of the substance or mixture:**



GHS04 Gas cylinder

Gases Under Pressure - Compressed Gas

H280

Contains gas under pressure; may explode if heated.



GHS08 Health hazard

Carcinogenicity – Category 2

H351

Suspected of causing cancer.

Specific Target Organ Toxicity - Repeated Exposure H373
- Category 2

May cause damage to organs through prolonged or repeated exposure.



GHS07

Acute Toxicity (Oral) - Category 4

H302

Harmful if swallowed.

Skin Irritation - Category 2

H315

Causes skin irritation.

Eye Irritation - Category 2A

H319

Causes serious eye irritation.

Specific Target Organ Toxicity - Single Exposure -
Category 3

H335-H336

May cause respiratory irritation. May cause drowsiness or dizziness.

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- **Label elements**
- **GHS label elements**
The product is classified and labeled according to the Globally Harmonized System (GHS).
- **Signal word:** Warning
- **Hazard-determining components of labeling:**
methylene chloride
- **Hazard statements:**
Contains gas under pressure; may explode if heated.
Harmful if swallowed.
Causes skin irritation.
Causes serious eye irritation.
Suspected of causing cancer.
May cause respiratory irritation. May cause drowsiness or dizziness.
May cause damage to organs through prolonged or repeated exposure.
- **Precautionary statements:**
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.
Do not pierce or burn, even after use.
Do not breathe dust/fume/gas/mist/vapours/spray.
Wash 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 on skin: Wash with plenty of soap and water.
IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
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 exposed or concerned: Get medical advice/attention.
Get medical advice/attention if you feel unwell.
If eye irritation persists: Get medical advice/attention.
Take off contaminated clothing and wash it before reuse.
Store in a well-ventilated place.
Store locked up.
Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **NFPA ratings (scale 0 - 4):**



Health = 2
Fire = 0
Reactivity = 1

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

- **Dangerous components:**

75-09-2	methylene chloride	60-100% w/w
124-38-9	carbon dioxide	1-5% w/w

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- **Additional information:**
Exact concentrations and/or compositions are being withheld as trade secrets.

4 First-aid measures

- **After inhalation:**
Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a poison center or doctor/physician if you feel unwell.
- **After skin contact:**
Wash with plenty of soap and water. Take off contaminated clothing and wash it before reuse. If skin irritation occurs: Get medical advice/attention.
- **After eye contact:**
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.
- **After swallowing:** Do not induce vomiting, Immediately call a poison center/ doctor.
- **Most important symptoms and effects, both acute and delayed:**
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed:**
No further relevant information available.

5 Fire-fighting measures

- **Suitable extinguishing agents:**
CO2, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture:** No further relevant information available.
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures:**
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections:**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling**
- **Precautions for safe handling:** Ensure good ventilation/exhaustion at the workplace.
- **Information about protection against explosions and fires:** No special measures required.
- **Storage**
- **Requirements to be met by storerooms and receptacles:**
Observe official regulations on storing packagings with pressurized containers.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** None.

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- **Specific end use(s):** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.

- **Components with limit values that require monitoring at the workplace:**

75-09-2 methylene chloride

EL (Canada)	Long-term value: 25 ppm IARC 2A
EV (Canada)	Long-term value: 175 mg/m ³ , 50 ppm
PEL (USA)	Short-term value: 125 ppm Long-term value: 25 ppm see 29 CFR 1910.1052
REL (USA)	See Pocket Guide App. A
TLV (USA)	Long-term value: 174 mg/m ³ , 50 ppm BEI

124-38-9 carbon dioxide

EL (Canada)	Short-term value: 15000 ppm Long-term value: 5000 ppm
EV (Canada)	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9,000 mg/m ³ , 5,000 ppm
PEL (USA)	Long-term value: 9000 mg/m ³ , 5000 ppm
REL (USA)	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm
TLV (USA)	Short-term value: 54,000 mg/m ³ , 30,000 ppm Long-term value: 9000 mg/m ³ , 5000 ppm

- **Ingredients with biological limit values:**

75-09-2 methylene chloride

BEI (USA)	0.3 mg/L Medium: urine Time: end of shift Parameter: Dichloromethane (semi-quantitative)
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- **Additional information:** The lists that were valid during the creation were used as basis.
- **Personal protective equipment**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
- **Breathing equipment:** Use suitable respiratory protective device in case of insufficient ventilation.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.

- **Material of gloves:** PVA gloves

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· Eye protection: Not required.

9 Physical and chemical properties

· Form:	Liquid Under Pressure
· Color:	Light yellow
· Odor:	Strong Ether-like
· Odor threshold:	Not determined.
· pH-value:	Not determined.
· Change in condition	
Melting point/Melting range:	-96.7 °C
Boiling point/Boiling range:	104 °C
· Flash point:	Not applicable. Not applicable, as aerosol.
· Flammability (solid, gaseous):	Product is not flammable.
· Ignition temperature:	605 °C
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits	
Lower:	13 Vol %
Upper:	22 Vol %
· Vapor pressure at 20 °C:	453 hPa
· Density at 20 °C:	1.056 g/cm ³
· Relative density:	Not determined.
· Vapor density at 20 °C:	2.93 (AIR=1)
· Evaporation rate at 20 °C:	27.5 (BA=1)
· Solubility in / Miscibility with	
Water at 20 °C:	20 g/l
· Partition coefficient (n-octanol/water):	1.25 log POW
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Organic solvents:	90.5 %
VOC content:	0.00 %
	0.0 g/l / 0.00 lb/gl
· Other information	VOC Content: >900 g/kg
	VOC %: 90%
	HAP Content: 90%
	MIR Value: 0.068 g O ₃ /g

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10 Stability and reactivity

- **Thermal decomposition / conditions to be avoided:**
No decomposition if used according to specifications.
- **Possibility of hazardous reactions:** No dangerous reactions known.
- **Conditions to avoid:** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects:**
- **Acute toxicity**

- **LD/LC50 values that are relevant for classification:**

75-09-2 methylene chloride

Oral	LD50	1,600 mg/kg (rat)
Inhalative	LC50/4 h	88 mg/l (rat)

- **Primary irritant effect**
- **on the skin:** Irritant to skin and mucous membranes.
- **on the eye:** Irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

75-09-2	methylene chloride	2A
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- **NTP (National Toxicology Program)**

75-09-2	methylene chloride	R
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12 Ecological information

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.
- **Behavior in environmental systems**
- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.
- **Additional ecological information**
- **General notes:**
Water hazard class 2 (Self-assessment): hazardous for water
Do not allow product to reach ground water, water course or sewage system.
Danger to drinking water if even small quantities leak into the ground.
- **Other adverse effects:** No further relevant information available.

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13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings**
- **Recommendation:**
Place in a sealed container and label as waste. Place in a safe area, and comply with all federal, state, provincial and local regulations for disposal.

14 Transport information

- | | | |
|---|---|---|
| <ul style="list-style-type: none"> · UN-Number · DOT, TDG, IMDG, IATA | UN1950 | |
| <ul style="list-style-type: none"> · UN proper shipping name · DOT+TDG | Aerosols, non-flammable, containing substances in Division 6.1, Packing Group III | |
| <ul style="list-style-type: none"> · IMDG · IATA | AEROSOLS
AEROSOLS, non-flammable, containing substances in Division 6.1, Packing Group III | |
| <ul style="list-style-type: none"> · Transport hazard class(es) · DOT <div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Class · Label · TDG (Transport dangerous goods): <div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Class · Label <hr style="border-top: 1px dashed black;"/> <ul style="list-style-type: none"> · IMDG <div style="display: flex; align-items: center; gap: 10px;">   </div> <ul style="list-style-type: none"> · Class | | <p>2.2</p> <p>2.2, 6.1</p> <p>2 5T Gases
2.2+6.1</p> <p>2.2</p> |

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· Label	2.2/6.1
· IATA	
	
· Class	2.2
· Label	2.2 (6.1)
· Packing group	
· DOT, TDG, IMDG, IATA	Not regulated
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user:	Warning: Gases
· Danger code (Kemler):	-
· EMS Number:	F-D,S-U
· Stowage Code	SW1 Protected from sources of heat. SW22 For AEROSOLS with a maximum capacity of 1 litre: Category A. For AEROSOLS with a capacity above 1 litre: Category B. For WASTE AEROSOLS: Category C, Clear of living quarters.
· Segregation Code	SG69 For AEROSOLS with a maximum capacity of 1 litre: Segregation as for class 9. Stow "separated from" class 1 except for division 1.4. For AEROSOLS with a capacity above 1 litre: Segregation as for the appropriate subdivision of class 2. For WASTE AEROSOLS: Segregation as for the appropriate subdivision of class 2.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code:	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 75 kg On cargo aircraft only: 150 kg
· Remarks:	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· TDG	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· IMDG	
· Limited quantities (LQ)	120 ml
· Excepted quantities (EQ)	Code: E0 Not permitted as Excepted Quantity
· Remarks:	This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.

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- | | |
|--|---|
| <ul style="list-style-type: none"> · IATA · Remarks: | <p>This product may be shipped according to the Limited Quantity Exceptions provided that all Limited Quantity shipping requirements are met.</p> |
| <ul style="list-style-type: none"> · UN "Model Regulation": | <p>UN 1950 AEROSOLS, 2.2 (6.1)</p> |

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

- Section 355 (extremely hazardous substances):

None of the ingredients is listed.

- Section 313 (Specific toxic chemical listings):

75-09-2 | methylene chloride

- TSCA (Toxic Substances Control Act):

All ingredients are listed or exempted

- Proposition 65

- Chemicals known to cause cancer:

75-09-2 | methylene chloride

- Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

- Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

- Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

- Canadian substance listings

- Canadian Domestic Substances List (DSL/NDSL):

All ingredients are listed.

- Canadian Ingredient Disclosure list (limit 0.1%):

75-09-2 | methylene chloride

- Canadian Ingredient Disclosure list (limit 1%):

124-38-9 | carbon dioxide

- GHS label elements

The product is classified and labeled according to the Globally Harmonized System (GHS).

- Hazard pictograms



GHS04 GHS07 GHS08

- Signal word Warning

- Hazard-determining components of labeling:

methylene chloride

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- **Hazard statements**

Contains gas under pressure; may explode if heated.
 Harmful if swallowed.
 Causes skin irritation.
 Causes serious eye irritation.
 Suspected of causing cancer.
 May cause respiratory irritation. May cause drowsiness or dizziness.
 May cause damage to organs through prolonged or repeated exposure.

- **Precautionary statements**

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.
 Do not pierce or burn, even after use.
 Do not breathe dust/fume/gas/mist/vapours/spray.
 Wash 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 on skin: Wash with plenty of soap and water.
 IF INHALED: Call a POISON CENTER/doctor if you feel unwell.
 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 exposed or concerned: Get medical advice/attention.
 Get medical advice/attention if you feel unwell.
 If eye irritation persists: Get medical advice/attention.
 Take off contaminated clothing and wash it before reuse.
 Store in a well-ventilated place.
 Store locked up.
 Protect from sunlight. Do not expose to temperatures exceeding 50 °C/122 °F.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

16 Other information

This MSDS format meets ANSI Z400.1-1998, OSHA 1910.1200 and WHMIS requirements. M.A.P. Canada Ltd. provides the information contained herein in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person using this product. Product use and conditions of use are beyond the control of M.A.P. Canada Ltd.. Warranty of materials is limited to test results of product performance as detailed in certificates of compliance. Interpretation of test results is the responsibility of end-user. No other warranties, expressed or implied, are made. M.A.P. Canada Ltd. is an ISO 9001:2000 registered company.

- **Department issuing SDS:** Product safety department

- **Contact:** Stephen Nowicki

- **Date of preparation / last revision** 05/01/2018 / 1

- **Abbreviations and acronyms:**

IMDG: International Maritime Code for Dangerous Goods
 DOT: US Department of Transportation
 IATA: International Air Transport Association
 EINECS: European Inventory of Existing Commercial Chemical Substances
 ELINCS: European List of Notified Chemical Substances
 CAS: Chemical Abstracts Service (division of the American Chemical Society)
 NFPA: National Fire Protection Association (USA)
 VOC: Volatile Organic Compounds (USA, EU)
 LC50: Lethal concentration, 50 percent
 LD50: Lethal dose, 50 percent