

1. Product and Company Identification

Material name	Deadline® M-Ps™
Version #	01
Issue date	07-16-2015
Chemical description	Red, blue or buff colored pellets with a mild aldehyde
CAS #	Mixture
MSDS Number	305.6
Product use	Molluscicide
Pest Control Products Act (Canada)	WHMIS: 26650
Manufacturer information	AMVAC Chemical Corporation 4100 E Washington Blvd Los Angeles, CA 90023 USA CustServ@Amvac-Chemical.com www.Amvac-Chemical.com AMVAC Chemical Corp 323-264-3910 AMVAC Chemical Corp 323-268-1028 (FAX) CHEMTREC® (Outside USA) +1-703-527-3887 CHEMTREC® (USA+Canada) 800-424-9300 Medical 888-681-4261 Product Use 888-462-6822

2. Hazards Identification

Emergency overview	CAUTION! POISON! Keep out of Reach of Children. Harmful if swallowed. Avoid breathing dust. May cause eye irritation. Avoid prolonged contact with eyes, skin and clothing.
Potential health effects	
Routes of exposure	Eye contact. Inhalation. Ingestion. Skin contact.
Eyes	May cause eye irritation.
Skin	Causes slight skin irritation.
Inhalation	Prolonged inhalation may be harmful.
Ingestion	May cause discomfort if swallowed.
Signs and symptoms	Based on animal toxicity information for metaldehyde, it is anticipated that this material would be harmful upon ingestion and that direct contact may elicit mild eye and skin irritation. Overexposure to metaldehyde may cause excessive salivation, vomiting, nausea, acetoneuria (odor of acetone on breath), convulsions, increased body temperature, depression of medullary respiratory and vasomotor control centers and coma. May be fatal. [Note: Because of the low amounts of metaldehyde in the product, it is unlikely the victim can be exposed to sufficient quantities of metaldehyde to have coma or death induced.] Overexposure may aggravate preexisting conditions associated with the kidney, liver, and brain.
Potential environmental effects	This product may be fatal to dogs, other pests, and wild animals if eaten. May be toxic to water inhabitants. Do not contaminate water bodies.

3. Composition / Information on Ingredients

Hazardous components	CAS #	Percent
Metaldehyde	108-62-3	4
METHYL SALICYLATE	119-36-8	0.1 - 1
Non-hazardous components	CAS #	Percent
Other components	Mixture	96

4. First Aid Measures

First aid procedures

Inhalation

Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a POISON CENTER or doctor/physician if you feel unwell.

Skin contact

Take off contaminated clothing and wash before reuse. Wash off immediately with plenty of water. If skin irritation occurs: Get medical advice/attention. Wash contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Continue rinsing. Remove contact lenses, if present and easy to do. Call a physician or poison control center immediately.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Drink 1 or 2 glasses of water. Do not induce vomiting without advice from poison control center. Have physician determine if patient's condition allows induction of vomiting or evacuation of stomach. Never give anything by mouth to a victim who is unconscious or is having convulsions.

Notes to physician

According to manufacturer of Metaldehyde Technical communication, gastric lavage with a 2.5% solution of sodium bicarbonate-powdered charcoal and prevention of acidosis by sodium bicarbonate may be needed. Administration of Diazepam or Clonidine 20 minutes after ingestion of 1000 mg/kg of Metaldehyde by mice delayed the onset of symptoms and reduced mortality. This is equivalent to 0.6 lb of product ingested for a 10 kg child. Therefore, Diazepam and Clonidine may be appropriate antidotes to reduce the symptomatology of Metaldehyde ingestion. For acute inhalation overexposure, the patient should be monitored as respiratory failure may occur 24 to 48 hours after exposure.

General advice

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. In the case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).

5. Fire Fighting Measures

Flammable properties

Active ingredient has a reported flash point of 97°F. Dusts may form an explosive mixture with air.

Extinguishing media

Suitable extinguishing media

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO₂).

Unsuitable extinguishing media

None known.

Protection of firefighters

Specific hazards arising from the chemical

During fire, gases hazardous to health may be formed.

Protective equipment for firefighters

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Fire fighting equipment/instructions

In the event of fire, cool tanks with water spray. Water runoff can cause environmental damage.

Explosion data

Sensitivity to static discharge

None known.

Sensitivity to mechanical impact

Not applicable.

Hazardous combustion products

Carbon oxides, paraldehyde, acetaldehyde, and other unknown compounds can be formed during the combustion of Metaldehyde.

General fire hazards

May form combustible dust concentrations in air.

6. Accidental Release Measures

Personal precautions

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ventilate closed spaces before entering them. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the MSDS/SDS.

Environmental precautions

Avoid release to the environment. Contact local authorities in case of spillage to drain/aquatic environment. Prevent further leakage or spillage if safe to do so. Do not contaminate water. Avoid discharge into drains, water courses or onto the ground.

Methods for containment

Stop the flow of material, if this is without risk. Collect spillage.

Methods for cleaning up

Ventilate the contaminated area. Wear appropriate protective equipment and clothing during clean-up. Should not be released into the environment. This product is miscible in water. Prevent product from entering drains. Stop the flow of material, if this is without risk, to prevent entry into waterways, sewer, basements or confined areas. Do not allow material to contaminate ground water system. Small Dry Spills: With clean shovel place material into clean, dry container and cover loosely; move containers from spill area. Following product recovery, flush area with water. This material and its container must be disposed of as hazardous waste. For waste disposal, see section 13 of the SDS.

7. Handling and Storage

Handling

Keep out of the reach of children. Keep away from food, drink and animal feedstuffs. Minimize dust generation and accumulation. Avoid breathing dust. Use only outdoors or in a well-ventilated area. Avoid contact with skin. Avoid contact with eyes. Avoid prolonged exposure. Wear appropriate personal protective equipment recommended in section 8. Wash thoroughly after handling. Wash contaminated clothing before reuse. Observe good industrial hygiene practices. Avoid release to the environment. Do not empty into drains.

Storage

Keep container tightly closed. Store in a cool, dry place out of direct sunlight. Store in a well-ventilated place.

8. Exposure Controls / Personal Protection

Occupational exposure limits

US. ACGIH Threshold Limit Values

Material	Type	Value
Deadline® M-Ps™	TWA	0.5 mg/m ³

Canada. Alberta OELs (Occupational Health & Safety Code, Schedule 1, Table 2)

Material	Type	Value
Deadline® M-Ps™	TWA	0.5 mg/m ³

Canada. British Columbia OELs. (Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, as amended)

Material	Type	Value
Deadline® M-Ps™	TWA	0.5 mg/m ³

Canada. Manitoba OELs (Reg. 217/2006, The Workplace Safety And Health Act)

Material	Type	Value
Deadline® M-Ps™	TWA	0.5 mg/m ³

Canada. Ontario OELs. (Control of Exposure to Biological or Chemical Agents)

Material	Type	Value
Deadline® M-Ps™	TWA	0.5 mg/m ³

Canada. Quebec OELs. (Ministry of Labor - Regulation Respecting the Quality of the Work Environment)

Material	Type	Value
Deadline® M-Ps™	TWA	0.5 mg/m ³

Biological limit values

No biological exposure limits noted for the ingredient(s).

Exposure guidelines

Dust exposure limit.

Engineering controls

Not available.

Personal protective equipment

Eye/face protection

Not normally needed.

Skin protection

Wear suitable protective clothing.

Respiratory protection

No personal respiratory protective equipment normally required.

Hand protection

Not normally needed.

9. Physical & Chemical Properties

Appearance

Red, blue or buff colored pellet

Physical state

Solid.

Form

Pellets.

Color

Red, blue or buff.

Odor

Aldehyde odor

Odor threshold	Not available.
pH	Not available.
Vapor pressure	1.90E+00 mm Hg @ 24°C (active ingredient).
Vapor density	6.06 (air = 1).
Boiling point	Not available.
Melting point/Freezing point	Not available.
Solubility (water)	0.2 g/l @ 17°C for active ingredient.
Specific gravity	0.4 - 0.72
Relative density	Not available.
Flash point	Not available.
Flammability limits in air, upper, % by volume	Not available.
Flammability limits in air, lower, % by volume	Not available.
Auto-ignition temperature	Not available.
Evaporation rate	Not available.
Bulk density	24 - 45 lb/ft ³

10. Chemical Stability & Reactivity Information

Chemical stability	Material is stable under normal conditions.
Conditions to avoid	Avoid conditions which create dust. Contact with incompatible materials. Avoid heat, sparks, open flames and other ignition sources.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	Acetaldehyde can be formed by decomposition of Metaldehyde. Decomposition by burning may result in carbon monoxide and other toxic fumes and vapors of unknown composition.
Possibility of hazardous reactions	Hazardous polymerization does not occur.

11. Toxicological Information

Toxicological data

Product	Species	Test Results
Deadline® M-Ps™		
Acute		
Dermal		
LD50	Rabbit	> 5050 mg/kg (EPA Tox Cat IV).
Inhalation		
LC50	Rat	> 2.48 mg/l, 4 hours (EPA Tox Cat IV).
Oral		
LD50	Rat	> 5000 mg/kg (EPA Tox Cat IV).
Components	Species	Test Results
METHYL SALICYLATE (CAS 119-36-8)		
Acute		
Dermal		
LD50	Guinea pig	0.7 ml/kg
Oral		
LD50	Dog	2.1 g/kg
	Guinea pig	1.06 g/kg
	Rabbit	2.8 g/kg
	Rat	0.887 g/kg
Acute effects	Causes mild eye irritation.	

Sensitization

Deadline® M-Ps™

Result: Not a skin sensitizer.

Species: Guinea pig

Chronic effects

Overexposure may aggravate preexisting conditions associated with the kidney, liver, and brain.

Carcinogenicity

Acetaldehyde, a decomposition product of Metaldehyde, has been listed as carcinogenic in the IARC monographs and by the NTP. Acetaldehyde is present at less than 0.01% in the product. None of the components found in appreciable quantities has been found to be carcinogenic by IARC, NTP, or OSHA.

Skin corrosion/irritation

Causes slight skin irritation.

Serious eye damage/irritation

Causes mild eye irritation.

Mutagenicity

No evidence of mutagenicity with in vitro testing. No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

Reproductive effects

No evidence of reproductive toxicity has been observed.

Teratogenicity

No evidence of teratogenicity has been observed in laboratory testing.

Symptoms and target organs

Exposed individuals may experience eye tearing, redness, and discomfort. Based on animal toxicity information for metaldehyde, it is anticipated that this material would be harmful upon ingestion and that direct contact may elicit mild eye and skin irritation. Overexposure to metaldehyde may cause excessive salivation, vomiting, nausea, acetonuria (odor of acetone on breath), convulsions, increased body temperature, depression of medullary respiratory and vasomotor control centers and coma. May be fatal. [Note: Because of the low amounts of metaldehyde in the product, it is unlikely the victim can be exposed to sufficient quantities of metaldehyde to have coma or death induced.]

Synergistic materials

Not available.

12. Ecological Information**Ecotoxicological data**

No ecotoxicity data noted for the ingredient(s).

Ecotoxicity

No information is available about the potential of this material to produce adverse environmental effects. This product may be fatal to dogs, other pests, and wild animals if eaten. May be toxic to water inhabitants. Do not contaminate water bodies.

Environmental effects

An environmental hazard cannot be excluded in the event of unprofessional handling or disposal.

Aquatic toxicity

Not available.

Persistence and degradability

Not available.

Partition coefficient

METHYL SALICYLATE

2.55

Mobility in environmental media

This product is miscible in water.

13. Disposal Considerations**Disposal instructions**

Collect and reclaim or dispose in sealed containers at licensed waste disposal site according to all applicable regulations. Do not allow this material to drain into sewers/water supplies. Dispose in accordance with all applicable regulations.

Waste from residues / unused products

Dispose of in accordance with all applicable regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal according to all applicable regulations. Since emptied containers may retain product residue, follow label warnings even after container is emptied.

14. Transport Information**TDG**

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory Information

Canadian regulations

This product has been classified in accordance with the hazard criteria of the CPR and the MSDS contains all the information required by the CPR. CANADIAN REGULATIONS: This product is registered under the Pest Control Product Act of Canada. It is a violation of Canadian Law to use this product in any manner inconsistent with its labeling. Read and follow all label directions. This product has been classified according to the hazard criteria of the CPR and the MSDS contains all the information required by the CPR.

WHMIS status

Non-controlled

WHMIS labeling



International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Canada	Domestic Substances List (DSL)	No
Canada	Non-Domestic Substances List (NDSL)	No
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	No

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other Information

References

ACGIH®: American Conference of Governmental Industrial Hygienists
CERCLA: Comprehensive Environmental Response, Compensation, and Liability Act
EPA: Environmental Protection Agency
FIFRA: Federal Insecticide, Fungicide, and Rodenticide Act
IARC: International Agency for Research on Cancer
NTP: National Toxicology Program
OSHA: Occupational Safety and Health Agency
SARA: Superfund Amendments and Reauthorization Act
TSCA: Toxic Substances Control Act
DOT: Department of Transportation
IMDG: International Maritime Dangerous Goods
IATA: International Air Transport Association

Recommended restrictions

Keep out of the Reach of Children!
Keep away from dogs!

HMIS® ratings

Health: 1
Flammability: 1
Physical hazard: 1

NFPA ratings

Health: 1
Flammability: 1
Instability: 1

Disclaimer

AMVAC Chemical Corporation cannot anticipate all conditions under which this information and its product, or the products of other manufacturers in combination with its product, may be used. It is the user's responsibility to ensure safe conditions for handling, storage and disposal of the product, and to assume liability for loss, injury, damage or expense due to improper use. This information is provided for the limited guidance to the user. While AMVAC believes that the information is, as of the date hereof, reliable, it is the user's responsibility to determine the suitability of the information for its purposes. The user is advised not to construe the information as absolutely complete since additional information may be necessary or desirable when particular, exceptional, or variable conditions or circumstances exist (like combinations with other materials), or because of applicable regulations. No express or implied warranty of merchantability or fitness for a particular purpose or otherwise is made hereunder with respect to the information or the product to which the information relates.

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Prepared by

Not available.

**This data sheet contains
changes from the previous
version in section(s):**

Product and Company Identification: Synonyms