



Aracinate

Safety Data Sheet

US and GHS

Revision date: May 29, 2015

Version: 1.0

SECTION 1: Product and Company Identification

1.1. Product identifier

Trade name : ARACINATE
Product code : EPA Reg. No. 74779-1

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

1.2.1. Relevant identified uses

Use of the substance/preparation : Insecticide

1.2.2. Uses advised against

No data available

1.3. Details of the supplier of the safety data sheet

Rainbow Treecare Scientific Advancements
11571 K-Tel Drive
Minnetonka, MN 55343
Phone: 1-(877) 272-6747 (toll free)
www.treecarescience.com

1.4. Emergency telephone number

Emergency number : (800)-424-9300 (CHEMTREC)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

<u>Hazard Class</u>	<u>Category</u>
Skin Corrosion/Irritation	2
Specific Target Organ Toxicity: Single Dermal	1
Inhalation	4
Skin Sensitizer	4
Eye Damage/Irritation	B1
Specific Target Organ Toxicity: Respiratory Irritation	2A
Flammable Liquid	3
Reproductive Toxicity	4
Specific Target Organ Toxicity: Repeated Oral	1B
	1
	3

Full text of H-phrases: see table in "Label elements" below

Adverse physicochemical, human health and environmental effects

No additional information available

2.2. Label elements

GHS Labeling Elements

GHS Labeling Elements

Hazard pictograms (CLP)



Signal word

: DANGER

Hazard statements

: Combustible liquid
 Toxic if swallowed
 Harmful in contact with skin
 Causes skin irritation
 May cause an allergic skin reaction
 Causes serious eye irritation
 Harmful if inhaled
 May cause respiratory irritation
 May damage fertility or the unborn child
 Causes damage to organs
 Causes 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, sparks, open flames, hot surfaces. No smoking.
 Do not breathe mist, vapors, spray.
 Wash hands 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 gloves, protective clothing, eye protection.
 If exposed or concerned: Call a poison center or doctor.
 See Section 4 First Aid Measures.
 Take off immediately all contaminated clothing and wash it before reuse.
 In case of fire: Use dry chemical, foam or CO2 for extinction.
 Store in a well-ventilated place. Keep cool.
 Dispose of contents and container in accordance with local regulations.

SECTION 3: Composition/information on ingredients

Chemical Name	Product identifier (CAS #)	%/wt.
Mineral Oil	8042-47-5	Trade Secret
Butylated Hydroxytoluene (BHT)	128-37-0	Trade Secret
n-Methylpyrrolidone	872-50-4	<30
Other ingredients	Trade Secret	>68
Abamectin	71751-41-2	2.0

Ingredients not precisely identified are proprietary or non-hazardous. Values are not product specifications.

SECTION 4: First aid measures

4.1. Description of first aid measures

Have the product container, label or Safety Data Sheet with you when calling a poison control center or doctor, or going for treatment.

- IF SWALLOWED** : Call a poison control center or doctor immediately for treatment advice. Do not give any liquid to the person. Do not induce vomiting unless told to by a poison control center or doctor. Do not give anything by mouth to an unconscious person.
- IF IN EYES** : Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call poison control center or doctor for treatment advice.
- IF ON SKIN OR CLOTHING** : Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
- IF INHALED** : Move to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth, if possible. Call a poison control center or doctor for treatment advice.

Most important symptoms/effects:

- Eye irritation
- Allergic skin reaction
- Respiratory irritation

Indication of immediate medical attention and special treatment needed:

Persons suffering a temporary allergic reaction may respond to treatment with antihistamines or steroid creams and/or systemic steroids.

Contains petroleum distillate - vomiting may cause aspiration pneumonia.

Early signs of intoxication include dilation of pupils, muscular incoordination and muscular tremors. Toxicity following accidental ingestion of abamectin can be minimized by early administration of chemical adsorbents (e.g. activated charcoal). If toxicity from exposure has progressed to cause severe vomiting, the extent of resultant fluid and electrolyte imbalance should be gauged. Appropriate supportive parental fluid replacement therapy should be given, along with other required supportive measures (such as maintenance of blood pressure levels and proper respiratory functionality) as indicated by clinical signs, symptoms and measurements. In severe cases, observations should continue for at least several days until clinical condition is stable and normal. Since abamectin is believed to enhance GABA activity in animals, it is probably wise to avoid drugs that enhance GABA activity (barbiturates, benzodiazepines, valproic acid) in patients with potentially toxic abamectin exposure.

SECTION 5: Firefighting measures

5.1. Extinguishing media

- Suitable extinguishing media : Use dry chemical, foam or CO2 extinguishing media. If water is used to fight fire, dike and collect runoff.
- Unsuitable extinguishing media : No information available.



5.2. Special hazards arising from the substance or mixture

- Specific hazards : Combustible liquid. Can release vapors that form explosive mixtures at temperatures at or above the flash point. Heavy vapors can flow along surfaces to distant ignition sources and flash back.
- During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

5.3. Advice for firefighters

- Firefighting instructions : Wear full protective clothing and self-contained breathing apparatus. Evacuate nonessential personnel from the area to prevent human exposure to fire, smoke, fumes or products of combustion.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions, protective equipment, and emergency procedures:

Follow exposure controls/personal protection outlined in Section 8.

6.2. Environmental precautions

Prevent material from entering sewers, waterways, or low areas. Do not allow material to contaminate water systems.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Follow exposure controls/personal protection outlined in Section 8.
- Control the spill at its source. Contain the spill to prevent from spreading or contaminating soil or from entering sewage and drainage systems or any body of water. Clean up spills immediately, observing precautions outlined in Section 8. Cover entire spill with absorbing material and place into compatible disposal container. Scrub area with hard water detergent (e.g. commercial products such as Tide, Joy, Spic and Span). Pick up wash liquid with additional absorbent and place into compatible disposal container. Once all material is cleaned up and placed in a disposal container, seal container and arrange for disposition.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Prevent eating, drinking, tobacco use, and cosmetic application in areas where there is a potential for exposure to the material. Wash thoroughly with soap and water after handling.

7.2. Conditions for safe storage, including any incompatibilities

- Storage conditions : Store the material in a well-ventilated, secure area out of reach of children and domestic animals. Do not store food, beverages or tobacco products in the storage area.



Aracinate

Safety Data Sheet

US and GHS

Revision date: May 29, 2015

Version: 1.0

SECTION 8: Exposure controls/personal protection

8.1. Personal protective equipment

Eye/Face Protection: To avoid contact with eyes, wear chemical goggles or shielded safety glasses. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

Skin Protection: To avoid contact with skin, wear long pants, long-sleeved shirt, socks, shoes and chemical-resistant gloves (such as barrier laminate or butyl rubber). Where contact is likely, wear chemical-resistant gloves (such as barrier laminate or butyl rubber), coveralls, socks and chemical-resistant footwear. An emergency shower or water supply should be readily accessible to the work area.

Respiratory Protection: A combination particulate/organic vapor respirator should be used until effective engineering controls are installed to comply with occupational exposure limits, or until exposure limits are established. Use a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any R, P or HE filter.

Use a self-contained breathing apparatus in cases of emergency spills, when exposure levels are unknown, or under any circumstances where air-purifying respirators may not provide adequate protection.

General Hygiene Considerations: Personal hygiene is an important work practice exposure control measure and the following general measures should be taken when working with or handling this material: 1) do not store, use and/or consume foods, beverages, tobacco products, or cosmetics in areas where this material is stored; 2) wash hands and face carefully before eating, drinking, using tobacco, applying cosmetics or using the toilet.

8.2. Exposure controls

Use effective engineering controls to comply with occupational exposure limits (if applicable).

Exposure limits have not been established for the active ingredients in this product. Other ingredient exposure limits are listed below, where applicable:

Mineral Oil (CAS – 8042-47-5)

ACGIH TLV – 5 mg/m³ TWA inhalable

Butylated Hydroxytoluene (BHT) (CAS – 128-37-0)

ACGIH TLV – 2 mg/m³ TWA (inhalable)

NIOSH – 10 mg/m³ TWA

n-Methylpyrrolidone (CAS – 872-50-4)

AIHA – 10 ppm TWA, Skin

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	: Yellow to red-brown liquid
Odor	: No data available
Odor threshold	: No data available
pH (1%)	: 2.6 – 3.6
Melting/freezing point	: No data available



Aracinate

Safety Data Sheet

US and GHS

Revision date: May 29, 2015

Version: 1.0

Initial boiling point/range	: No data available
Flash Point (Test Method)	: 161°F
Flammability Limits (% in Air)	: No data available
Flammability	: Combustible liquid
Vapor pressure	: Abamectin: 7.5 x 10 ⁻⁸ mmHg @ 77°F (25°C)
Vapor density	: No data available
Relative density	: 0.94 – 0.98 g/ml
Solubility	: Abamectin: 0.007 – 0.01 mg/l @ 68°F (20°C)
Partition coefficient: n-octanol/water	: No data available
Autoignition Temperature	: No data available
Decomposition Temperature	: No data available
Viscosity	: No data available
Other	: None

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not reactive.

10.2. Chemical stability

Stable under normal use and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

No information available.

10.5. Incompatible materials

None known.

10.6. Hazardous decomposition products

No information available.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Based on an evaluation of the ingredients and/or similar products.

Health effects information

Likely routes of exposure	: Dermal, Inhalation
Symptoms of exposure	: Eye irritation, Respiratory irritation
Delayed, immediate and chronic effects of exposure	: Eye irritation, Allergic skin reaction, Respiratory irritation



Aracinate

Safety Data Sheet

US and GHS

Revision date: May 29, 2015

Version: 1.0

Acute Toxicity		
Ingestion	Oral (LD ₅₀ rat)	300 mg/kg body weight
Dermal	Dermal (LD ₅₀ rabbit)	>1800 mg/kg body weight
Inhalation	Inhalation (LD ₅₀ rat)	3.5 mg/l air (4 hr)
Eye Contact	Moderately irritating (rabbit)	-
Skin Contact	Moderately irritating (rabbit)	-
Skin Sensitization	Sensitizing (guinea pig)	-

Reproductive & Developmental toxicity : Abamectin: Experiments have shown reproductive toxicity effects on laboratory animals.

Chronic/Subchronic Toxicity Studies : Abamectin: Central nervous system effects in chronic/subchronic animal tests.

Carcinogenicity : Abamectin: Did not show carcinogenic effects in animal experiments.

Chemical Name : NTP/IARC/OSHA Carcinogen

Mineral Oil : No

Butylated Hydroxytoluene (BHT) : IARC Group 3

n-Methylpyrrolidone : No

Other ingredients : No

Abamectin : No

Other Toxicity Information : None

Toxicity of Other Components

Butylated Hydroxytoluene (BHT)

Listed as an IARC (Group 3) carcinogen not classifiable as human (no data available) with limited animal evidence. Exposure may result in irritation to eyes, skin and respiratory tract. Ingestion may cause diarrhea, respiratory depression, tremors, and chronic pulmonary edema or congestion and hemorrhage.

Mineral Oil

May cause respiratory irritation when inhaled as a mist.

Other Ingredients

Not Applicable

n-Methylpyrrolidone

Harmful if absorbed through the skin. May cause respiratory tract irritation. Repeated or prolonged exposure may cause drying and cracking of the skin. Possible developmental hazard.

Target Organs

Active Ingredients

Abamectin : Skin, eye, CNS

Inert Ingredients

Butylated Hydroxytoluene (BHT) : Eye, skin, respiratory tract

Mineral Oil : Respiratory tract

Other ingredients : Not Applicable

n-Methylpyrrolidone : Eye, skin



Aracinate

Safety Data Sheet

US and GHS

Revision date: May 29, 2015

Version: 1.0

SECTION 12: Ecological information

12.1. Toxicity

Eco-Acute Toxicity

Ecotoxicity data are not available for ARACINATE. Active ingredient data are given below:

Abamectin		
Fish (Rainbow Trout)	LC ₅₀ (96 hr)	3.6 ppb
Bird (Bobwhite Quail)	LD ₅₀	>2000 mg/kg
Invertebrate (Water Flea)	EC ₅₀ (48 hr)	0.34 ppb
Green Algae	EC ₅₀ (9 day)	>100 ppm
Bee (Contact)	LD ₅₀ (48 hr)	0.41 ug/bee

12.2. Persistence and degradability

Abamectin : Not persistent in soil. Stable in water. Mixes in water (after 24 h).

12.3. Bioaccumulative potential

Abamectin : Low bioaccumulation potential.

12.4. Mobility in soil

Abamectin : Low mobility in soil.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Disposal: Do not reuse product containers. Dispose of product containers, waste containers, and residues according to local, state, and federal health and environmental regulations.

Characteristic Waste: Not Applicable

Listed Waste: Not Applicable

SECTION 14: Transport information

DOT Classification

Ground Transport - NAFTA

Proper Shippin Name : Pesticides, Liquid, Toxic, N.O.S. (Abamectin solution)

Hazard Class : 6.1

Identification Number : UN 2902

Packing Group : III

Comments



Aracinate

Safety Data Sheet

US and GHS

Revision date: May 29, 2015

Version: 1.0

Water Transport – International

Proper Shipping Name : Pesticides, Liquid, Toxic, N.O.S. (Abamectin solution), Marine Pollutant
Hazard Class : 6.1
Identification Number : UN 2902
Packing Group : III

Air Transport

Proper Shipping Name : Pesticides, Liquid, Toxic, N.O.S. (Abamectin solution)
Hazard Class : 6.1
Identification Number : UN 2902
Packing Group : III

SECTION 15: Regulatory information

FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

Signal word : WARNING
Hazard & Precautionary statements : May be fatal if swallowed. Causes substantial, but temporary eye injury. Wear protective eyewear. Do not get in eyes, or on clothing. Harmful if inhaled or absorbed through the skin. Prolonged or frequently repeated exposure may cause allergic skin reactions in some individuals. Do not breathe vapor. Avoid contact with skin.

EPCRA SARA Title III Classification:

Section 311/312 Hazard Classes: Acute Health Hazard
Chronic Health Hazard
Fire Hazard
Section 313 Toxic Chemicals: n-Methylpyrrolidone <30% (CAS No. 872-50-4)

California Prop 65: This product contains a chemical known to the State of California to cause birth defects and or reproductive harm.

CERCLA/DOT Reportable Quantities (RQ): None

RCRA Hazardous Waste Classification (40 CFR 261): Not applicable.

TSCA Status: Exempt from TSCA, subject to FIFRA

SECTION 16: Other information

National Fire Protection Rating (NFPA)

HEALTH	2
FLAMMABILITY	2
INSTABILITY	0
4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal	



Aracinate

Safety Data Sheet

US and GHS
Revision date: May 29, 2015

Version: 1.0

HMIS Ratings

HEALTH	2
FLAMMABILITY	2
REACTIVITY	0
4 = Severe 3 = Serious 2 = Moderate 1 = Slight 0 = Minimal	

MSDS US

Disclaimer: The information provided by Rainbow Treecare Scientific Advancements, contained herein is given in good faith and correct to the best of our knowledge. However, the information given is designed only as guidance for safe handling, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

REVISED: May 2015

REASON: GHS Compliance