

1. IDENTIFICATION

Product identifier

Product Name TREE-äge® R10

Other means of identification

SDS # ARBOR-019

Product Code 1 Pint 040-4130, 1 Pint case of 4 040-4135
Registration Number(s) EPA Reg No 74578-12
UN/ID No UN3082

Recommended use of the chemical and restrictions on use

Recommended Use Insecticide.

Details of the supplier of the safety data sheet

Supplier Address

Arborjet, Inc.
 99 Blueberry Hill Road
 Woburn, MA 01801
 Phone: 1-781-935-9070
 www.arborjet.com

Emergency telephone number

Emergency Telephone VelocityEHS 1-800-255-3924

2. HAZARDS IDENTIFICATION

Appearance Orange yellow to light orange liquid

Physical state Liquid

Odor Aromatic

Classification

| | |
|--|------------|
| Acute toxicity - Oral | Category 4 |
| Acute toxicity - Inhalation (Dusts/Mists) | Category 4 |
| Serious eye damage/eye irritation | Category 1 |
| Specific target organ toxicity (single exposure) | Category 2 |
| Specific target organ toxicity (repeated exposure) | Category 2 |

Signal Word

Danger

Hazard statements

Harmful if swallowed
 Harmful if inhaled
 Causes serious eye damage
 May cause damage to organs
 May cause damage to organs through prolonged or repeated exposure



Precautionary Statements - Prevention

Wash face, hands and any exposed skin thoroughly after handling
 Do not eat, drink or smoke when using this product
 Use only outdoors or in a well-ventilated area
 Wear eye protection/ face protection
 Do not breathe dust/fume/gas/mist/vapors/spray

Precautionary Statements - Response

IF exposed: Call a POISON CENTER or doctor
 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 Immediately call a POISON CENTER or doctor
 IF INHALED: Remove person to fresh air and keep comfortable for breathing
 Call a poison center or doctor/physician if you feel unwell
 IF SWALLOWED: Call a POISON CENTER or doctor if you feel unwell
 Rinse mouth

Precautionary Statements - Storage

Store in a well-ventilated place. Keep container tightly closed
 Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical name | CAS No | Weight-% |
|---|-------------|----------|
| Dipropylene Glycol Monomethyl Ether (DPM) | 34590-94-8 | ≥75-≤90 |
| Emamectin benzoate | 155569-91-8 | ≤10 |

If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.

4. FIRST AID MEASURES

Description of first aid measures

| | |
|-----------------------|--|
| General Advice | IF exposed or if you feel unwell: Call a POISON CENTER or doctor/physician. |
| Eye Contact | Get medical attention immediately. Call a poison center or physician. Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 15 to 20 minutes. Chemical burns must be treated promptly by a physician. |
| Skin Contact | Get medical attention immediately. Call a poison control center or doctor for treatment advice. Remove contaminated clothing and shoes. Rinse skin immediately with plenty of water for 15-20 minutes. Wash contaminated clothing before reuse. Clean shoes thoroughly before reuse. |
| Inhalation | Remove victim to fresh air and keep at rest in a position comfortable for breathing. If it is suspected that fumes are still present, the rescuer should wear an appropriate mask or self-contained breathing apparatus. If not breathing, if breathing is irregular or if respiratory arrest occurs, provide artificial respiration or oxygen by trained personnel. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Get medical attention. If necessary, call a poison center or physician. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept |

under medical surveillance for 48 hours.

Ingestion

Get immediate medical attention. Wash out mouth with water. Remove dentures if any. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Stop if the exposed person feels sick as vomiting may be dangerous. Do not induce vomiting unless directed to do so by medical personnel. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. Get medical attention if adverse health effects persist or are severe. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Maintain an open airway. Loosen tight clothing such as a collar, tie, belt or waistband.

Self-Protection of the First Aider No action shall be taken involving any personal risk or without suitable training. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Do not use mouth-to-mouth method if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device.

Most important symptoms and effects, both acute and delayed**Symptoms**

Harmful if swallowed. Harmful if inhaled. May be harmful in contact with skin. Causes serious eye damage. Skin contact may cause irritation, burns and dermatitis. Ingestion may cause gastric upset.

Indication of any immediate medical attention and special treatment needed**Notes to Physician**

Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled. Early signs of intoxication include mydriasis (dilate pupils), ataxia (unsteadiness), and muscle tremors. Toxicity following accidental ingestion of product and can be minimized by promptly administering 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 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 this product 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 exposure.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Dry Chemical, Foam or Carbon Dioxide. Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media Do not use water in a jet.

Specific Hazards Arising from the Chemical

In a fire or if heated, a pressure increase will occur and the container may burst.

Hazardous combustion products Carbon dioxide (CO₂). Carbon monoxide. Irritating and/or toxic gases.

Protective equipment and precautions for firefighters

Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training. Move containers from fire area if this can be done without risk. Use water spray to keep fire-exposed containers cool. Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

| | |
|---------------------------------|---|
| Personal Precautions | No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment. |
| For Emergency Responders | If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel". |

Environmental precautions

| | |
|----------------------------------|---|
| Environmental precautions | Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). See Section 12 for additional Ecological Information. |
|----------------------------------|---|

Methods and material for containment and cleaning up

| | |
|--------------------------------|--|
| Methods for Containment | Prevent further leakage or spillage if safe to do so. |
| Methods for Clean-Up | <p>Small Spill: Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.</p> <p>Large Spill: Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.</p> |

7. HANDLING AND STORAGE

Precautions for safe handling

| | |
|--------------------------------|--|
| Advice on Safe Handling | Put on appropriate personal protective equipment (see section 8). Workers should wash hands and face before eating, drinking and smoking. Do not get in eyes or on skin or clothing. Do not breathe gas. Use only with adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Keep in the original container or an approved alternative made from compatible material, kept tightly closed when not in use. Empty containers retain product residue and can be hazardous. Do not reuse this container. Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Remove contaminated clothing and protective equipment before entering eating areas. |
|--------------------------------|--|

Conditions for safe storage, including any incompatibilities

| | |
|---------------------------|--|
| Storage Conditions | Store in accordance with local regulations. Store in a segregated and approved area. Store away from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see section 10). Eliminate all ignition sources. Separate from oxidizing materials. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination. |
|---------------------------|--|

Incompatible Materials

None known based on information supplied.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION**Exposure Guidelines**

| Chemical name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|---|------------------|--|---|
| Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8 | TWA: 50 ppm | TWA: 100 ppm TWA: 600 mg/m ³ (vacated) TWA: 100 ppm (vacated) TWA: 600 mg/m ³ (vacated) STEL: 150 ppm (vacated) STEL: 900 mg/m ³ (vacated) S* S* | IDLH: 600 ppm TWA: 100 ppm TWA: 600 mg/m ³ STEL: 150 ppm STEL: 900 mg/m ³ |

Appropriate engineering controls**Engineering Controls**

If user operations generate dust, fumes, gas, vapor or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits. Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.

Individual protection measures, such as personal protective equipment**Eye/Face Protection**

Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: chemical splash goggles and/ or face shield. If inhalation hazards exist, a full-face respirator may be required instead.

Skin and Body Protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. Disposable vinyl, natural rubber (latex), neoprene, neoprene rubber, nitrile rubber, polyethylene (PE), polyvinyl chloride (PVC). Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product. When there is a risk of ignition from static electricity, wear anti-static protective clothing. For the greatest protection from static discharges, clothing should include anti-static overalls, boots and gloves. Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling.

Respiratory Protection

Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

General Hygiene Considerations

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Appropriate techniques should be used to remove potentially contaminated clothing. Ensure that eyewash stations and safety showers are close to the workstation location.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

| | | | |
|-----------------------|--------------------------------------|-----------------------|----------------|
| Physical state | Liquid | Odor | Aromatic |
| Appearance | Orange yellow to light orange liquid | Odor Threshold | Not determined |
| Color | orange yellow to light orange | | |

| <u>Property</u> | <u>Values</u> | <u>Remarks • Method</u> |
|--|---|-------------------------|
| pH | No data available | |
| Melting point / freezing point | No data available | |
| Initial boiling point and boiling range | No data available | |
| Flash point | No data available | |
| Evaporation Rate | Not determined | |
| Flammability (Solid, Gas) | Liquid-Not applicable | |
| Flammability Limit in Air | | |
| Upper flammability or explosive limits | No data available | |
| Lower flammability or explosive limits | No data available | |
| Vapor Pressure | 3 x 10(-8) mm Hg [70°F (21°C)] (Emamectin benzoate) | |
| Vapor Density | No data available | |
| Relative Density | 0.8 to 1.02 g/cm ³ | |
| Water Solubility | Not determined | |
| Solubility in other solvents | 30 - 50 ppm [pH 7] (Emamectin benzoate) | |
| Partition Coefficient | Not determined | |
| Autoignition temperature | No data available | |
| Hyphen | Not determined | |
| Kinematic viscosity | Not determined | |
| Dynamic Viscosity | Not determined | |
| Explosive Properties | Not determined | |
| Oxidizing Properties | Not determined | |

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical stability

Stable under recommended storage conditions.

Possibility of hazardous reactions

None under normal processing.

Conditions to Avoid

Keep out of reach of children.

Incompatible materials

None known based on information supplied.

Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

| | |
|---------------------|--------------------------|
| Eye Contact | Avoid contact with eyes. |
| Skin Contact | Avoid contact with skin. |
| Inhalation | Harmful if inhaled. |
| Ingestion | Harmful if swallowed. |

Component Information

| Chemical name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|---|---------------------|-------------------------|--|
| Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8 | = 5.35 g/kg (Rat) | = 9500 mg/kg (Rabbit) | - |
| Emamectin benzoate 155569-91-8 | = 63 mg/kg (Rat) | = 2000 mg/kg (Rat) | 1.049 - 1.981 mg/L (Rat) 4 h = 0.663 mg/L (Rat) 4 h |

Symptoms related to the physical, chemical and toxicological characteristics

| | |
|-----------------|--|
| Symptoms | Please see section 4 of this SDS for symptoms. |
|-----------------|--|

Delayed and immediate effects as well as chronic effects from short and long-term exposure

| | |
|--|---|
| Serious eye damage/eye irritation | Causes serious eye damage. |
| Carcinogenicity | Based on the information provided, this product does not contain any carcinogens or potential carcinogens as listed by OSHA, IARC or NTP. |
| STOT - single exposure | May cause damage to organs. |
| STOT - repeated exposure | May cause damage to organs through prolonged or repeated exposure. |

Numerical measures of toxicity

The following values are calculated based on chapter 3.1 of the GHS document

| | |
|--------------------------------------|----------------|
| Oral LD50 | 569.60 mg/kg |
| Dermal LD50 | 2,336.10 mg/kg |
| ATEmix (inhalation-dust/mist) | 0.501 mg/l |

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

| Chemical name | Algae/aquatic plants | Fish | Crustacea |
|---|----------------------|---|---------------------------------------|
| Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8 | | 10000: 96 h Pimephales promelas mg/L LC50 static | 1919: 48 h Daphnia magna mg/L LC50 |

Persistence/Degradability

Not determined.

Bioaccumulation

There is no data for this product.

Mobility

| Chemical name | Partition coefficient |
|---|-----------------------|
| Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8 | 0.35 |

Other adverse effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods**Disposal of Wastes**

The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers.

Contaminated Packaging

Disposal should be in accordance with applicable regional, national and local laws and regulations.

14. TRANSPORT INFORMATION

Note

Please see current shipping paper for most up to date shipping information, including exemptions and special circumstances.

DOT

| | |
|-----------------------------------|---|
| UN/ID No | UN3082 |
| Proper Shipping Name | Environmentally hazardous substance, liquid, n.o.s. (Emamectin benzoate) |
| Transport hazard class(es) | 9 |
| Packing Group | III |
| Marine Pollutant | This material ships as a marine pollutant when inner package/single container is greater than 119 gallons/ 882 lbs. |

IATA

| | |
|-----------------------------------|---|
| UN number or ID number | UN3082 |
| Proper Shipping Name | Environmentally hazardous substance, liquid, n.o.s. (Emamectin benzoate) |
| Transport hazard class(es) | 9 |
| Packing group | III |
| Description | This material ships as a marine pollutant when inner packagings exceed 5L/5KG |

IMDG

| | |
|-----------------------------------|---|
| UN number or ID number | UN3082 |
| Proper Shipping Name | Environmentally hazardous substance, liquid, n.o.s. (Emamectin benzoate) |
| Transport hazard class(es) | 9 |
| Packing Group | III |
| Marine Pollutant | This material ships as a marine pollutant when inner packagings exceed 5L/5KG |

| |
|-----------------------------------|
| 15. REGULATORY INFORMATION |
|-----------------------------------|

International Inventories

| Chemical name | TSCA | TSCA Inventory Status | DSL/NDSL | EINECS/ELINCS | ENCS | IECSC | KECL | PICCS | AIC |
|---|------|-----------------------|----------|---------------|------|-------|------|-------|-----|
| Dipropylene Glycol Monomethyl Ether (DPM) | X | ACTIVE | X | X | X | X | X | X | X |

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

AICS - Australian Inventory of Chemical Substances

US Federal Regulations**CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355).

SARA 313

| Chemical name | CAS No | Weight-% | SARA 313 - Threshold Values % |
|--|------------|----------|-------------------------------|
| Dipropylene Glycol Monomethyl Ether (DPM) - 34590-94-8 | 34590-94-8 | ≥75-≤90 | 1.0 |

CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

US State Regulations**California Proposition 65**

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical name | New Jersey | Massachusetts | Pennsylvania |
|---|------------|---------------|--------------|
| Dipropylene Glycol Monomethyl Ether (DPM) 34590-94-8 | X | X | X |

EPA Pesticide Registration Number EPA Reg. No. 74578-12

EPA Statement

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:

EPA Pesticide Label

Please see EPA label for additional information

Difference between SDS and EPA pesticide label

Please see EPA label for additional information

16. OTHER INFORMATION

| | | | | |
|--------------------|-----------------------|---------------------|-------------------------|----------------------------|
| <u>NFPA</u> | Health hazards | Flammability | Instability | Special hazards |
| | 3 | 1 | 0 | - |
| <u>HMIS</u> | Health hazards | Flammability | Physical hazards | Personal Protection |
| | 3 | 1 | 0 | Not determined |

Issue Date: 09-Sep-2022

Revision Date: 20-Sep-2022

Revision Note: New format

Disclaimer

The information provided in 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 guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered 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 materials or in any process, unless specified in the text.

End of Safety Data Sheet