



# MATERIAL SAFETY DATA SHEET

## AZACT CE

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### 1. IDENTIFICATION

- **Product name:** AZACT CE.
- **Main recommended uses:** Pesticide and fungicide from the tetranortriterpenoid chemical group.
- **Supplier:** **Luiz Arthur Cury e Silva Agronegócios EPP**  
Rua Angela Berbel Pagano, 816 – Alvorada  
Cravinhos - SP CEP: 14140-000  
CNPJ: 00.880.304/0001-90  
E-mail: [atendimento@lacsacom.br](mailto:atendimento@lacsacom.br)  
Telephone: (16) 3482 – 2534
- **Emergency telephone:** (16) 3482 – 2534

### 2. HAZARDS IDENTIFICATION

- **Emergency overview:** the product may be toxic to humans and to environment if not used as recommended.
- **Product effects:**
  - Adverse effects to human health: may be harmful if inhaled and in touch with skin. Generates ocular irritation and mild irritation to the skin.
  - Environmental effects: there are no harmful environmental effects related to the product.
  - Physical and chemical dangers: non-inflammable.
- **Main symptoms:** the ingestion of high amounts of product may cause nausea, abdominal pain, vomits and diarrhea. Contact to the skin can cause itching, soreness and edema.
- **Product danger classification:** Hazard classification system according with the Globally Harmonized System of Classification and Labeling of Chemicals and ABNT-NBR 14725 – Part 2:2009.

Acute toxicity – oral: unclassified.

Acute toxicity – dermic: category 5.

Acute toxicity – inhalation: category 4.

Skin Corrosion/Irritation: category 3.

Serious Eye Damage/Eye Irritation: category 2B.

Respiratory or Skin Sensitization: impossible classification.

Germ Cell Mutagenicity: impossible classification.

Carcinogenicity: impossible classification.

Reproductive Toxicology: impossible classification.

Target Organ Systemic Toxicity - Single Exposure: impossible classification.

Target Organ Systemic Toxicity - Repeated Exposure: impossible classification.


Aspiration Toxicity: impossible classification.

Acute aquatic toxicity: impossible classification.

Chronic aquatic toxicity: impossible classification.

Flammable liquids: unclassified.

- **Appropriate elements on labeling:**

<b>Pictogram</b>	
<b>Warning words</b>	Attention

**Hazard statements:**

- H313: May be harmful in contact with skin.
- H332: Harmful if inhaled.
- H316: Causes mild skin irritation.
- H320: Causes eye irritation.

**Precautionary statements:**

- P312: Call a POISON CENTER/doctor if you feel unwell.
- P261: Avoid breathing dust/fumes/gas/mist/vapours/spray.



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- P271: Use only outdoors or in a well-ventilated area.
- P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing.

### 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical characterization:** this product is a mixture.

**Hazardous or regulated compounds:**

Chemical name	CAS-number	Concentration	Molecular formula	Synonyms	Hazard classification
Dimethyl (2aR, 3S, 4S, R, S, 7aS, 8S, 10R, 10aS, 10bR)- 10-(acetyloxy) 3,5-dihydroxy-4- [(1S, 2S, 6S, 8S, 9R, 11S)-2-hydroxy-11- methyl-5,7,10- trioxatetracyclo [6.3.1.0 <sup>2.6</sup> .0 <sup>9.11</sup> ] dodec-3-en-9-yl] - 4-methyl-8- {[ (2E)- 2-methylbut-2-enoyl]oxy} octahydro-1H-furo [3', 4', 4a] naphto [1,8-bc] furan-5, 10a (8H)- dicarboxylate	11141-17-6/106500-25-8	2,4g/L (0,24% m/v)	C <sub>35</sub> H <sub>44</sub> O <sub>16</sub> / C <sub>33</sub> H <sub>42</sub> O <sub>14</sub>	Azadiractina A/B	Skin sensibilization : category 1

Hazard classification system according with the Globally Harmonized System of Classification and Labeling of Chemicals and ABNT-NBR 14725 – Part 2:2009.

### 4. FIRST AID MEASURES

Take the exposed to fresh air. Remove all the exposed clothes. Wash the exposed body parts with water and soap. If the person is unconscious and does not breathe anymore, apply oxygenation or artificial breathing. Forward to the closer healthcare service with this sheet.

- **Inhalation:** remove the exposed to airy places. If the person presents any difficulty on breathing, look for a doctor immediately. If the person is not breathing, apply artificial breathing. Use and intermediate (alike Ambu®) to perform the procedure.



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- **Skin contact:** wash the affected area with water and soap immediately, for the maximum amount of time. Remove the contaminated clothes. If there are any other effects or symptoms, ask for a doctor. Wash the contaminated clothes before using them again.
- **Eye contact:** wash them immediately for the maximum amount of time. Keep the eyes opened in order to guarantee an adequate eye washing. Call a physician if any irritation occurs.
- **Ingestion:** Do not induce vomiting without medical advice, though it may happen spontaneously and in that case, it should not be avoided. Lay the patient by its side to avoid any liquid breathing. Call a physician immediately. ATTENTION: Never give anything by mouth to an unconscious person.
- **Actions that should be avoided:** do not perform cardiopulmonary resuscitation if the patient has ingested the product. Use an intermediate (as Ambu®) to perform the procedure.
- **Protection for the first aid performers:** avoid oral, cutaneous, ocular and inhalatory contact with the product during the process.
- **Notes for the physician:** there is no specific antidote. In case of ingestion, gastric lavage is recommend at a maximum of 2 hours after ingestion. The symptomatic treatment should comprehend measure of support and correction of hydroeletrolitic and metabolic disturbs, as well as respiratory assistance. Monitoring of hepatic and renal functions has to be maintained.

### 5. HAZARDS IDENTIFICATION

- **Suitable extinguishing media:** use water mist, carbon dioxide or dry chemical. Always stay along with wind to avoid intoxication
- **Unsuitable extinguishing media:** avoid water spray directly on the product.
- **Specific hazards during firefighting:** evacuate the rea and extinguish fire with a safe security area. Contain the water used on firefighting. Stay on your back to the wind. Use water mist to cool down equipment exposed to fire heat.
- **Special protective equipment for firefighters:** breathing equipment and appropriate vests.



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- **Specific hazards of the chemical combustion:** the chemical combustion may generate acetic acid, ethanol, toxic fumes, carbon dioxide and carbon monoxide.

### 6. ACCIDENTAL RELEASE MEASURES

- **Personal precautions:** use impermeable vests, protective glasses, rubber shoes and nitrilic or PVC gloves. Respiratory protection might be necessary depending on the concentrations of the chemical on the ambient and considering the extension of the spillage. In that case, semifacial or full-face masks are recommended.
  - **Ignition sources:** interrupt electric energy and turn off sources of sparks. Remove from the area every material that may cause a fire: (i.e.: diesel oil).
  - **Dust control:** not applicable as the product is a liquid.
  - **Inhalation and skin, mucosa and eye contact prevention:** use protective clothes and accessories as recommended above on Personal precautions area.
- **Environmental precautions:** avoid watercourses contamination by sealing the entrance of pluvial water galleries. Avoid that product residues affect water sources.
- **Cleaning methods:** eliminate every source of heat or fire. Move curious people away and install hazard signalization. Avoid contact with the skin or clothes. **Paved floor:** absorb the product with sand or sawdust and gather the material with the assistance of a shovel. Put on a sealed and identified container. **Soil:** take away the contaminated layers of soil until reaching non-contaminated soil. Gather the material and put it on a sealed and identified container. Contact the supplier. **Watercourses:** interrupt immediately the catchment for human or animal consumption; contact the closest environmental agency and the emergency center of the supplying company. The spilled product should not be used anymore. Call the registrant for returning and final destination.
- **Prevention of secondary hazardous:** avoid that the product contaminates streams, lakes, water fountains, wells, drainage systems and sewers.

### 7. HANDLING AND STORAGE

#### HANDLING



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- **Technical measures:** product exclusive for agricultural use. AZACT CE is a pesticide/fungicide from the group of the group of tetranortriterpenoides and is a 100% natural and safe for humans, birds and non-target species, such as pollinators and natural predators. No restrictions are imposed as in some agrochemicals classics. MODE OF ACTION: See package insert. APPLICATION PROCEDURE: AZACT EC is indicated for use in spray diluted in water. Shake the product before preparing the solutions. The product should be used in the form of spray overland. PREPARATION: Add product to spray along with clean water. To complete the amount recommended by the product, keep the mixture stirring. WITHDRAWAL PERIOD: Not establishing withdrawal period is required. RE-ENTRY INTERVAL PEOPLE IN CROPS AND TREATED AREAS: no re-entry interval in treated crops is necessary. **Keep the product away from children and animals. Before using the product, read the instructions.**
  - **Worker exposure prevention:** use protective equipment as described on section 8. Do not eat, drink or some during the product handling. Open the product avoiding spillage. Do not use damaged protective or application equipment. Do not unblock burners, openings, tubes or valves with mouth. Do not manipulate and/or carry damaged packaging.
- **Safe handling instructions:** wear PPE as described on item 8. Handle the product with appropriate local exhaustion or in a well-ventilated area. In the case of intoxication symptoms, immediately stop the work and proceed as described in item 4 of this sheet.
- **Hygiene measures:** Appropriate: Wash contaminated clothing separately, avoiding contact with other personal use items. Wash hands before eating or smoking. Do not handle material near food, feed or drinking water. Inappropriate: do not wash contaminated clothing along with other items of clothing or personal use tools.
- **Storage conditions:** Appropriate: keep the product in its original packaging, always closed. The site should be unique to the product should be isolated from food, drink, feed or other materials. Lock the site, preventing access of unauthorized persons, especially children. There should always be appropriate packages available to involve broken or the collection of leaked product packaging. In case of warehouses, should follow the instructions of ISO 9843 the Brazilian Association of Technical Standards - ABNT. Observe the provisions of state and municipal laws. Inappropriate: humid, heat sources.
- **Incompatible products and materials:** do not store with food, drinks, including those intended for animals.



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- **Safe materials for packaging:** Recommended: product already packed in suitable containers. Unsuitable: Do not remove the product from its original packaging.

### 8. EXPOSURE CONTROL AND PERSONAL PROTECTION

- **Engineering control measures:** provide appropriate ventilation. The operator should always wear respiratory equipment even when provided a good ventilation. Keep containers solidly sealed.
- **Specific control parameters:**

#### Occupational exposure limits:

Name	Exposure limit	Type	Effect	References
Azadiractina A/B	Not established	TLV-TWA	---	ACGIH 2013
	Not established	REL-TWA	---	NIOSH
	Not established	PEL-TWA	---	OSHA

#### Biological Indicators

Name	Biological limit	Type	Collection time	References
Azadiractina A/B	Not established	BEI	---	ACGIH 2013

**Special cautions:** keep the personal protection equipment clean and in good use conditions, performing periodic inspections and possible maintenances and/or substitutions of damaged equipment.

### 9. PHYSICAL AND CHEMICAL PROPERTIES

- **Physical state:** liquid.
- **Formulation type:** emulsifiable concentrate.
- **Color:** marrom escuro.



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- **Odor:** característico.
- **pH:** 6.5 – 7.5.
- **Boiling point/freezing point:** 140°C
- **Initial boiling point and ebullition range:** >1300°C
- **Flash point:** not available.
- **Flammability:** not available.
- **Evaporation rate:** not available.
- **Inferior/superior limits of flammability:** not available.
- **Vapor pressure:** < 1,33 EE<sup>-5</sup> Pa
- **Vapor density:** not available.
- **Relative density:** 0,98.
- **Solubility/miscibility:** water soluble.
- **Partition coefficient n-octanol/water:** not available.
- **Auto-ignition temperature:** not available.
- **Decomposition temperature:** not available.
- **Viscosity:** not available.

### 10. STABILITY AND REACTIVITY

- **Chemical stability:** stable under normal conditions of use and storage.
- **Reactivity:** data not available concerning product reactivity.
- **Possibility of dangerous reactions:** data not available.
- **Conditions to be avoided:** avoid contact with heat, high temperatures, sources of ignition and exposure to direct solar light.
- **Incompatible materials or substances:** there are not known incompatible substances.

**Harmful dangerous subproducts:** there are not known harmful subproducts.

### 11. TOXICOLOGICAL INFORMATION

- **Acute toxicity:**
  - **Oral LD<sub>50</sub> (rats):** > 5000 mg/Kg





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- **Oral LD<sub>50</sub> (rabbits):** > 4000 mg/Kg.
- **Inhalatory CL<sub>50</sub> (rats) (4h):** > 1,73 mg/L.
- **Local effects:**
  - **Cutaneous irritability:** low irritation to the skin.
  - **Ocular irritability:** low irritation to the eyes.
  - **Skin sensitization:** not sensitizing to the skin.
  - **Respiratory sensitization:** not available date.
- **Chronical toxicity:**
  - **Germ Cell Mutagenicity:** no evidences of genotoxicity and mutagenicity.
  - **Carcinogenicity:** no evidences of carcinogenicity.
  - **Reproductive Toxicology:** no evidences of reproductive toxicity.
  - **Target Organ Systemic Toxicity - Single Exposure:** no data available.
  - **Target Organ Systemic Toxicity - Repeated Exposure:** no data available.
- **Aspiration harmfulness:** no data available.
- **Main symptoms:** the ingestion of huge quantities may cause nausea, abdominal pain, vomits and diarrhea. Contact of the product with skin may can itching, soreness, redness and edema.

### 12. ECOLOGICAL INFORMATION

- **Ambiental, comportamental effects and product impacts:**
  - **Persistence/degradability:** no data available.
  - **Ecotoxicity:**
    - Crustaceous toxicity: no data available.
    - Algae toxicity: no data available.
    - Fish toxicity: no data available.
  - **Soil mobility:** no data available.
  - **Bioacummulation:** no data available.

### 13. DISPOSAL CONSIDERATIONS

- **Methods of treatment and disposal:**
  - **Product:** expired products needs to be discarded appropriately.
  - **Product remains:** product remains should not be inappropriately discarded after its use. Keep eventual expired remains in its original containers appropriately closed. The



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storage of the empty container, until its returning by the user, has to be done on covered place, well aired, sheltered from rain and impermeable floor.

### 14. REGULATORY INFORMATION

ABNT NBR – 14725

Resolução 420 – ANTT

IMDG CODE

Registered on Ministério da Agricultura, Pecuária e Abastecimento - MAPA under n. 8015.

### 15. OTHER INFORMATION

“This sheet has been elaborated by TOXICLIN® Medical Services using data provided by the distributing company. The information in this MSDS represent the current data and reflect with precision our best knowledge to the handling of this product, according specifications provided. Any other uses from the product apart from the recommended are from the user’s responsibility.

#### Definitions:

Impossible classification – there are not enough or available data for the classification of the product.

Not classified – product is not able to be inserted on a GHS classification, so there is no risk.

#### Bibliography:

ASSOCIAÇÃO BRASILEIRA DE NORMAS TÉCNICAS – ABNT. NBR 14725. Adoção do GHS, Parte 2: 2009.

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