


Safety Data Sheet

ARGENTO L10036 (Act 36 of 1947)

1) PRODUCT AND COMPANY IDENTIFICATION	
Product name:	ARGENTO
Other means of identification:	Iprovalicarb 250 g/L SC
Chemical Name:	Iprovalicarb (IUPAC): isopropyl 2-methyl-1-[(1-ptolyethyl)carbomyl]-(S)-propylcarbamate
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN No:	3082
Distributed by:	MERIDIAN AGRITECH P O BOX 436 MODDERFONTEIN TEL 011 8228509 FAX 0866901386 MOBILE: 0834006056 www.agritech.co.za
Emergency Number:	POISON CENTRE (UNITAS HOSPITAL) 012 664 1100 TYGERBERG:021 931 6129 RED CROSS 021 689 5227 RAPID SPILL RESPONSE 0800 775 3305 GRIFFON POISON CENTRE: 082 446 8946
2) HAZARDS IDENTIFICATION:	
Classification of the substance/mixture:	Acute Toxicity (Oral) Category 4 STOT RE Category 2 (kidney, heart, central nervous system, liver, oral) STOT SE Category 3 Skin Irritation Category 2 Eye Irritation Category 2 Mutagenicity Category 1B Reproductive Category 1B Aquatic Chronic Category 3
Label Elements: Globally Harmonized System, EU (GHS):	<p>Pictograms:</p>  <p>Signal word: Warning</p> <p>Hazard Statements: H302: Harmful if swallowed. H315: Causes skin irritation. H319: Causes serious eye irritation. H336: May cause drowsiness and dizziness. H340: May cause genetic defects. H360: May damage fertility or the unborn child. H373: May cause damage to organs through prolonged or repeated exposure. H412: Harmful to aquatic life with long-lasting effects.</p> <p>Precautionary Statements: P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood.</p>

According to Directive 67/548/EEC No. 1272/2008 [CLP]

P262: Do not get in eyes, on skin, or on clothing.
P263: Avoid contact during pregnancy or while nursing.
P270: Do not eat, drink or smoke when using the product.
P272: Contaminated work clothing should not be allowed out of the workplace.
P273: Avoid release to the environment.
P280: Wear protective gloves, protective clothing, eye protection.
P321: Specific treatment (See First aid measures on this label)
P362+P364: Take off contaminated clothing and wash it before reuse.
P405: Store locked up.

Hazard Symbol(s):

Xi - Irritant
 N – dangerous for the environment

R-phrases(s):

R22: Harmful by inhalation, in contact with skin and if swallowed.
R38: Irritating to skin.
R41: Risk of serious damage to eyes.
R46: May cause heritable genetic damage.
R48/22: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
R52/53: Harmful to aquatic organisms may cause long-term adverse effects in the aquatic environment.
R60: May impair fertility.

S-phrases(s):

S1/2: Keep locked up and out of the reach of children.
S7: Keep container tightly closed.
S13: Keep away from food, drink and animal feeding stuffs.
S18: Handle and open container with care.
S20/21: When using, do not eat drink or smoke.
S24/25: Avoid contact with skin and eyes.
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39: Wear suitable protective clothing, gloves and eye/face protection.
S35: This material and its container must be disposed of in a safe way.
S46: If swallowed, seek medical advice immediately and show this container.
S57: Use appropriate containment to avoid environmental contamination.
S60: This material and its container must be disposed of as a hazardous waste.
S62: If swallowed, do not induce vomiting: seek medical advice immediately

3) COMPOSITION / INFORMATION ON INGREDIENTS:

3.1 Substances:

Not applicable

3.2 Mixtures:

Chemical name	Concentration	CAS No.	EC No.	Classification according to Regulation EC 1272/2008 (CLP)
Iprovalicarb	250 g/L	140923-17-7	604-209-3	
Ethylene glycol	40.6 g/L	107-21-1	203-473-30	Acute Tox. Cat. 4 (H302) STOT RE Cat. 2 (H373, kidney, heart, central nervous system, liver, oral) STOT SE Cat. 3 (H336) Skin Irrit. Cat. 2 (H315) Muta. Cat. 1B (H340) Repr. Cat. 1B (H360) Aquatic Chronic Cat. 3 (H412) Eye Irrit. Cat. 2 (H319)

4) FIRST AID MEASURES:

<p>Description of First-Aid Measures:</p> <p>Inhalation:</p> <p>Skin contact:</p> <p>Eye contact:</p> <p>Ingestion:</p> <p>Most important symptoms and effects, both acute and delayed: Indication of any immediate medical attention and special treatment needed:</p>	<p>Remove patient to fresh air. Loosen clothing around neck. Lie down and keep warm and rested. If breathing is shallow or has stopped ensure airway is clear and apply resuscitation. Seek medical assistance if symptoms of irritation develop.</p> <p>Immediately flush body and clothes with large amounts of water. Remove contaminated clothing and footwear. Wash affected areas with a non-abrasive soap and water. Seek medical assistance if irritation occurs.</p> <p>Flush eyes with plenty of water for 15 minutes holding eyelids open. Remove contact lenses, if present, after the first 5 minutes. Seek medical assistance.</p> <p>Never give anything by mouth to an unconscious person. Do not induce vomiting. For advice, contact a medical doctor or the National Poisons Centre. Seek medical assistance immediately.</p> <p>None known.</p> <p>No specific antidote known. Treat symptomatically and supportively.</p>
<p>5) FIRE-FIGHTING MEASURES:</p>	
<p>Extinguishing Media:</p> <p>Unsuitable Extinguishing Media:</p> <p>Specific Hazards arising from the substance/mixture:</p> <p>Fire Fighting:</p> <p>Protective clothing:</p>	<p>Fine water spray, foam, carbon dioxide, dry chemical powder. Do not use high volume water jet, due to contamination risk.</p> <p>Do not use high volume water jet, due to contamination risk.</p> <p>When heated to decomposition, irritant or dangerous fumes may be emitted.</p> <p>Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal. Avoid inhaling hazardous vapours and fumes from burning materials. Keep upwind. Remove container from fire area if possible and without risk. Water can be used to cool unaffected containers but must be contained for later disposal. Do not scatter the material. Avoid pollution of waterways.</p> <p>Full protective clothing and self-contained breathing apparatus.</p>
<p>6) ACCIDENTAL RELEASE MEASURES:</p>	
<p>Personal precautions, protective equipment and emergency procedures:</p> <p>Environmental precautions:</p> <p>Methods and material for containment and cleaning up:</p>	<p>Avoid contact with skin and eyes. Avoid ingestion of material and inhalation of vapours. For personal protection see Section 8.</p> <p>Prevent further leakage or spillage if safe to do so. Do not flush into surface water or sanitary sewer system. Do not allow to enter drains or watercourses. If contamination of water courses is unavoidable, report to the Police and the Department of Water/Environmental Affairs immediately.</p> <p>Wear protective clothing. Clear area of unprotected personnel. Contain and absorb liquid spills with an inert material (e.g. vermiculite, earth etc.), remove by scoop or vacuum. Use approved industrial vacuum cleaner for removal and place in waste containers. Wash area with water and detergent and absorb with further inert material. Heavily contaminated soil layers have to be dug out down to clean soil. If spill does enter waterways contact the local authority. Spilled product cannot be re-used and must be disposed of by incineration or disposal in a chemical waste disposal facility. If containers cannot be recycled, they should be disposed of together with the waste chemical.</p>

7) HANDLING & STORAGE:	
<p>Precautions for Safe Handling:</p> <p>Conditions for Safe Storage, including any incompatibilities:</p>	<p>Avoid skin and eye contact and inhalation of spray mist. Wash hands before breaks and immediately after handling the product. When using, do not eat, drink or smoke. Wash contaminated clothing before re-use. APPROVED HANDLER: This product must be under the control of an approved handler when applied in a wide dispersive manner; or used by a commercial contractor.</p> <p>Store in original container tightly closed and in a locked, dry, cool area away from foodstuffs, fertilisers and seeds. Keep away from children or uninformed persons. Avoid extreme temperatures.</p>
8) EXPOSURE CONTROL / PERSONAL PROTECTION:	
<p>Appropriate Engineering Controls:</p> <p>Control Parameters: Occupational exposure limits:</p> <p><u>PERSONAL PROTECTIVE EQUIPMENT:</u></p> <p>Clothing:</p> <p>Respiratory protection:</p> <p>Gloves:</p> <p>Eye protection:</p> <p>Emergency eye wash:</p>	<p>It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.</p> <p>NA</p> <p>Consult supplier to confirm that the equipment is suitable.</p> <p>Employee must wear appropriate protective (impervious) clothing and equipment to prevent skin contact with this substance.</p> <p>Wear respirator if ventilation is inadequate.</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance.</p> <p>The use of safety goggles with side shields or a face shield is recommended.</p> <p>Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash fountain or appropriate alternative within the immediate work area for emergency use.</p>
9) PHYSICAL & CHEMICAL PROPERTIES:	
Appearance:	Off white to Brownish Liquid
Odour:	Characteristic odour
Solubility:	Soluble in water
pH:	8.0
Odour threshold:	Not available
Melting point / Freezing point	Not available
Initial boiling point and boiling range	Not available
Flash point:	Not applicable
Evaporation rate:	Not available
Flammability (solid, gas)	Not available
Upper/ lower flammability or explosive limits:	Not available
Vapour pressure:	Not available
Vapour density:	Not available
Relative density:	1.04
Partition coefficient: n-octanol/water	Not available
Auto-ignition temperature:	Not available
Decomposition Temperature:	Not available
Viscosity:	Not available
10) STABILITY & REACTIVITY:	
<p>Reactivity:</p> <p>Chemical Stability:</p> <p>Possibility of hazardous reactions:</p>	<p>Stable under normal conditions.</p> <p>When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture.</p> <p>None known.</p>

Conditions to avoid:	Avoid extreme temperatures.
Incompatible materials:	None known.
Hazardous decomposition product(s):	When heated to decomposition, irritant or dangerous fumes may be emitted.
11) TOXICOLOGICAL INFORMATION:	
Acute Toxicity:	
Oral:	LD ₅₀ (Rat): > 5,000 mg/kg.
Dermal:	LD ₅₀ (Rat): > 5,000 mg/kg
Inhalation:	LC ₅₀ (Rat, 4 hours): >4,977 mg/m ³ air.
Skin Corrosion/Irritation:	Non-irritating
Serious Eye Damage/Irritation:	Non-irritating
Respiratory or Skin Sensitization:	Did not cause sensitization on laboratory animals.
Germ Cell Mutagenicity:	May cause genetic defects.
Carcinogenicity:	No data available.
Reproductive Toxicity:	May damage fertility or the unborn child.
STOT-SE:	May cause drowsiness and dizziness.
STOT-RE:	May cause damage to organs through prolonged or repeated exposure.
Aspiration Hazard:	No data available.
12) ECOLOGICAL INFORMATION:	
Ecotoxicity:	
Birds:	Acute oral LD ₅₀ for bobwhite quail >2 000 mg/kg. LC ₅₀ (5 d) for bobwhite quail and mallard ducks >5000 mg/kg diet.
Fish:	LC ₅₀ (96 h) for rainbow trout >22.7, bluegill sunfish >20.7 mg/l.
Daphnia:	EC ₅₀ (48 h) > 19.8 mg/l.
Algae:	E _{br} /C ₅₀ (72 h) for <i>Selenastrum capricornutum</i> > 10.0 mg/l.
Worms:	Worms : LC ₅₀ (14 d) for <i>Eisenia foetida</i> > 1 000 mg/kg dry soil.
Bees:	LC ₅₀ (14 d) for <i>Eisenia foetida</i> >1000 mg/kg dry soil. (oral) >199 µg/bee; (contact) >200 µg/bee.
Persistence and Degradability:	Iprovalicarb was thoroughly degraded in soil under aerobic conditions, ultimately forming CO ₂ ; DT ₅₀ (lab.) 2–30 d; DT ₅₀ (field) 1–17 d.
Bio-accumulative Potential:	None known.
Mobility in Soil:	Mean K _{oc} (5 soils) 106 ml/g; iprovalicarb can be classified as being a substance of intermediate to low mobility.
13) DISPOSAL CONSIDERATIONS:	
Waste Disposal:	In accordance with local and national regulations. Must be incinerated or disposed of by a chemical waste disposal facility holding a permit delivered by the competent authorities. Do not contaminate water, food or feed by disposal. Wastes resulting from the use of this product may be disposed of on site or at an approved chemicals waste disposal facility.
Container Disposal:	Refer to the product label for instructions. If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. If containers cannot be recycled, they should be disposed of together with the waste chemical. DO NOT REUSE THE CONTAINER FOR ANY OTHER PURPOSE. Do not transport if this container is damaged or leaking.
14) TRANSPORTATION INFORMATION:	
Road Transport ADR / IRD:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Iprovalicarb) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.
Maritime Transport IMDG / IMO:	UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Iprovalicarb) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Marine Pollutant

	<p>Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.</p> 
Air Transport ICAO / IATA:	<p>UN NUMBER: 3082 UN Proper Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Iprovalicarb) Transport Hazard Class: 9 Miscellaneous Dangerous Goods Packaging group: III Labelling no: 9 Environmental Hazards: Not applicable Special Precautions for User: Read safety instructions, SDS and emergency procedures before handling.</p>
Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):	No transport in bulk according to the IBC Code.
15) REGULATORY INFORMATION:	
Safety, health and environmental regulations/legislation specific for the substance/mixture:	For the user of this plant-protective product applies: 'To avoid risks to man and the environment, comply with the instructions for use.' (Directive 1999/45/EC, Article 10, No. 1.2)
Chemical Safety Assessment:	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.
16) OTHER INFORMATION:	
<p>All information and instructions provided in this Safety Data Sheet (SDS) are based on the current state of scientific and technical knowledge at the date indicated on the present SDS and are presented in good faith and believed to be correct. This information applies to the product as such. In case of new formulations or mixes, it is necessary to ascertain that a new danger will not appear.</p> <p>It is the responsibility of persons in receipt of this SDS to ensure that the information contained herein is properly read and understood by all people who may use, handle, dispose or in any way come in contact with this product. If the recipient subsequently produces formulation(s) containing this product, it is the recipient's sole responsibility to ensure the transfer of all relevant information from this SDS to their own SDS. The information contained herein is provided in good faith but makes no representation as to its comprehensiveness or accuracy. A properly trained person using this product intends this document only as a guide to the appropriate handling of the material. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose.</p> <p>MERIDIAN AGRITECH MAKES NO REPRESENTATION OR WARRANTIES, EITHER EXPRESSES OR IMPLIED, INCLUDING, WITHOUT LIMITATION, ANY WARRANTIES OF MERCHANT ABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MERIDIAN AGRITECH (PTY) LTD WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.</p> <p>Date of issue: 08/07/2014 Date of revision: 27/05/2019</p> <p>Abbreviations and acronyms:</p> <ol style="list-style-type: none"> 1. CAS number: Chemical Abstracts Service number. 2. CLP: Classification, Labelling, Packaging. 3. LD₅₀: Lethal Dose for 50% of the test population. 4. LC₅₀: Lethal Concentration for 50% of the test population. 5. DT₅₀: Half-life. 6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals). <p>Literature References:</p> <ul style="list-style-type: none"> • GHS: www.ccohs.ca/oshanswers/chemicals/ghs.html • ECHA: https://echa.europa.eu/search-chemicals 	