


## Safety Data Sheet

# SOVRIN FLO


L7601 (Act No 36 of 1947)  
N – AR 1534

1) PRODUCT AND COMPANY IDENTIFICATION:	
Product name:	SOVRIN FLO
Other means of identification	Dimethomorph 500 SC
Chemical Name:	(E,Z)-4-[3-(4-chlorophenyl)-3-(3,4-dimethoxyphenyl)acryloyl]morpholine (IUPAC)
Recommended use:	Fungicide
Restrictions on use:	Agriculture
UN Number	Not regulated
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:	GHS Oral Category 5 GHS Dermal Category 5 GHS Inhalation Category 3 Skin Irritation Category 3 Aquatic Chronic Category 2
Label Elements: Globally Harmonized System, EU (GHS):	<p><b>Pictograms:</b></p>  <p>Signal word: Warning</p> <p><b>Hazard Statements:</b> H315: Causes skin irritation. H411: Toxic to aquatic life with long-lasting effects.</p> <p><b>Precautionary Statements:</b> P201: Obtain special instructions before use. P202: Do not handle until all safety precautions have been read and understood. P262: Do not get in eyes, on skin, or on clothing. 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. P362+P364: Take off contaminated clothing and wash it before reuse. P405: Store locked up.</p> <p>According to Directive 67/548/EEC No. 1272/2008 [CLP]</p>

		<b>Hazard Symbol(s):</b> N – dangerous for the environment  <b>R-phrase(s):</b> <b>R38:</b> Irritating to skin. <b>R51/53:</b> Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  <b>S-phrase(s):</b> <b>S1/2:</b> Keep locked up and out of the reach of children. <b>S7:</b> Keep container tightly closed. <b>S13:</b> Keep away from food, drink and animal feeding stuffs. <b>S18:</b> Handle and open container with care. <b>S20/21:</b> When using, do not eat drink or smoke. <b>S24/25:</b> Avoid contact with skin and eyes. <b>S29/56:</b> Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. <b>S36/37/39:</b> Wear suitable protective clothing, gloves and eye/face protection. <b>S35:</b> This material and its container must be disposed of in a safe way. <b>S57:</b> Use appropriate containment to avoid environmental contamination. <b>S60:</b> This material and its container must be disposed of as a hazardous waste.		
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)
Dimethomorph	500 g/L	110488-70-5	404-200-2	Aquatic Chronic Cat. 2 (H411)
Soprophor FL	4.5%	105362-40-1	600-650-0	Skin Irrit. Cat. 2 (H315) Eye Irrit. Cat. 2 (H319)
4) FIRST AID MEASURES:				
<b>Description of First-Aid Measures:</b>				
<b>Inhalation:</b>		Remove victim to well ventilated area and loosen clothing around the neck. If breathing is difficult, give oxygen. If breathing has stopped, perform artificial respiration. Get medical attention if necessary.		
<b>Skin contact:</b>		Strip off all contaminated clothing and thoroughly wash body with soap and water. Persons providing first aid must wear gloves to avoid self-contamination. Get medical attention if necessary.		
<b>Eye contact:</b>		Strip off all contaminated clothing and thoroughly wash body with soap and water. Persons providing first aid must wear gloves to avoid self-contamination. Get medical attention if necessary.		
<b>Ingestion:</b>		Flush eyes with clean water for at least 15 minutes holding eyelids apart and call a physician immediately. Use safety goggles.		
<b>Most important symptoms and effects, both acute and delayed:</b>		If swallowed <b>DO NOT</b> induce vomiting unless advised to do so by a medical practitioner. If vomiting occurs spontaneously, keep airways clear. Never give anything per mouth to an unconscious person. Seek medical attention immediately and show this data sheet.		
<b>Indication of any immediate medical attention and special treatment needed:</b>		None known		
		Symptomatic treatment and supportive therapy as indicated.		
5) FIRE-FIGHTING MEASURES:				
<b>Extinguishing Media:</b>		Will not burn readily. For small fires: Foam, carbon dioxide, dry powder or halon extinguisher. Large fires: Foam or water-fog. Water can be used for cooling of unaffected stock but avoid the accumulation of polluted run-off from the site. Contain fire control water for later disposal.		
<b>Unsuitable Extinguishing Media:</b>				
<b>Specific Hazards arising from the substance/mixture:</b>				
<b>Fire Fighting:</b>		Do not use a high-volume water jet due to contamination risk.		

<p><b>Protective clothing:</b></p>	<p>Fire may produce irritating or poisonous vapours, mists or other products of combustion.</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.</p> <p>Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Contain fire control agents for later disposal.</p> <p>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>On small fires: If the area is heavily exposed to fire and if conditions permit, let the fire burn itself out since water may increase the area contaminated. Cool containers/tanks with spray water.</p> <p>Fire-fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus</p>
<p><b>6) ACCIDENTAL RELEASE MEASURES:</b></p>	
<p><b>Personal precautions, protective equipment and emergency procedures:</b></p> <p><b>Environmental precautions:</b></p> <p><b>Methods and material for containment and cleaning up:</b></p>	<p>Wear personal protective clothing according to operator safety during removal of spillage. Wear eye protection, chemically resistant gloves, boots and coveralls.</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>Soak up with an inert absorptive material such as sand, soil, diatomaceous earth, etc. Prevent product from spreading and collect into specially marked, tightly closing containers. Treat contaminated areas with water containing soda or detergent. Dike spill area and collect washings to avoid any contamination of surface and ground water, water supplies and drains. Heavily contaminated soil layers should be removed and disposed of in an approved way. Rinse the spill area and any tools or implements several times with soapy water. Contain and absorb the rinsate with inert absorbents and place into the same disposal container as the spill material. Notify regulatory authorities if necessary.</p> <p>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>
<p><b>7) HANDLING &amp; STORAGE:</b></p>	
<p><b>Precautions for Safe Handling:</b></p> <p><b>Conditions for Safe Storage, including any incompatibilities:</b></p>	<p>Avoid skin and eye contact and inhalation of spray mist.</p> <p>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>BEWARE: Spray drift hazard. Apply this product carefully. Spray drift may cause serious damage to other desirable plants.</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. Do not contaminate water, food or feed by storage or disposal.</p>
<p><b>8) EXPOSURE CONTROL / PERSONAL PROTECTION:</b></p>	

<p><b>Appropriate Engineering Controls:</b></p> <p><b>Control Parameters: Occupational exposure limits:</b></p> <p><b><u>PERSONAL PROTECTIVE EQUIPMENT:</u></b></p> <p><b>Clothing:</b></p> <p><b>Respiratory protection:</b></p> <p><b>Gloves:</b></p> <p><b>Eye protection:</b></p> <p><b>Emergency eye wash:</b></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>Employee must wear appropriate protective (impervious) clothing and full-face respirator to prevent skin contact with this substance.</p> <p>NA</p> <p>Employee must wear appropriate chemical-resistant gloves to prevent contact with this substance</p> <p>The use of safety goggles or full-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>
<b>9) PHYSICAL &amp; CHEMICAL PROPERTIES:</b>	
<b>Appearance:</b>	White Liquid
<b>Odour:</b>	Characteristic
<b>Solubility:</b>	Suspends in water
<b>pH:</b>	7.2
<b>Odour threshold:</b>	Not available
<b>Melting point / Freezing point</b>	Not available
<b>Initial boiling point and boiling range</b>	Not available
<b>Flash point:</b>	Not applicable
<b>Evaporation rate:</b>	Not available
<b>Flammability (solid, gas)</b>	Not flammable
<b>Upper/ lower flammability or explosive limits:</b>	Not available
<b>Vapour pressure:</b>	Not available
<b>Vapour density:</b>	Not available
<b>Relative density:</b>	1.12
<b>Partition coefficient: n-octanol/water</b>	Not available
<b>Auto-ignition temperature:</b>	Not available
<b>Decomposition Temperature:</b>	Not available
<b>Viscosity:</b>	Not available
<b>10) STABILITY &amp; REACTIVITY:</b>	
<b>Reactivity:</b>	Stable under normal conditions.
<b>Chemical Stability:</b>	When stored appropriately this product should show no significant degradation for 2 years from the date of manufacture. Incompatible or can react with bases. Thermally and chemically stable.
<b>Possibility of hazardous reactions:</b>	None known.
<b>Conditions to avoid:</b>	Heat, flames, sparks and other sources of ignition.
<b>Incompatible materials:</b>	No data available
<b>Hazardous decomposition product(s):</b>	Heating can release vapours poisonous and corrosive fumes.
<b>11) TOXICOLOGICAL INFORMATION:</b>	
<b>Acute Toxicity:</b>	
<b>Oral:</b>	LD <sub>50</sub> (Rat): > 3,000 mg/kg.
<b>Dermal:</b>	LD <sub>50</sub> (Rat): > 5,000 mg/kg
<b>Inhalation:</b>	LC <sub>50</sub> (Rat, 4 hours): >4.2 mg/L air.
<b>Skin Corrosion/Irritation:</b>	Not an irritant, rabbit.
<b>Serious Eye Damage/Irritation:</b>	Not an irritant, rabbit.
<b>Respiratory or Skin Sensitization:</b>	Animal test did not cause sensitization by skin contact, guinea pig.
<b>Germ Cell Mutagenicity:</b>	No data available.
<b>Carcinogenicity:</b>	No data available.

<b>Reproductive Toxicity:</b>	No data available.
<b>STOT-SE:</b>	No data available.
<b>STOT-RE:</b>	No data available.
<b>Aspiration Hazard:</b>	No data available.
<b>12) ECOLOGICAL INFORMATION: BASED ON TECHNICAL MATERIAL</b>	
<b>Ecotoxicity:</b>	
<b>Birds:</b>	LD50 Bobwhite quail & Mallard duck > 2000 mg/kg. Dietary LC50 (5d) Bobwhite quail and Mallard ducklings > 5000 mg/kg diet.
<b>Fish:</b>	LC50 (96h) Rainbow trout > 6 mg/L, Bluegill sunfish 25 mg/L.
<b>Daphnia:</b>	EC50 (48h) > 10 mg/L.
<b>Algae:</b>	EC50 (96h) <i>Scenedesmus subspicatus</i> 29.2 mg/L.
<b>Worms:</b>	EC <sub>50</sub> earthworms > 1000 mg/kg soil.
<b>Bees:</b>	Oral LD50 (48h) >30 µg/bee, Contact >100 µg/bee.
<b>Persistence and Degradability:</b>	Aerobic soil metabolism DT <sub>50</sub> 41–96 days (20 °C). Field dissipation DT <sub>50</sub> 34–53 days. Water/sediment DT <sub>50</sub> 5–15 days, 16–59 days (total system).
<b>Bio-accumulative Potential:</b>	2.75
<b>Mobility in Soil:</b>	Moderately mobile, K <sub>d</sub> 2.09–11.67 mL/g, K <sub>oc</sub> 290–566.
<b>13) DISPOSAL CONSIDERATIONS:</b>	
<b>Waste Disposal:</b>	Waste should not be re-used. Do not contaminate water, food or feed by disposal. Open dumping or burning of this pesticide is prohibited. Wastes resulting from the use of this product may be disposed of by incineration or at an approved chemical waste disposal facility.
<b>Container Disposal:</b>	Refer to the product label for instructions. Container Refilling and Disposal: If the container is to be refilled, do not rinse with any material or introduce any pesticide other than this product. Add rinsing to the contents of the spray tank before destroying the container in the prescribed manner. <b>DO NO REUSE THE CONTAINER FOR ANY OTHER PURPOSE.</b> If containers cannot be recycled, they should be disposed of together with the waste chemical.
<b>14) TRANSPORTATION INFORMATION:</b>	
<b>Road Transport ADR / IRD:</b>	UN NUMBER: Not regulated UN Proper Shipping name: NA Transport Hazard Class: Not classified as hazardous for transport. Packaging group: NA Labelling no: NA Environmental Hazards: Not applicable Special Precautions for User: NA
<b>Maritime Transport IMDG / IMO:</b>	UN NUMBER: Not regulated UN Proper Shipping name: NA Transport Hazard Class: Not classified as hazardous for transport. Packaging group: NA Labelling no: NA Environmental Hazards: Marine pollutant Special Precautions for User: NA  
<b>Air Transport ICAO / IATA:</b>	UN NUMBER: Not regulated UN Proper Shipping name: NA Transport Hazard Class: Not classified as hazardous for transport. Packaging group: NA Labelling no: NA Environmental Hazards: Not applicable Special Precautions for User: NA
<b>Transport in Bulk (according to Annex II of MARPOL 73/78 and the IBC Code):</b>	No transport in bulk according to the IBC Code.
<b>15) REGULATORY INFORMATION:</b>	
<b>Safety, health and environmental regulations/legislation specific for the substance/mixture:</b>	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)
<b>Chemical Safety Assessment:</b>	Advice on product handling can be found in sections 7 and 8 of this safety data sheet.

## 16) OTHER INFORMATION :

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.

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### Abbreviations and acronyms:

1. CAS number: Chemical Abstracts Service number.
2. CLP: Classification, Labelling, Packaging.
3. LD<sub>50</sub>: Lethal Dose for 50% of the test population.
4. LC<sub>50</sub>: Lethal Concentration for 50% of the test population.
5. DT<sub>50</sub>: Half-life.
6. GHS: Globally Harmonised System (of Classification and Labelling of Chemicals).

### Literature References:

- GHS: [www.ccohs.ca/oshanswers/chemicals/ghs.html](http://www.ccohs.ca/oshanswers/chemicals/ghs.html)
- ECHA: <https://echa.europa.eu/search-chemicals>