

## Safety data sheet

### according to 1907/2006/EC, Article 31

Printing date 31.01.2024

Version number 1.3 (replaces version 1.2)

Revision: 31.01.2024

## 1 Identification of the substance/mixture and of the company/undertaking

- **Product identifier**
- **Trade name:** WARLOCK 450 WG
- **UFI:** A1Y2-W0M2-600J-54YS
- **Relevant identified uses of the substance or mixture and uses advised against**  
No further relevant information available.
- **Application of the substance / the mixture** Fungicide
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**  
Cropthetics Ltd  
Third Floor, 126-134 Baker Street, London  
W1U 6UE, UK  
info@jtagro-cropthetics.com  
Tel: +44 1628 272102, for all calls, 9am - 5pm GMT
- **Further information obtainable from:** product safety department
- **Emergency telephone number:**  
Posion center of the Charité Berlin: +49 30 19240  
E-Mail: giftnotruf@charite.de

## 2 Hazards identification

- **Classification of the substance or mixture**
- **Classification according to Regulation (EC) No 1272/2008**



GHS08 health hazard

Repr. 2	H361fd	Suspected of damaging fertility. Suspected of damaging the unborn child.
STOT RE 2	H373	May cause damage to the thymus and the blood through prolonged or repeated exposure.



GHS09 environment

Aquatic Chronic 1	H410	Very toxic to aquatic life with long lasting effects.
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GHS07

Eye Irrit. 2	H319	Causes serious eye irritation.
Skin Sens. 1	H317	May cause an allergic skin reaction.

- **Label elements**
- **Labelling according to Regulation (EC) No 1272/2008**  
The product is classified and labelled according to the GB CLP regulation.

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· **Hazard pictograms**

GHS07 GHS08 GHS09

· **Signal word** Warning· **Hazard-determining components of labelling:**

Cymoxanil

Sulfuric acid, mono-C12-14-alkyl esters, sodium salts

· **Hazard statements**

H319 Causes serious eye irritation.

H317 May cause an allergic skin reaction.

H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.

H373 May cause damage to the thymus and the blood through prolonged or repeated exposure.

H410 Very toxic to aquatic life with long lasting effects.

· **Precautionary statements**

P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.

P302+P352 IF ON SKIN: Wash with plenty of water/mydło

P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P337+P313 If eye irritation persists: Get medical advice/attention.

P391 Collect spillage.

P501 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Other hazards**· **Results of PBT and vPvB assessment**· **PBT:** Not applicable.· **vPvB:** Not applicable.

### 3 Composition/information on ingredients

· **Mixtures**· **Description:** Mixture of substances listed below with nonhazardous additions.· **Dangerous components:**

CAS: 57966-95-7 EINECS: 261-043-0	Cymoxanil ⚠ Repr. 2, H361fd; STOT RE 2, H373; ⚠ Aquatic Acute 1, H400; Aquatic Chronic 1, H410; ⚠ Acute Tox. 4, H302; Skin Sens. 1, H317	25-50%
	Mixture of potassium polycarboxylate and ammonium distyryl-phenyl ether sulphate ⚠ Eye Irrit. 2, H319; Aquatic Chronic 3, H412	≥10-<25%
CAS: 85586-07-8 EINECS: 287-809-4 Reg.nr.: 01-2119489463-28-XXXX	Sulfuric acid, mono-C12-14-alkyl esters, sodium salts ⚠ Eye Dam. 1, H318; ⚠ Acute Tox. 4, H302; Skin Irrit. 2, H315; Aquatic Chronic 3, H412 ATE: LD50 oral: 500 mg/kg	≥3-<10%
CAS: 110-17-8 EINECS: 203-743-0	Fumaric acid ⚠ Eye Irrit. 2, H319	≥2.5-<10%

· **Additional information:** For the wording of the listed hazard phrases refer to section 16.

### 4 First aid measures

· **Description of first aid measures**· **General information:**

Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

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- **After inhalation:**  
Take affected persons into fresh air and keep quiet.  
Supply fresh air and to be sure call for a doctor.  
In case of unconsciousness place patient stably in side position for transportation.
- **After skin contact:**  
Remove soaked clothing immediately.  
If skin irritation continues, consult a doctor.  
Immediately wash with water and soap and rinse thoroughly.
- **After eye contact:**  
Remove contact lenses.  
Rinse opened eye for several minutes under running water. If symptoms persist, consult a doctor.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:** No antidote, symptomatic treatment.
- **Most important symptoms and effects, both acute and delayed**  
No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**  
No further relevant information available.

## 5 Firefighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire extinguishing methods suitable to surrounding conditions.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

## 6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:**  
Do not allow product to reach sewage system or any water course.  
Inform respective authorities in case of seepage into water course or sewage system.  
Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**  
Dispose contaminated material as waste according to section 13.
- **Reference to other sections**  
See Section 7 for information on safe handling.  
See Section 8 for information on personal protection equipment.  
See Section 13 for disposal information.

## 7 Handling and storage

- **Precautions for safe handling** No special precautions are necessary if used correctly.
- **Information about fire - and explosion protection:** No special measures required.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**  
· *Requirements to be met by storerooms and receptacles:* No special requirements.  
· *Information about storage in one common storage facility:* Not required.  
· *Further information about storage conditions:* Keep container tightly sealed.
- *Storage class (TRGS):* 11
- **Specific end use(s)** No further relevant information available.

## 8 Exposure controls/personal protection

- **Control parameters**
- **Ingredients with limit values that require monitoring at the workplace:**  
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.

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- *Additional information:* The lists valid during the making were used as basis.
- **Exposure controls**
- **Appropriate engineering controls** No further data; see section 7.
- **Individual protection measures, such as personal protective equipment**
- *General protective and hygienic measures:*
  - Keep away from foodstuffs, beverages and feed.
  - Immediately remove all soiled and contaminated clothing
  - Wash hands before breaks and at the end of work.
  - Store protective clothing separately.
  - Avoid contact with the eyes.
  - Avoid contact with the eyes and skin.
- *Respiratory protection:*
  - In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use self-contained respiratory protective device.
- *Hand protection*



Protective gloves

- *Material of gloves*
  - The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- *Penetration time of glove material*
  - The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.
- *Eye/face protection*



Tightly sealed goggles

## 9 Physical and chemical properties

- | Information on basic physical and chemical properties             |                 |
|---|-----------------|
| <b>General Information</b>  |                 |
| · <i>Physical state</i>   | Solid           |
| · <i>Colour:</i>  | Beige           |
| · <i>Odour:</i>   | Characteristic  |
| · <i>Odour threshold:</i>   | Not determined. |
| · <i>Melting point/freezing point:</i>                            | Undetermined.   |
| · <i>Boiling point or initial boiling point and boiling range</i> | Undetermined.   |
| · <i>Flammability</i>   | Not determined. |
| · <i>Lower and upper explosion limit</i>                          |                 |
| · <i>Lower:</i>   | Not determined. |
| · <i>Upper:</i>   | Not determined. |
| · <i>Flash point:</i>   | Not applicable. |
| · <i>Auto-ignition temperature:</i>                               | >267 °C         |
| · <i>Decomposition temperature:</i>                               | Not determined. |
| · <i>pH at 20 °C</i>  | 5.41 (1%)       |
| · <i>Viscosity:</i>   |                 |
| · <i>Kinematic viscosity</i>                                      | Not applicable. |
| · <i>Dynamic:</i>   | Not applicable. |
| · <i>Solubility</i>   |                 |
| · <i>water:</i>   | Soluble.        |
| · <i>Partition coefficient n-octanol/water (log value)</i>        | Not determined. |

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· Vapour pressure:	Not applicable.
· Density and/or relative density	
· Density at 20 °C:	0.88 g/cm <sup>3</sup>
· Relative density	Not determined.
· <b>Density (@15°C)</b>	Not determined.
· Vapour density	Not applicable.
· Particle characteristics	
See section 3.	
· <b>Other information</b>	
· <b>Appearance:</b>	
· Form:	Granulate
· <b>Important information on protection of health and environment, and on safety.</b>	
· Ignition temperature:	Product is not selfigniting.
· Explosive properties:	Product does not present an explosion hazard.
· Solvent content:	
· Water:	30.0 %
· <b>Change in condition</b>	
· Evaporation rate	Not applicable.
· <b>Information with regard to physical hazard classes</b>	
· Explosives	Void
· Flammable gases	Void
· Aerosols	Void
· Oxidising gases	Void
· Gases under pressure	Void
· Flammable liquids	Void
· Flammable solids	Void
· Self-reactive substances and mixtures	Void
· Pyrophoric liquids	Void
· Pyrophoric solids	Void
· Self-heating substances and mixtures	Void
· Substances and mixtures, which emit flammable gases in contact with water	Void
· Oxidising liquids	Void
· Oxidising solids	Void
· Organic peroxides	Void
· Corrosive to metals	Void
· Desensitised explosives	Void

## 10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:**  
No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

## 11 Toxicological information

- **Information on hazard classes as defined in Regulation (EC) No 1272/2008**
- **Acute toxicity** Based on available data, the classification criteria are not met.

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· *LD/LC50 values relevant for classification:*

Oral	LD50	>2,000 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

**57966-95-7 Cymoxanil**

Oral	LD50	960 mg/kg (rat)
Dermal	LD50	>2,000 mg/kg (rat)

**110-17-8 Fumaric acid**

Oral	LD50	9,300 mg/kg (rat)
Dermal	LD50	20,000 mg/kg (rabbit)

- **Skin corrosion/irritation** Based on available data, the classification criteria are not met.
- **Serious eye damage/irritation** Causes serious eye irritation.
- **Respiratory or skin sensitisation** May cause an allergic skin reaction.
- **Germ cell mutagenicity** Based on available data, the classification criteria are not met.
- **Carcinogenicity** Based on available data, the classification criteria are not met.
- **Reproductive toxicity** Suspected of damaging fertility. Suspected of damaging the unborn child.
- **STOT-single exposure** Based on available data, the classification criteria are not met.
- **STOT-repeated exposure**  
May cause damage to the thymus and the blood through prolonged or repeated exposure.
- **Aspiration hazard** Based on available data, the classification criteria are not met.
- **Information on other hazards**

· **Endocrine disrupting properties**

None of the ingredients is listed.

**12 Ecological information**· **Toxicity**· **Aquatic toxicity:****57966-95-7 Cymoxanil**

Inhalative	LD50	>5 mg/kg (rat)
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- **Persistence and degradability** No further relevant information available.
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Endocrine disrupting properties**  
The product does not contain substances with endocrine disrupting properties.
- **Other adverse effects** No further relevant information available.
- **Additional ecological information:**
- **General notes:**  
Water hazard class 3 (German Regulation) (Self-assessment): extremely hazardous for water  
Do not allow product to reach ground water, water course or sewage system, even in small quantities.  
Danger to drinking water if even extremely small quantities leak into the ground.  
Also poisonous for fish and plankton in water bodies.

**13 Disposal considerations**· **Waste treatment methods**· **Recommendation**

Must not be disposed together with household garbage. Do not allow product to reach sewage system.

· **European waste catalogue**

HP4	Irritant - skin irritation and eye damage
HP5	Specific Target Organ Toxicity (STOT)/Aspiration Toxicity

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HP6	Acute Toxicity
HP10	Toxic for reproduction
HP13	Sensitising
HP14	Ecotoxic

- **Uncleaned packaging:**
- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agents:** Water, if necessary together with cleansing agents.

### \* 14 Transport information

<ul style="list-style-type: none"> <li>· <b>UN number or ID number</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	UN3077
<ul style="list-style-type: none"> <li>· <b>UN proper shipping name</b></li> <li>· <b>ADR</b></li> <li>· <b>IMDG</b></li> <li>· <b>IATA</b></li> </ul>	3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cymoxanil) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cymoxanil), MARINE POLLUTANT ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Cymoxanil)
<ul style="list-style-type: none"> <li>· <b>Transport hazard class(es)</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul> <div style="display: flex; align-items: center;">   </div> <ul style="list-style-type: none"> <li>· <b>Class</b></li> <li>· <b>Label</b></li> </ul>	9 Miscellaneous dangerous substances and articles. 9
<ul style="list-style-type: none"> <li>· <b>Packing group</b></li> <li>· <b>ADR, IMDG, IATA</b></li> </ul>	III
<ul style="list-style-type: none"> <li>· <b>Environmental hazards:</b></li> <li>· <b>Marine pollutant:</b></li> <li>· <b>Special marking (ADR):</b></li> <li>· <b>Special marking (IATA):</b></li> </ul>	Symbol (fish and tree) Symbol (fish and tree) Symbol (fish and tree)
<ul style="list-style-type: none"> <li>· <b>Special precautions for user</b></li> <li>· <b>Hazard identification number (Kemler code):</b></li> <li>· <b>EMS Number:</b></li> <li>· <b>Stowage Category</b></li> <li>· <b>Stowage Code</b></li> </ul>	Warning: Miscellaneous dangerous substances and articles. 90 F-A,S-F A SW23 When transported in BK3 bulk container, see 7.6.2.12 and 7.7.3.9.
<ul style="list-style-type: none"> <li>· <b>Maritime transport in bulk according to IMO instruments</b></li> </ul>	Not applicable.
<ul style="list-style-type: none"> <li>· <b>Transport/Additional information:</b></li> </ul>	
<ul style="list-style-type: none"> <li>· <b>ADR</b></li> <li>· <b>Limited quantities (LQ)</b></li> <li>· <b>Excepted quantities (EQ)</b></li> <li>· <b>Transport category</b></li> <li>· <b>Tunnel restriction code</b></li> </ul>	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g 3 (-)

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<ul style="list-style-type: none"> <li>· <b>IMDG</b></li> <li>· <i>Limited quantities (LQ)</i></li> <li>· <i>Excepted quantities (EQ)</i></li> </ul>	5 kg Code: E1 Maximum net quantity per inner packaging: 30 g Maximum net quantity per outer packaging: 1000 g
<ul style="list-style-type: none"> <li>· <b>UN "Model Regulation":</b></li> </ul>	UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (CYMOXANIL), 9, III

## 15 Regulatory information

<ul style="list-style-type: none"> <li>· <b>Safety, health and environmental regulations/legislation specific for the substance or mixture: (Substances not listed)</b></li> </ul>
None of the ingredients is listed.
<ul style="list-style-type: none"> <li>· <b>Directive 2004/42/EC</b></li> <li>· <b>Directive 2012/18/EU</b></li> <li>· <i>Named dangerous substances - ANNEX I</i> None of the ingredients is listed.</li> <li>· <i>Seveso category E1</i> Hazardous to the Aquatic Environment</li> <li>· <i>Qualifying quantity (tonnes) for the application of lower-tier requirements</i> 100 t</li> <li>· <i>Qualifying quantity (tonnes) for the application of upper-tier requirements</i> 200 t</li> <li>· <b>REGULATION (EU) 2019/1148</b></li> </ul>
<ul style="list-style-type: none"> <li>· <i>Annex I - RESTRICTED EXPLOSIVES PRECURSORS (Upper limit value for the purpose of licensing under Article 5(3))</i></li> </ul>
None of the ingredients is listed.
<ul style="list-style-type: none"> <li>· <i>Annex II - REPORTABLE EXPLOSIVES PRECURSORS</i></li> </ul>
None of the ingredients is listed.
<ul style="list-style-type: none"> <li>· <i>Regulation (EC) No 273/2004 on drug precursors</i></li> </ul>
None of the ingredients is listed.
<ul style="list-style-type: none"> <li>· <i>Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors</i></li> </ul>
None of the ingredients is listed.
<ul style="list-style-type: none"> <li>· <b>Chemical safety assessment:</b> A Chemical Safety Assessment has not been carried out.</li> </ul>

## 16 Other information

### · Disclaimer

This safety data sheet contains only safety relevant information. The information is based on the state of our knowledge at the time of revision, however, it does not constitute a guarantee of product properties, product information or product specifications and does not establish a contractual legal relationship. This document is only valid in its unchanged form. In the event of changes by third parties, the exhibitor accepts no responsibility for form and content or for any damages or claims arising from such changes. The information is not transferable to other products. If the product named in this safety data sheet is mixed, blended or processed with other materials or is subjected to processing, the information in this safety data sheet cannot be transferred to the new material produced in this way, unless expressly stated otherwise. The data sheet does not release the user from the obligation to ensure that he acts in accordance with all regulations in connection with his activity.

### · Relevant phrases

- H302 Harmful if swallowed.
- H315 Causes skin irritation.
- H317 May cause an allergic skin reaction.
- H318 Causes serious eye damage.
- H319 Causes serious eye irritation.
- H361fd Suspected of damaging fertility. Suspected of damaging the unborn child.
- H373 May cause damage to organs through prolonged or repeated exposure.
- H400 Very toxic to aquatic life.
- H410 Very toxic to aquatic life with long lasting effects.

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H412 Harmful to aquatic life with long lasting effects.

· **Department issuing SDS:** Product Safety Department· **Contact:** MSDS authorized Person· **Version number of previous version:** 1.2· **Abbreviations and acronyms:**

ADR: Accord relatif au transport international des marchandises dangereuses par route (European Agreement Concerning the International Carriage of Dangerous Goods by Road)

IMDG: International Maritime Code for Dangerous Goods

IATA: International Air Transport Association

GHS: Globally Harmonised System of Classification and Labelling of Chemicals

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

LC50: Lethal concentration, 50 percent

LD50: Lethal dose, 50 percent

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

ATE: Acute toxicity estimate values

Acute Tox. 4: Acute toxicity – Category 4

Skin Irrit. 2: Skin corrosion/irritation – Category 2

Eye Dam. 1: Serious eye damage/eye irritation – Category 1

Eye Irrit. 2: Serious eye damage/eye irritation – Category 2

Skin Sens. 1: Skin sensitisation – Category 1

Repr. 2: Reproductive toxicity – Category 2

STOT RE 2: Specific target organ toxicity (repeated exposure) – Category 2

Aquatic Acute 1: Hazardous to the aquatic environment - acute aquatic hazard – Category 1

Aquatic Chronic 1: Hazardous to the aquatic environment - long-term aquatic hazard – Category 1

Aquatic Chronic 3: Hazardous to the aquatic environment - long-term aquatic hazard – Category 3

· **\* Data compared to the previous version altered.**

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