



## SAFETY DATA SHEET

Safety Data Sheet according to Regulation (EC) No. 1272/2008 (REACH) Annex II

<b>MULAN 700 WG</b>			
<b>Revision Date</b>	20-February 2020	<b>Version 1</b>	<b>Product No</b> JTA/UK/012
<b>Publish Date</b>	20-February 2020		

### Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

#### 1.1. Product identifier

**MULAN 700 WG**

#### 1.2. Relevant identified uses of the substance or mixture and uses advised against

<b>Recommended Use</b>	Fungicide
<b>Uses advised against</b>	Crop protection product

#### 1.3. Details of the supplier of the safety data sheet

<b>Supplier Address</b>	JT Agro Ltd 1 Bell Street, Maidenhead, Berkshire, SL6 1BU, U.K. Tel: +44 1628 421599 Fax: +44 1628 421623
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#### For further information, please contact

<b>Email address</b>	<a href="mailto:info@jtagro-cropthetics.com">info@jtagro-cropthetics.com</a>
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#### 1.4. Emergency telephone number

<b>Emergency Telephone</b>	National Chemical Emergency Centre (UK): Tel: 01865 407333 (24 hours)
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### Section 2: HAZARD IDENTIFICATION

#### 2.1. Classification of the substance or mixture

<b>Acute aquatic toxicity: Category 3</b>	<b>Oral.</b>
<b>Eye irritation: Category 1</b>	<b>Causes serious Damage/ eye irritation.</b>
<b>Skin: Category 1A</b>	
<b>Carcinogenic: Category 2</b>	
<b>Acute: Category 1</b>	<b>Hazardous to the aquatic environment</b>
<b>Chronic: Category 1</b>	<b>Hazardous to the aquatic environment</b>

## 2.2. Label elements and precautionary statement



Signal Word

**Danger**

Hazard Statements

*Toxic if swallowed. May cause an allergic skin reaction. Causes serious eye damage. Suspected of causing cancer. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.*

Precautionary Statements (Prevention)

*Do not handle until all safety precautions have been read and understood. Avoid breathing dust. Wash contaminated body parts thoroughly after handling. Do not eat, drink or smoke when using this product. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves/clothing/eye protection.*

Precautionary Statements (Response)

*IF SWALLOWED: rinse mouth. IF ON SKIN (or hair): Wash with plenty of soap and water. 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/physician. Take off contaminated clothing and wash it before reuse. Collect spillage.*

Precautionary Statements (Storage):

*Store locked up.*

Precautionary Statements (Disposal)

*Dispose of contents/container to hazardous or special waste collection point.*

## 2.3. Other hazards which do not result in classification

See section 12 - Results of PBT and vPvB assessment.

If applicable information is provided in this section on other hazards which do not result in classification, but which may contribute to the overall hazards of the substance or mixture.

## **Section 3: COMPOSITION/ INFORMATION ON INGREDIENTS**

### 3.1. Mixtures

Chemical nature

Water dispersible granules (WG)  
Dithianon 70 % W/W

Hazardous components

Chemical Name	CAS No EC-No./ REACH REG. No.	Classification according to Regulation (EC) No. 1272/2008 [CLP]	Conc. [%]
Dithianon	3347-22-6	Acute Tox.: Cat. 2 (Inhalation - dust) Acute Tox.: Cat. 4 (oral) Eye Dam./Irrit.: Cat. 1 Skin Sens.: Cat. 1A Carc.: Cat. 2 Aquatic Acute: Cat. 1 Aquatic Chronic: Cat. 1	70.0

For the full text of the H-Statements mentioned in this Section, see Section 16.

## Section 4: FIRST AID MEASURES

### 4.1. Description of first aid measures

<b>General advice</b>	<i>First aid personnel should pay attention to their own safety. If the patient is likely to become unconscious, place and transport in stable sideways position (recovery position). Immediately remove contaminated clothing.</i>
<b>Inhalation</b>	<i>Keep patient calm, remove to fresh air, seek medical attention. Immediately administer a corticosteroid from a controlled/metered dose inhaler.</i>
<b>Skin Contact</b>	<i>Immediately wash thoroughly with plenty of water, apply sterile dressings, consult a skin specialist.</i>
<b>Eye contact</b>	<i>Immediately wash affected eyes for at least 15 minutes under running water with eyelids held open, consult an eye specialist.</i>
<b>Ingestion</b>	<i>Immediately rinse mouth and then drink 200-300 ml of water, seek medical attention</i>

#### Note to physician:

*Symptoms: The most important known symptoms and effects are described in the labelling (see section 2) and/or in section 11., Further important symptoms and effects are so far not known.*

*Treatment: Treat according to symptoms (decontamination, vital functions), no known specific antidote.*

## Section 5: FIRE-FIGHTING MEASURES

### 5.1. Extinguishing media

**Suitable** *Dry powder, foam, water spray*

**Unsuitable** *Carbon dioxide*

### 5.2. Special hazards

*Carbon monoxide, carbon dioxide, nitrogen oxides, sulfur oxides  
The substances/groups of substances mentioned can be released in case of fire.*

**Special protective equipment**      *Wear self-contained breathing apparatus and chemical-protective clothing.*

**Further information**

*In case of fire and/or explosion do not breathe fumes. Keep containers cool by spraying with water if exposed to fire. Collect contaminated extinguishing water separately, do not allow to reach sewage or effluent systems. Dispose of fire debris and contaminated extinguishing water in accordance with official regulations.*

## Section 6: ACCIDENTAL RELEASE MEASURES

### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions**      *Use personal protective clothing. Avoid contact with the skin, eyes and clothing. Avoid dust formation.*

### 6.2. Environmental precautions

*Do not discharge into the subsoil/soil. Do not discharge into drains/surface waters/groundwater.*

### 6.3. Methods and material for containment and cleaning up

**Methods for cleaning up**      *For small amounts: Contain with dust binding material and dispose of. For large amounts: Sweep/shovel up. Avoid raising dust. Dispose of absorbed material in accordance with regulations. Collect waste in suitable containers, which can be labeled and sealed. Clean contaminated floors and objects thoroughly with water and detergents, observing environmental regulations.*

## Section 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

**Advice on safe handling**      *No special measures necessary if stored and handled correctly. Ensure thorough ventilation of stores and work areas. When using do not eat, drink or smoke. Hands and/or face should be washed before breaks and at the end of the shift.*

### **Protection against fire and explosion**

*Avoid contact with skin, eyes and clothing. Keep working clothes separately. Remove soiled clothing immediately and clean thoroughly before using again. Garments that cannot be cleaned must be destroyed (burnt).*

### 7.2. Storage

#### **Segregate from foods and animal feeds**

*Further information on storage conditions: Keep away from heat. Protect against moisture. Protect from direct sunlight.*

**7.3. Protect from temperatures above: 40 °C**

Changes in the properties of the product may occur if substance/product is stored above indicated temperature for extended periods of time.

## Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

**8.1. Components with occupational exposure limits**

No occupational exposure limits known.

**8.2. Personal protective equipment**

**Respiratory protection**

**Respiratory protection not required.**

**Hand protection**

**PVC-coated gloves**

**Eye protection**

**Tightly fitting safety goggles (splash goggles) (e.g. EN 166)**

**Skin and body protection**

**Standard work clothes and shoes.**

**General safety and hygiene measures**

**Avoid contact with the skin, eyes and clothing. In order to prevent contamination while handling, closed working clothes and working gloves should be used. Wash contaminated clothing before reuse. Gloves must be inspected regularly and prior to each use. Replace if necessary (e.g. pinhole leaks). Before eating, drinking, or smoking, wash face and hands with soap and water**

## Section 9: PHYSICAL AND CHEMICAL PROPERTIES

**9.1. Information on basic physical and chemical properties**

<b>Form</b>	<b>Granules</b>
<b>Colour</b>	<b>Brown</b>
<b>Odour</b>	<b>Characteristic</b>
<b>pH</b>	<b>5.0 - 6.0 at 1% (23 °C) (deionized water)</b>
<b>Odour threshold</b>	<b>Not determined due to potential health hazard by inhalation.</b>
<b>pH value</b>	<b>approx. 3 - 5 (1 %(m), approx. 20°C) (as suspension)</b>
<b>Melting point</b>	<b>&gt; 20 °C  The statements are based on the properties of the individual components.</b>
<b>Boiling point</b>	<b>The product is a non-volatile solid</b>
<b>Flash point</b>	<b>Not applicable</b>
<b>Evaporation rate</b>	<b>Not applicable</b>

<b>Flammability (solid/gas)</b> 440/2008/EC,	<b>Not highly flammable</b>	<b>(Regulation</b>
		<b>A.10)</b>
<b>Lower explosion limit</b>	<i>As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use</i>	
<b>Upper explosion limit</b>	<i>As a result of our experience with this product and our knowledge of its composition we do not expect any hazard as long as the product is used appropriately and in accordance with the intended use</i>	
<b>Thermal decomposition</b>	150 °C, 550 kJ/kg (onset temperature)	(DSC (OECD 113))
	375 °C, > 250 kJ/kg (onset temperature)	(DSC (OECD 113))
	<i>Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.</i>	
<b>Self ignition</b>	<b>Not self-igniting</b>	<b>not self-igniting</b>
<b>Self heating ability</b>	<i>It is not a substance capable of spontaneous heating</i>	
<b>Explosion hazard</b>	<b>Not explosive</b>	(Directive 92/69/EEC, A.14)
<b>Fire promoting properties</b>	<b>Not fire-propagating</b>	(Regulation 440/2008/EC, A.17)
<b>Vapour pressure</b>	<i>The value has not be determined because of the high melting point.</i>	
<b>Bulk density</b>	528 - 600 kg/m <sup>3</sup> (20 °C)	
<b>Relative vapour density (air)</b>	<b>Not applicable</b>	
<b>Solubility in water</b>	<b>Dispersible</b>	
<b>Partitioning coefficient</b> <i>n</i> -octanol/water (log Pow)	<b>not applicable</b>	
<b>Viscosity, dynamic</b>	<b>Not applicable, the product is a solid</b>	

**9.2. Other information**

If necessary, information on other physical and chemical parameters is indicated in this section.

**Section 10: STABILITY AND REACTIVITY**

**10.1. Reactivity**

**Conditions to avoid:**

See MSDS section 7 - Handling and storage.

**Thermal decomposition** 150 °C, 550 kJ/kg (DSC (OECD 113))  
(onset temperature)

**Thermal decomposition:** 375 °C, > 250 kJ/kg (DSC (OECD 113))  
(onset temperature)

**Thermal decomposition:** Not a substance liable to self-decomposition according to UN transport regulations, class 4.1.

**10.2. Substances to avoid**

strong acids, strong bases, strong oxidizing agents.

**10.3. Hazardous reactions**

No hazardous reactions if stored and handled as prescribed/indicated.

**10.4. Hazardous decomposition products**

No hazardous decomposition products if stored and handled as prescribed/indicated.

**Section 11: TOXICOLOGICAL INFORMATION****11.1. Information on toxicological effects****Acute toxicity**

**Assessment of acute toxicity** Virtually nontoxic after a single skin contact. Virtually nontoxic by inhalation. Of high toxicity after single ingestion.

**Experimental/calculated data** LD50 rat (oral): 273 mg/kg (Directive 84/449/EEC, B.1)

**LC50 rat (by inhalation)** Not inhalable due to the physico-chemical properties of the product.

**LD50 rat (dermal): > 4,000 mg/kg (OECD Guideline 402)** No mortality was observed. Test conducted with a similar formulation.

**Irritation**

**Assessment of irritating effects** May cause severe damage to the eyes. Not irritating to the skin.

**Experimental/calculated data** Skin corrosion/irritation rabbit: (Directive 84/449/EEC, B.4)  
**Serious eye damage/irritation rabbit** (Directive 84/449/EEC, B.5)

**Respiratory/Skin sensitization**

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<b>Assessment of sensitization</b>	<b>The product has not been tested. The statement has been derived from the properties of the individual components. Sensitization after skin contact possible.</b>
<b>Information on</b>	<b>Dithianon Experimental/calculated data: Guinea pig maximization test guinea pig: (OECD Guideline 406) An aqueous solution was tested.</b>
<b>Germ cell mutagenicity</b>	
<b>Assessment of mutagenicity</b>	<b>The product has not been tested. The statement has been derived from the properties of the individual components. Mutagenicity tests revealed no genotoxic potential.</b>
<b>Carcinogenicity</b>	
<b>Assessment of carcinogenicity</b>	<b>The product has not been tested. The statement has been derived from the properties of the individual components.</b>
<b>Information on: dithianon</b>	
<b>Assessment of carcinogenicity</b>	<b>Long term administration of organotoxic doses revealed a carcinogenic effect. In long-term studies in mice in which the substance was given by feed, a carcinogenic effect was not observed.</b>
<b>Reproductive toxicity</b>	
<b>Assessment of reproduction toxicity</b>	<b>The product has not been tested. The statement has been derived from the properties of the individual components. The results of animal studies gave no indication of a fertility impairing effect.</b>
<b>Developmental toxicity</b>	
<b>Assessment of teratogenicity</b>	<b>The product has not been tested. The statement has been derived from the properties of the individual components.</b>
<b>Information on: dithianon</b>	
<b>Assessment of teratogenicity</b>	<b>The substance did not cause malformations in animal studies; however, toxicity to development was observed at high doses which impaired body weight gain in parental animals.</b>
<b>Experiences in humans</b>	
<b>Information on: Dithianon</b>	
<b>Experimental/calculated data</b>	<b>skin irritation, itching, erythema: Experiences in use</b>
<b>Specific target organ toxicity (single exposure)</b>	
<b>Assessment of STOT single</b>	<b>The available information is not sufficient for the evaluation of specific target organ toxicity.</b>
<b>Remarks:</b>	<b>The product has not been tested. The statement has been derived from the properties of the individual components.</b>

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**Repeated dose toxicity and Specific target organ toxicity (repeated exposure)**

**Assessment of repeated dose toxicity**      *The product has not been tested. The statement has been derived from the properties of the individual components.*

**Information on: dithianon**

**Assessment of repeated dose toxicity**      *Repeated exposure may affect certain organs. Damages the kidneys.*

**Aspiration hazard**

*No aspiration hazard expected.*

*The product has not been tested. The statement has been derived from the properties of the individual components.*

**Further information**

*Misuse can be harmful to health.*

**Section 12: ECOLOGICAL INFORMATION****12.1. Toxicity****Ecotoxicity****Assessment of aquatic toxicity**

*Very toxic to aquatic life with long lasting effects.*

**Toxicity to fish**

*LC50 (96 h) 0.033 mg/l, *Oncorhynchus mykiss**

**Toxicity to aquatic invertebrates**

*EC50 (48 h) 0.157 mg/l, *Daphnia magna**

**Toxicity to aquatic plants**

*EC50 (72 h) 0.091 mg/l, *Chlorella vulgaris**

**Mobility****Assessment transport between environmental compartments**

*The product has not been tested. The statement has been derived from the properties of the individual components.*

**Information on: Dithianon****Assessment transport between environmental compartments**

*Following exposure to soil, adsorption to solid soil particles is probable, therefore contamination of groundwater is not expected.*

**12.2. Persistence and degradability****Assessment biodegradation and elimination (H<sub>2</sub>O)**

*The product has not been tested. The statement has been derived from the properties of the individual components.*

**Biodegradability****Dithianon**

**Assessment biodegradation and elimination (H<sub>2</sub>O):**  
According to OECD criteria the product is not readily biodegradable but inherently biodegradable.

**12.3. Bioaccumulative potential****Assessment bioaccumulation potential**

The product has not been tested. The statement has been derived from the properties of the individual components.

**Bioaccumulation****Dithianon**

**Bioconcentration factor: 28 (3 d), Oncorhynchus mykiss (OECD Guideline 305 E) Does not accumulate in organisms.**

**12.4. Additional information**

**Other ecotoxicological advice**  
control.

**Do not discharge product into the environment without**

### Section 13: DISPOSAL CONSIDERATIONS

**Must be sent to a suitable incineration plant, observing local regulations.**

**Contaminated packaging**

**Contaminated packaging should be emptied as far as possible and disposed of in the same manner as the substance/product.**

### Section 14: TRANSPORT CONSIDERATIONS

**Domestic transport**

- |                                   |   |
|-----------------------------------|---|
| <b>14.1. Hazard class</b>         | <b>6.1</b>  |
| <b>14.2. Packing group</b>        | <b>III</b>  |
| <b>14.3. ID number</b>            | <b>UN 2588</b>  |
| <b>14.4. Hazard label</b>         | <b>6.1, EHSM</b>  |
| <b>14.5. Proper shipping name</b> | <b>PESTICIDE, SOLID, TOXIC, N.O.S. (contains DITHIANON)</b> |

**Further information**

- |                           |           |
|---------------------------|-----------|
| <b>14.1. Hazchem Code</b> | <b>2X</b> |
| <b>14.2. IERG Number</b>  | <b>34</b> |

**Sea transport****IMDG**

- |                                   |   |
|-----------------------------------|---|
| <b>14.1. Hazard class</b>         | <b>6.1</b>  |
| <b>14.2. Packing group</b>        | <b>III</b>  |
| <b>14.3. ID number</b>            | <b>UN 2588</b>  |
| <b>14.4. Hazard label</b>         | <b>6.1, EHSM</b>  |
| <b>14.5. Marine pollutant</b>     | <b>YES</b>  |
| <b>14.6. Proper shipping name</b> | <b>PESTICIDE, SOLID, TOXIC, N.O.S. (contains DITHIANON)</b> |

Air transport  
IATA/ICAO

14.1. Hazard class	6.1
14.2. Packing group	III
14.3. ID number	UN 2588
14.4. Hazard label	6.1
14.5. Proper shipping name	PESTICIDE, SOLID, TOXIC, N.O.S. (contains DITHIANON)

## Section 15: REGULATORY INFORMATION

### Other regulations

If other regulatory information applies that is not already provided elsewhere in this safety data sheet, then it is described in this subsection.

Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP): Schedule 6

### Registration status

AICS, AU released / listed  
APVMA Approval 50029

## Section 16: OTHER INFORMATION

The data contained in this safety data sheet are based on our current knowledge and experience and describe the product only with regard to safety requirements. This safety data sheet is neither a Certificate of Analysis (CoA) nor technical data sheet and shall not be mistaken for a specification agreement. Identified uses in this safety data sheet do neither represent an agreement on the corresponding contractual quality of the substance/mixture nor a contractually designated use. It is the responsibility of the recipient of the product to ensure any proprietary rights and existing laws and legislation are observed.

**End of Safety Data Sheet**

