



# SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

**Joules**

Version 2 (Ireland)

Issuing date: 2014/11/28

## 1. IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

### 1.1. Product identifier

Trade name : **Joules**

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

Use : fungicide

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

Nufarm UK Limited  
Wyke Lane  
Wyke  
Bradford  
West Yorkshire BD12 9EJ  
United Kingdom  
Telephone: +44 (0)1274 691234  
Telefax: +44 (0)1274 691176  
E-mail address: infouk@uk.nufarm.com

### 1.4. Emergency telephone number

**+44 (0)1274 696603**

## 2. HAZARDS IDENTIFICATION

### 2.1. Classification of the substance or mixture

EEC/99/45 :	<b>T+</b>	<b>R26 - Very toxic by inhalation.</b>
EEC/99/45 :	Xi	R37 - Irritating to respiratory system.
	Xn	R40 - Limited evidence of a carcinogenic effect.
	Xi	R41 - Risk of serious damage to eyes.
	Xi	R43 - May cause sensitization by skin contact.
	N	R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
EG_1272/08 :	AcuteTox.2	H330 - Fatal if inhaled.
	EyeDam.1	H318 - Causes serious eye damage.
	SkinSens.1	H317 - May cause an allergic skin reaction.
	STOT_SE3	H335 - May cause respiratory irritation.
	Carc.2	H351 - Suspected of causing cancer.
	AquaticAcute1	H400 - Very toxic to aquatic life.
	AquaticChronic1	H410 - Very toxic to aquatic life with long lasting effects.

## 2.2. Label elements

according directive 1999/45/EG

Pictogram:



T+



N

- R26 - Very toxic by inhalation.
- R41 - Risk of serious damage to eyes.
- R37 - Irritating to respiratory system.
- R43 - May cause sensitization by skin contact.
- R40 - Limited evidence of a carcinogenic effect.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

- S 1/2 - Keep locked up and out of the reach of children.
- S13 - Keep away from food, drink and animal feedingstuffs.
- S23 - Do not breathe spray.
- 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.
- S46 - If swallowed, seek medical advice immediately and show this container or label.
- S63 - In case of accident by inhalation: remove casualty to fresh air and keep at rest.
- S57 - Use appropriate container to avoid environmental contamination.
- S35 - This material and its container must be disposed of in a safe way.

REGULATION (EC) No 1272/2008

Pictogram:



GHS06



GHS08



GHS05



GHS09



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- H330 - Fatal if inhaled.  
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H317 - May cause an allergic skin reaction.  
H335 - May cause respiratory irritation.  
H351 - Suspected of causing cancer.  
H410 - Very toxic to aquatic life with long lasting effects.  
EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.
- P202 - Do not handle until all safety precautions have been read and understood.  
P260 - Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.  
P271 - Use only outdoors or in a well-ventilated area.  
P272 - Contaminated work clothing should not be allowed out of the workplace.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P284 - Wear respiratory protection.  
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.  
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.  
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.  
P308 + P313 - IF exposed or concerned: Get medical advice/ attention.  
P405 - Store locked up.  
P403 + P233 - Store in a well-ventilated place. Keep container tightly closed.  
P273 - Avoid release to the environment.  
P501 - Dispose of contents/ container to a licensed hazardous-waste disposal contractor or collection site except for empty clean containers which can be disposed of as non hazardous waste.

### 2.3. Other hazards

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

**Chemical nature** : suspension concentrate (SC)  
500 g/L Chlorothalonil

### 3.2. Mixtures

#### Components:

#### Chlorothalonil

CAS-No.: 1897-45-6  
EINECS-No. / ELINCS No.: 217-588-1  
REACH No.:  
Concentration: 40.2 % (w/w)



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**Classification:**

EG\_1272/08 :

Carc.Cat.2

H351 - Suspected of causing cancer.

AcuteTox.2

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STOT\_SE3

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AquaticChronic1

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(M=10)

- - -

EEC/67/548 :

Carc.Cat.3

R40 - Limited evidence of a carcinogenic effect.

T+

R26 - Very toxic by inhalation.

Xi

R37 - Irritating to respiratory system.

Xi

R41 - Risk of serious damage to eyes.

-

R43 - May cause sensitization by skin contact.

N

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

## 4. FIRST AID MEASURES

### 4.1. Description of first aid measures

- Eye contact : Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist.
- Skin contact : Wash off immediately with plenty of water for at least 15 minutes. Take off all contaminated clothing immediately. Wash contaminated clothing before re-use. If symptoms persist, call a physician.
- Inhalation : Remove casualty to fresh air. If symptoms persist, call a physician. In case of respiratory arrest artificial respiration.
- Ingestion : Do NOT induce vomiting. If symptoms persist, call a physician. Never give anything by mouth to an unconscious person.

### 4.2. Most important symptoms and effects, both acute and delayed

- Symptoms : No information available.

### 4.3. Indication of any immediate medical attention and special treatment needed

- Treatment : Treat symptomatically.

## 5. FIREFIGHTING MEASURES

### 5.1. Extinguishing media

- Suitable extinguishing : Carbon dioxide (CO<sub>2</sub>), Dry powder, Foam, Sand, Water spray



media

Extinguishing media which shall not be used for safety reasons : High volume water jet

## 5.2. Special hazards arising from the substance or mixture

Specific hazards during firefighting : In the event of fire (NO<sub>x</sub>, CO<sub>x</sub>, HCl, Cl<sub>2</sub>, HCN) may be formed.

## 5.3. Advice for firefighters

Special protective equipment for firefighters : Use personal protective equipment. Wear self contained breathing apparatus for fire fighting if necessary.

Further Information : Standard procedure for chemical fires. Collect contaminated fire extinguishing water separately. This must not be discharged into drains.

## 6. ACCIDENTAL RELEASE MEASURES

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

Wear personal protective equipment. (see Chapter 8)

### 6.2. Environmental precautions

Do not contaminate water. Do not flush into surface water or sanitary sewer system.

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

Methods for cleaning up : Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder). Sweep up and shovel into suitable containers for disposal.

Additional advice : Never return spills in original containers for re-use.

### 6.4. Reference to other sections

see Chapter 13

## 7. HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Safe handling advice : Avoid contact with skin and eyes. Keep out of reach of children. Wear personal protective equipment.



## 7.2. Conditions for safe storage, including any incompatibilities

- Requirements for storage areas and containers : Protect from frost. Keep in a dry, cool and well-ventilated place. Store in original container.
- Advice on common storage : Keep out of reach of children. Keep away from food, drink and animal feeding stuffs.

## 7.3. Specific end use(s)

none

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

Components with workplace control parameters  
(according to S.I. No. 619 of 2001)

Components	CAS-No.	National occupational exposure limits	Note
Chlorothalonil	1897-45-6		no classification available

### 8.2. Exposure controls

#### Personal protective equipment

- Respiratory protection : No special protective equipment required. In case of insufficient ventilation wear suitable respiratory equipment.
- Hand protection : PVC or nitrile-rubber gloves
- Eye protection : Goggles, , or:, Safety glasses
- Skin and body protection : lightweight protective clothing
- Hygiene measures : Avoid contact with skin, eyes and clothing. General industrial hygiene practice. Remove and wash contaminated clothing and gloves, including the inside, before re-use. Wash hands before breaks and at the end of workday. Keep working clothes separately.
- Protective measures : Avoid contact with skin, eyes and clothing. When using, do not eat, drink or smoke.

## 9. PHYSICAL AND CHEMICAL PROPERTIES



## 9.1. Information on basic physical and chemical properties

### Appearance

Physical state : liquid  
Form : suspension concentrate (SC)  
Colour : white  
Odour : solvent-like

Flash point : >100 °C

Ignition temperature : >400 °C  
Method: 92/69/EEC A15

Explosivity : Not explosive

Density : 1.2 g/cm<sup>3</sup>

pH : 7.2

Surface tension : 48.9 mN/m

## 9.2. Other information

none

## 10. STABILITY AND REACTIVITY

### 10.1. Reactivity

no data available, not applicable

### 10.2. Chemical stability

No decomposition if stored and applied as directed.

### 10.3. Possibility of hazardous reactions

No dangerous reaction known under conditions of normal use.

### 10.4. Conditions to avoid

Extreme temperatures., No dangerous reaction known under conditions of normal use.



### 10.5. Incompatible materials to avoid

Strong acids and strong bases

### 10.6. Hazardous decomposition products

none

## 11. TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

Acute oral toxicity : LD50 rat  
Dose: > 5,000 mg/kg  
Test substance: (Chlorothalonil)

Acute dermal toxicity : LD50 rabbit  
Dose: > 2,000 mg/kg  
Test substance: (Chlorothalonil)

Acute inhalation toxicity : LC50 rat  
Exposure time: 4 h  
Dose: 0.242 mg/l

Skin irritation : Result: No skin irritation  
Test substance: (Chlorothalonil)

Eye irritation : Result: Eye irritation  
Test substance: (Chlorothalonil)

Sensitisation : Result: Causes sensitization.  
Test substance: (Chlorothalonil)

## 12. ECOLOGICAL INFORMATION

### 12.1. Toxicity

Toxicity to earthworms : LC50 Eisenia fetida (earthworms)  
Dose: > 1,000 mg/kg  
Testing period: 14 d





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Toxicity to birds : LD50 Toxicity to birds  
Dose: > 2,000 mg/kg 8.8 ppm  
Test substance: (Chlorothalonil)

Toxicity to fish : LC50 Oncorhynchus mykiss (Rainbow trout)  
Dose: 0.038 mg/l  
Test substance: (Chlorothalonil)

Toxicity to daphnia : EC50 Daphnia magna (Water flea)  
Dose: 0.084 mg/l  
Test substance: (Chlorothalonil)

Toxicity to algae : EC50 Selenastrum capricornutum  
Dose: 0.116 mg/l  
Test substance: (Chlorothalonil)

### 12.2. Persistence and degradability

Stability in soil : DT50: 0.3 - 87 d  
(Chlorothalonil)

### 12.3. Potential bioaccumulation

Bioaccumulation : Does not bioaccumulate.

### 12.4. Mobility in soil

Koc = 300 - 7000 l/kg (Chlorothalonil)

### 12.5. Results of PBT and vPvB assessment

This mixture contains no substance considered to be persistent, bioaccumulating nor toxic (PBT).

### 12.6. Other adverse effects

not applicable

## 13. DISPOSAL CONSIDERATIONS

According to European Directive 2000/532/EC as amended :

Waste Code : 02 01 08 (agrochemical waste containing dangerous substances)

### 13.1. Waste treatment methods



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Product : Dispose of product and packaging in accordance with The Green Code. (The Code of Practice for the safe use of Pesticides on Farms and Holdings.) A MAFF Publication.

Contaminated packaging : Dispose of as unused product. Do not re-use empty containers.

## 14. TRANSPORT INFORMATION

### 14.1. UN number

UN2902

### 14.2. Proper shipping name

UN2902 PESTICIDE, LIQUID, TOXIC, N.O.S.\*(Chlorothalonil)

### 14.3. Transport hazard class(es)

ADR/RID :  
Class : 6.1

IMDG :  
Class : 6.1

IATA-DGR :  
Class : 6.1

### 14.4. Packaging group

ADR/RID : II

IMDG : II

IATA-DGR : II

### 14.5. Environmental hazards

**IMDG**  
Marine Pollutant : Y

### 14.6. Special precautions for user



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none

### 15. REGULATORY INFORMATION

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Other regulations : The product is classified and labelled in accordance with EC directives or respective national laws.

#### 15.2. Chemical Safety Assessment

none

### 16. OTHER INFORMATION

Print Date : 2014/11/28

The date format YYYY/MM/DD is used according to ISO 8601.  
(Alterations are indicated in the left hand margin by: || )

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