



SAFETY DATA SHEET

according to Regulation (EC) No. 1907/2006

Joules

Version 2 (UK)

Issuing date: 2014/08/08

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 :	T+	R26 - Very toxic by inhalation.
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.
 R37 - Irritating to respiratory system.
 R40 - Limited evidence of a carcinogenic effect.
 R41 - Risk of serious damage to eyes.
 R43 - May cause sensitization by skin contact.
 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.
 S23 - Do not breathe fumes.
 S25 - Avoid contact with eyes.
 S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
 S28 - After contact with skin, wash immediately with plenty of water.
 S35 - This material and its container must be disposed of in a safe way.
 S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.
 S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
 S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
 S57 - Use appropriate container to avoid environmental contamination.
 S63 - In case of accident by inhalation: remove casualty to fresh air and keep at rest.

REGULATION (EC) No 1272/2008

Pictogram:



GHS06



GHS08



GHS05



GHS09



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- H330 - Fatal if inhaled.
- H318 - Causes serious eye damage.
- 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



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REACH No.:
Concentration: 40.2 % (w/w)

Classification:
EG_1272/08 : Carc.Cat.2 H351 - Suspected of causing cancer.
AcuteTox.2 H330 - Fatal if inhaled.
STOT_SE3 H335 - May cause respiratory irritation.
EyeDam.1 H318 - Causes serious eye damage.
SkinSens.1 H317 - May cause an allergic skin reaction.
AquaticAcute1 H400 - Very toxic to aquatic life.
AquaticChronic1 H410 - Very toxic to aquatic life with long lasting effects.
(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 media : Carbon dioxide (CO₂), Dry powder, Foam, Sand, Water spray

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_x, CO_x, HCl, Cl₂, 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



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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
(EH40/2005 Workplace exposure limits)

Components	CAS-No.	National occupational exposure limits	Note
Chlorothalonil	1897-45-6		no classification available, not listed in EH40/2005

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/cm³

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)



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Dose: > 1,000 mg/kg
Testing period: 14 d

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

- 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



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14.6. Special precautions for user

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 : 2014/08/08

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

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

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