

SAFETY DATA SHEET
HI-CHARLO
SECTION 1: Identification of the substance/mixture and of the company/undertaking
1.1. Product identifier

Product name HI-CHARLO

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

Identified uses Fungicide

1.3. Details of the supplier of the safety data sheet

Supplier Hockley Agro
Hockley House
3 Longstone Road
Ashbrook Office Park
Manchester
M22 5LB
TEL: +44 (0) 161 209 7400
FAX: +44 (0) 161 209 7401
sds@hockley.co.uk

1.4. Emergency telephone number

Emergency telephone +44 (0)800 246 1274 (24 hours)

SECTION 2: Hazards identification
2.1. Classification of the substance or mixture
Classification (EC 1272/2008)

Physical hazards Not Classified

Health hazards Acute Tox. 4 - H332 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Carc. 2 - H351 STOT SE 3 - H335

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

2.2. Label elements
Hazard pictograms


Signal word

Warning

Hazard statements

H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H410 Very toxic to aquatic life with long lasting effects.

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Precautionary statements	<p>P102 Keep out of reach of children.</p> <p>P201 Obtain special instructions before use.</p> <p>P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.</p> <p>P302+P352 IF ON SKIN: Wash with plenty of water.</p> <p>P308+P313 IF exposed or concerned: Get medical advice/ attention.</p> <p>P305+P351+P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.</p> <p>P391 Collect spillage.</p> <p>P501 Dispose of contents/ container in accordance with national regulations.</p>
Supplemental label information	EUH401 To avoid risks to human health and the environment, comply with the instructions for use.
Contains	CHLOROTHALONIL (ISO)
Supplementary precautionary statements	<p>P202 Do not handle until all safety precautions have been read and understood.</p> <p>P261 Avoid breathing vapour/ spray.</p> <p>P264 Wash contaminated skin thoroughly after handling.</p> <p>P271 Use only outdoors or in a well-ventilated area.</p> <p>P272 Contaminated work clothing should not be allowed out of the workplace.</p> <p>P273 Avoid release to the environment.</p> <p>P304+P340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.</p> <p>P312 Call a POISON CENTRE/doctor if you feel unwell.</p> <p>P321 Specific treatment (see medical advice on this label).</p> <p>P333+P313 If skin irritation or rash occurs: Get medical advice/ attention.</p> <p>P337+P313 If eye irritation persists: Get medical advice/ attention.</p> <p>P362+P364 Take off contaminated clothing and wash it before reuse.</p> <p>P403+P233 Store in a well-ventilated place. Keep container tightly closed.</p> <p>P405 Store locked up.</p>

2.3. Other hazards

SECTION 3: Composition/information on ingredients

3.2. Mixtures

CHLOROTHALONIL (ISO)	40.0%
CAS number: 1897-45-6	EC number: 217-588-1
M factor (Acute) = 10	M factor (Chronic) = 10
Classification	Classification (67/548/EEC or 1999/45/EC)
Acute Tox. 2 - H330	Carc. Cat. 3;R40 T+;R26 Xi;R37,R41 R43 N;R50/53
Eye Dam. 1 - H318	
Skin Sens. 1 - H317	
Carc. 2 - H351	
STOT SE 3 - H335	
Aquatic Acute 1 - H400	
Aquatic Chronic 1 - H410	
1,2-PROPANDIOL	5-10%
CAS number: 57-55-6	EC number: 200-338-0
	REACH registration number: 01-2119456809-23-XXXX
Classification	Classification (67/548/EEC or 1999/45/EC)
Not Classified	-

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

SECTION 4: First aid measures

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4.1. Description of first aid measures

Inhalation	Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention immediately. If breathing stops, provide artificial respiration.
Ingestion	IF SWALLOWED: Get medical attention immediately. Show this Safety Data Sheet to the medical personnel. Do not induce vomiting.
Skin contact	Take off immediately all contaminated clothing and wash it before reuse. Rinse immediately with plenty of water. Get medical attention if irritation persists after washing.
Eye contact	Rinse immediately with plenty of water. Get medical attention immediately. Remove contact lenses, if present and easy to do. Continue rinsing. Continue to rinse for at least 15 minutes.

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

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

Specific treatments	No specific antidote available. Treat symptomatically.
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SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	Small fires: Water spray. Alcohol-resistant foam. Carbon dioxide (CO ₂). Dry chemicals. Larger fires: Alcohol-resistant foam. Water spray.
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Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
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5.2. Special hazards arising from the substance or mixture

Specific hazards	Fire will produce dense black smoke.
Hazardous combustion products	Very toxic gases or vapours. Irritating gases or vapours.

5.3. Advice for firefighters

Protective actions during firefighting	Avoid the spillage or runoff entering drains, sewers or watercourses. Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.
Special protective equipment for firefighters	Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions	For personal protection, see Section 8.
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6.2. Environmental precautions

Environmental precautions	Avoid discharge into drains and the aquatic environment. Do not discharge into drains or watercourses or onto the ground. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil or air).
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6.3. Methods and material for containment and cleaning up

Methods for cleaning up	Contain and absorb spillage with sand, earth or other non-combustible material. Place waste in labelled, sealed containers. Dispose of contents/container in accordance with national regulations.
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6.4. Reference to other sections

Reference to other sections	Information regarding safe handling, see section 7. For personal protection, see Section 8. For waste disposal, see Section 13.
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SECTION 7: Handling and storage

7.1. Precautions for safe handling

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Usage precautions Avoid contact with skin, eyes and clothing. Do not eat, drink or smoke when using this product. For personal protection, see Section 8.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Keep container tightly closed, in a cool, well ventilated place. Keep locked up. Keep out of the reach of children. Keep away from food, drink and animal feeding stuffs.

7.3. Specific end use(s)

Specific end use(s) Refer to the label and/or leaflet

SECTION 8: Exposure controls/Personal protection

8.1. Control parameters

Occupational exposure limits

1,2-PROPANDIOL

Long-term exposure limit (8-hour TWA): WEL 150 ppm 474 mg/m³ total vapour and particulates

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³ particulate

WEL = Workplace Exposure Limit

1,2-PROPANDIOL (CAS: 57-55-6)

DNEL Industry - Inhalation; Long term systemic effects: 168 mg/m³
Industry - Inhalation; Long term local effects: 10 mg/m³
Consumer - Inhalation; Long term systemic effects: 50 mg/m³
Consumer - Inhalation; Long term local effects: 10 mg/m³

PNEC - Fresh water; 260 mg/l
- marine water; 26 mg/l
- Intermittent release; 183 mg/l
- STP; 20000 mg/l
- Sediment (Freshwater); 572 mg/kg
- Sediment (Marinewater); 57.2 mg/kg
- Soil; 50 mg/kg

8.2. Exposure controls

Protective equipment



Appropriate engineering controls

Refer to CoSHH (Control of Substances Hazardous to Health) assessment. Engineering controls should be used in preference to personal protective equipment wherever practicable. Refer to CoSHH Essentials.

Eye/face protection

Wear approved, tight fitting safety glasses where splashing is probable. Full face visor or shield.

Hand protection

Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Wear protective gloves made of the following material: Nitrile rubber. The breakthrough time for any glove material may be different for different glove manufacturers. Considering the data specified by the glove manufacturer, check during use that the gloves are retaining their protective properties and change them as soon as any deterioration is detected.

Other skin and body protection

Assess the exposure and select chemical clothing based on the potential for contact and permeation/penetration characteristic of the clothing material. If appropriate, wear impervious protective suit. Wash with soap and water after removing protective clothing. Decontaminate clothing before reuse, or use disposable equipment (suit, aprons, sleeves, boots, etc.).

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Respiratory protection	Respiratory protection complying with an approved standard should be worn if a risk assessment indicates inhalation of contaminants is possible. Wear self-contained breathing apparatus.
Environmental exposure controls	Do not release into the environment. Avoid the spillage or runoff entering drains, sewers or watercourses.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	Liquid.
Colour	Beige. to White/off-white.
Odour	weak Pungent.
pH	pH (diluted solution): 5-9 at 1% w/v
Melting point	-5°C
Initial boiling point and range	> 100°C
Flash point	> 99°C Pensky-Martens closed cup.
Evaporation rate	Not available.
Evaporation factor	Not available.
Flammability (solid, gas)	Not relevant.
Upper/lower flammability or explosive limits	Not available.
Other flammability	Not available.
Vapour pressure	Not available.
Vapour density	Not available.
Relative density	1.24 g/cm ³
Bulk density	Not available.
Solubility(ies)	Not available.
Partition coefficient	Not available.
Auto-ignition temperature	Not available.
Decomposition Temperature	Not available.
Viscosity	Not available.
Explosive properties	Not considered to be explosive.
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2. Other information

Other information	Not available.
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SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	No data available.
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10.2. Chemical stability

Stability	No data available.
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10.3. Possibility of hazardous reactions

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Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Not available.

10.5. Incompatible materials

10.6. Hazardous decomposition products

Hazardous decomposition products Thermal decomposition or combustion products may include the following substances: Toxic gases or vapours.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity - oral

Acute toxicity oral (LD₅₀ mg/kg) 4,200.0

Species Rat

ATE oral (mg/kg) 4,200.0

Acute toxicity - dermal

Acute toxicity dermal (LD₅₀ mg/kg) 20,000.0

Species Rat

ATE dermal (mg/kg) 20,000.0

Acute toxicity - inhalation

Acute toxicity inhalation (LC₅₀ dust/mist mg/l) 1.96

Species Rat

ATE inhalation (dusts/mists mg/l) 1.96

Skin corrosion/irritation

Animal data Moderately irritating. Rabbit

Serious eye damage/irritation

Serious eye damage/irritation Moderately irritating. Rabbit

Skin sensitisation

Skin sensitisation Buehler test - Rabbit: Sensitising.

Germ cell mutagenicity

Genotoxicity - in vivo No evidence of mutagenicity in animal studies.

Carcinogenicity

Carcinogenicity Contains a substance which has been shown to cause cancer in laboratory animals. Chlorothalonil.

Target organ for carcinogenicity Kidneys

Reproductive toxicity

Reproductive toxicity - fertility No evidence of reproductive toxicity in animal studies.

Specific target organ toxicity - single exposure

STOT - single exposure May cause respiratory irritation.

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Specific target organ toxicity - repeated exposure

STOT - repeated exposure No adverse effect observed in chronic toxicity tests

SECTION 12: Ecological information

12.1. Toxicity

Acute aquatic toxicity

Acute toxicity - fish LC₅₀, 96 hours: 0.195 mg/l, *Oncorhynchus mykiss* (Rainbow trout)

Acute toxicity - aquatic invertebrates EC₅₀, 24 hours: 0.180 mg/l, *Daphnia magna*

Acute toxicity - aquatic plants ErC50, 96 hours: 0.53 mg/l, Freshwater algae

12.2. Persistence and degradability

Persistence and degradability Water : DT 50 Chlorothalonil <5d at 20°C, not persistent
Soil : DT 50 Chlorothalonil ca. 7d at 20°C, not persistent

12.3. Bioaccumulative potential

Bioaccumulative potential Chlorothalonil. Low potential for bioaccumulation.

Partition coefficient Not available.

12.4. Mobility in soil

Mobility Chlorothalonil. Low to slight mobility in soil.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Dangerous for the environment. Dispose of waste product or used containers in accordance with local regulations

Disposal methods Disposal of this product, process solutions, residues and by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any local authority requirements.

SECTION 14: Transport information

General Environmentally Hazardous Substance Mark NOT required for single packagings and combination packagings containing inner packagings ≤ 5L for liquids, or ≤ 5kg for solids. (ADR special provision 375, IMDG code 2.10.2.7, IATA special provision A197)

Marine pollutants packaged in single or combination packagings containing a net quantity per single or inner packaging of 5 L or less for liquids or having a net mass per single or inner packaging of 5 kg or less for solids are not subject to any other provisions of the Code relevant to marine pollutants provided the packagings meet the general provisions of 4.1.1.1, 4.1.1.2 and 4.1.1.4 to 4.1.1.8. In the case of marine pollutants also meeting the criteria for inclusion in another hazard class all provisions of this Code relevant to any additional hazards continue to apply.

14.1. UN number

UN No. (ADR/RID) 3082

UN No. (IMDG) 3082

UN No. (ICAO) 3082

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UN No. (ADN) 3082

14.2. UN proper shipping name

Proper shipping name (ADR/RID) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROTHALONIL)

Proper shipping name (IMDG) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROTHALONIL)

Proper shipping name (ICAO) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROTHALONIL)

Proper shipping name (ADN) ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (CHLOROTHALONIL)

14.3. Transport hazard class(es)

ADR/RID class 9

ADR/RID classification code M6

ADR/RID label 9

IMDG class 9

ICAO class/division 9

ADN class 9

Transport labels



14.4. Packing group

ADR/RID packing group III

IMDG packing group III

ICAO packing group III

ADN packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant



14.6. Special precautions for user

EmS F-A, S-F

ADR transport category 3

Emergency Action Code •3Z

Hazard Identification Number (ADR/RID) 90

Tunnel restriction code (-)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

SECTION 15: Regulatory information

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

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EU legislation

EC Regulation 1107/2009 of the European Parliament and of the Council of 21 October 2009 concerning the placing of plant protection products (as amended)
European Communities (Authorization, Placing on the Market, Use and Control of Plant Protection Products) Regulations 2003 (SI No 83/2003)
2010 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations, 2001 (SI No 619/2001)
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

SECTION 16: Other information

SDS number

20808

Hazard statements in full

H317 May cause an allergic skin reaction.
H318 Causes serious eye damage.
H319 Causes serious eye irritation.
H330 Fatal if inhaled.
H332 Harmful if inhaled.
H335 May cause respiratory irritation.
H351 Suspected of causing cancer.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.