



Chlorothalonil 375g/L +Tebuconazole 125g/L SC

Safety Data Sheet

according to Regulation (EC) No. 453/2010

Date of issue: 12/10/2013

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Supersedes:

Version: 2.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : Chlorothalonil 375g/L +Tebuconazole 125g/L SC

Product code : FF-050

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

1.2.1. Relevant identified uses

Industrial/Professional use spec : For professional use only

Use of the substance/mixture : Agriculture Fungicide

1.2.2. Uses advised against

No additional information available

1.3. Details of the supplier of the safety data sheet

Rotam Agrochemical Company Limited
Unit 6, 26/F, Trend Centre, 29 Cheung Lee Street, Chai Wan, Hong Kong
T 00852 2896 0662 - F 00852 25586577
msds@rotam.com

1.4. Emergency telephone number

Emergency number : (86) 532 8388 9090

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Acute toxicity (inhalation:dust,mist) Category 4

H332

On basis of test data

Serious eye damage/eye irritation, Category 1

H318

Annex VII conversion

Carcinogenicity, Category 2

H351

Calculation method

Reproductive toxicity, Category 2

H361

Calculation method

Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation

H335

Calculation method

Hazardous to the aquatic environment — Acute Hazard, Category 1

H400

On basis of test data

Hazardous to the aquatic environment — Chronic Hazard, Category 1

H410

Calculation method

Full text of H statements : see section 16

Adverse physicochemical, human health and environmental effects

Suspected of causing cancer. Suspected of damaging fertility or the unborn child. Harmful if inhaled. May cause respiratory irritation. Causes serious eye damage. Very toxic to aquatic life with long lasting effects.

2.2. Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)



GHS05



GHS07



GHS08



GHS09

Signal word (CLP)

: Danger

Hazardous ingredients

: 1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazol-1-ylmethyl)pentan-3-ol; Chlorothalonil (ISO); tetrachloroisophthalonitrile

Hazard statements (CLP)

: H318 - Causes serious eye damage
H332 - Harmful if inhaled
H335 - May cause respiratory irritation
H351 - Suspected of causing cancer
H361 - Suspected of damaging fertility or the unborn child
H410 - Very toxic to aquatic life with long lasting effects

Precautionary statements (CLP)

: P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P261 - Avoid breathing spray, mist
P271 - Use only outdoors or in a well-ventilated area
P273 - Avoid release to the environment
P280 - Wear protective clothing, eye protection, face protection

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P304+P340 - IF INHALED: Remove person to fresh air and keep 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
P310 - Immediately call a POISON CENTER/doctor/...
P312 - Call a POISON CENTER/doctor/... if you feel unwell
P391 - Collect spillage
P403+P233 - Store in a well-ventilated place. Keep container tightly closed
P405 - Store locked up
P501 - Dispose of contents/container according to local regulation

EUH-statements

: EUH208 - Contains Aqueous preparation of isothiazolinones(proprietary). May produce an allergic reaction

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	g/L	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Chlorothalonil (ISO); tetrachloroisophthalonitrile	(CAS No) 1897-45-6 (EC no) 217-588-1 (EC index no) 608-014-00-4	375	Acute Tox. 2 (Inhalation:dust,mist), H330 Carc. 2, H351 STOT SE 3, H335 Aquatic Acute 1, H400 (M=100) Aquatic Chronic 1, H410
1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazol-1-ylmethyl)pentan-3-ol	(CAS No) 107534-96-3 (EC no) 403-640-2 (EC index no) 603-197-00-7	125	Acute Tox. 4 (Oral), H302 Repr. 2, H361d Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of H-statements: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Call a physician or poison control center immediately. IF exposed or concerned: Get medical advice/attention. Call a poison center or a doctor if you feel unwell.

First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. When symptoms occur: go into open air and ventilate suspected area. Call a poison center or a doctor if you feel unwell.

First-aid measures after skin contact : When symptoms occur: rinse immediately with plenty of water. Wash skin with plenty of water.

First-aid measures after eye contact : Rinse eyes with plenty of water. Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician immediately.

First-aid measures after ingestion : Rinse mouth with water, do not induce vomiting, call a doctor. Call a poison center or a doctor if you feel unwell.

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

Symptoms/injuries after inhalation : May cause respiratory irritation.

Symptoms/injuries after eye contact : Serious damage to eyes.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : dry chemical powder, alcohol-resistant foam, carbon dioxide (CO₂). Water spray. Dry powder. Foam. Carbon dioxide.

Unsuitable extinguishing media : high volume water jet.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide, nitrogen oxides (NO_x).

Explosion hazard : Product is not explosive.

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Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Advice for firefighters

Precautionary measures fire : Wear self-contained breathing apparatus and protective suit (see item 8).
Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE).

6.1.1. For non-emergency personnel

Protective equipment : Wear personal protective equipment.
Emergency procedures : Ventilate spillage area. Avoid inhalation of vapour and spray mist. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.

6.1.2. For emergency responders

Protective equipment : Do not attempt to take action without suitable protective equipment. Wear a self-contained breathing apparatus and appropriate personal protective equipment (PPE). For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment. Do not allow material to contaminate ground water system.

6.3. Methods and material for containment and cleaning up

For containment : Do not allow material to contaminate ground water system. Collect spillage.
Methods for cleaning up : Take up liquid spill into absorbent material. Sweep or shovel spills into appropriate container for disposal. Notify authorities if product enters sewers or public waters.
Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Do NOT get in eyes, on skin or on clothing. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear personal protective equipment. Use only outdoors or in a well-ventilated area. Avoid breathing dust/fume/gas/mist/vapours/spray. Avoid contact with skin and eyes.
Hygiene measures : Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store tightly closed in a dry, cool and well-ventilated place. Store locked up. Store in a well-ventilated place. Keep container tightly closed. Keep cool.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No additional information available

8.2. Exposure controls

Appropriate engineering controls : Ensure good ventilation of the work station.
Hand protection : protective gloves
Eye protection : Safety glasses. Safety glasses
Skin and body protection : protective clothing
Respiratory protection : Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear respiratory protection
Environmental exposure controls : Avoid release to the environment.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

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Appearance	: Off-white.
Colour	: No data available
Odour	: No data available
Odour threshold	: No data available
pH	: 6.72 25°C
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: > 100 °C (boil)
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not applicable
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: 1.20872 20°C
Solubility	: No data available
Log Pow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Product is not explosive.
Oxidising properties	: Product is not an oxidizer
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Not applicable.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

None under recommended storage and handling conditions (see section 7).

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Harmful if inhaled.

Chlorothalonil 375g/L +Tebuconazole 125g/L SC	
LD50 oral rat	> 2500 mg/kg (RCC data)
LD50 dermal rat	> 2000 mg/kg (RCC data)
LC50 inhalation rat (mg/l)	1.32 mg/l (RCC data)
ATE CLP (vapours)	1.320 mg/l/4h
ATE CLP (dust,mist)	1.320 mg/l/4h

Skin corrosion/irritation	: Not irritant to skin
Serious eye damage/irritation	: May cause severe irreversible damage
Respiratory or skin sensitisation	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Suspected of causing cancer.
Reproductive toxicity	: May cause harm to the unborn child

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Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : Very toxic to aquatic life with long lasting effects.

Chlorothalonil 375g/L +Tebuconazole 125g/L SC	
LC50 fish 1	0.131 mg/l (96h, rainbow trout, Eurofins data)
EC50 Daphnia 1	0.277 mg/l (48h, Eurofins data)
ErC50 (algae)	< 3.25 mg/l (72h)
1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazol-1-ylmethyl)pentan-3-ol (107534-96-3)	
LC50 fish 1	4.4 mg/l rainbow trout -EPM
EC50 Daphnia 1	2.79 mg/l -EPM
ErC50 (algae)	3.8 mg/l Pseudokirchneriella subcapitata -EPM
ErC50 (other aquatic plants)	0.144 mg/l (14d, Lemna gibba, DAR)
Chlorothalonil (ISO); tetrachloroisophthalonitrile (1897-45-6)	
LC50 fish 1	0.0062
EC50 Daphnia 1	70 µg/l
ErC50 (algae)	0.0051 mg/l

12.2. Persistence and degradability

Chlorothalonil (ISO); tetrachloroisophthalonitrile (1897-45-6)	
Persistence and degradability	May cause long-term adverse effects in the environment.

12.3. Bioaccumulative potential

Chlorothalonil 375g/L +Tebuconazole 125g/L SC	
Log Pow	2.92 3.7 teu, 2.92 ch
1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazol-1-ylmethyl)pentan-3-ol (107534-96-3)	
Log Pow	3.7
Chlorothalonil (ISO); tetrachloroisophthalonitrile (1897-45-6)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Results of PBT and vPvB assessment

No additional information available

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste)	: Disposal must be done according to official regulations.
Waste treatment methods	: Dispose of contents/container in accordance with licensed collector's sorting instructions.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR)	: 3082
UN-No. (IMDG)	: 3082
UN-No. (IATA)	: 3082
UN-No. (ADN)	: Not applicable
UN-No. (RID)	: 3082

14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper Shipping Name (IMDG)	: Not applicable
Proper Shipping Name (IATA)	: Not applicable

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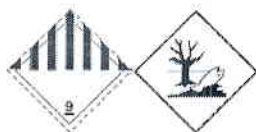
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Proper Shipping Name (ADN)	: Not applicable
Proper Shipping Name (RID)	: Not applicable
Transport document description (ADR)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Chlorothalonil/Tebuconazole), 9, III, (E)
Transport document description (IMDG)	: UN 3082 , 9, III, MARINE POLLUTANT/ENVIRONMENTALLY HAZARDOUS
Transport document description (IATA)	: UN 3082 , 9, ENVIRONMENTALLY HAZARDOUS
Transport document description (RID)	: UN 3082 , 9, ENVIRONMENTALLY HAZARDOUS

14.3. Transport hazard class(es)

ADR

Transport hazard class(es) (ADR)	: 9
Danger labels (ADR)	: 9



IMDG

Transport hazard class(es) (IMDG)	: 9
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IATA

Transport hazard class(es) (IATA)	: 9
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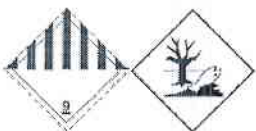
ADN

Transport hazard class(es) (ADN)	: Not applicable
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RID

Transport hazard class(es) (RID)	: 9
Danger labels (RID)	: 9



14.4. Packing group

Packing group (ADR)	: III
Packing group (IMDG)	: III
Packing group (IATA)	: Not applicable
Packing group (ADN)	: Not applicable
Packing group (RID)	: Not applicable

14.5. Environmental hazards

Dangerous for the environment	: Yes
Marine pollutant	: Yes

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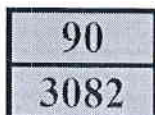
according to Regulation (EC) No. 453/2010

Other information : No supplementary information available

14.6. Special precautions for user

- Overland transport

Classification code (ADR) : M6
Excepted quantities (ADR) : E1
Hazard identification number (Kemler No.) : 90
Orange plates :



Tunnel restriction code (ADR) : E
EAC code : •3Z

- Transport by sea

No data available

- Air transport

No data available

- Inland waterway transport

No data available

- Rail transport

No data available

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

Not applicable

SECTION 15: Regulatory information

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

15.1.1. EU-Regulations

Contains no substances with Annex XVII restrictions
Contains no substance on the REACH candidate list
Contains no REACH Annex XIV substances

15.1.2. National regulations

Germany

VwVwS Annex reference : Water hazard class (WGK) 3, severe hazard to waters (Classification according to VwVwS, Annex 4)
12th Ordinance Implementing the Federal Immission Control Act - 12.BImSchV : Is not subject of the 12. BImSchV (Hazardous Incident Ordinance)

Netherlands

SZW-lijst van kankerverwekkende stoffen : None of the components are listed
SZW-lijst van mutagene stoffen : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Borstvoeding : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Vruchtbaarheid : None of the components are listed
NIET-limitatieve lijst van voor de voortplanting giftige stoffen – Ontwikkeling : 1-(4-chlorophenyl)-4,4-dimethyl-3-(1,2,4-triazol-1-ylmethyl)pentan-3-ol is listed

Denmark

Recommendations Danish Regulation : Young people below the age of 18 years are not allowed to use the product
Pregnant/breastfeeding women working with the product must not be in direct contact with the product
The requirements from the Danish Working Environment Authorities regarding work with carcinogens must be followed during use and disposal

15.2. Chemical safety assessment

No chemical safety assessment has been carried out

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SECTION 16: Other information

Full text of H- and EUH-statements:

Acute Tox. 2 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 2
Acute Tox. 4 (Oral)	Acute toxicity (oral), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Aquatic Chronic 1	Hazardous to the aquatic environment — Chronic Hazard, Category 1
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Carc. 2	Carcinogenicity, Category 2
Repr. 2	Reproductive toxicity, Category 2
Skin Corr. 1B	Skin corrosion/irritation, Category 1B
Skin Sens. 1	Sensitisation — Skin, category 1
STOT SE 3	Specific target organ toxicity — Single exposure, Category 3, Respiratory tract irritation
H302	Harmful if swallowed
H314	Causes severe skin burns and eye damage
H317	May cause an allergic skin reaction
H318	Causes serious eye damage
H330	Fatal if inhaled
H332	Harmful if inhaled
H335	May cause respiratory irritation
H351	Suspected of causing cancer
H361	Suspected of damaging fertility or the unborn child
H361d	Suspected of damaging the unborn child
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
H412	Harmful to aquatic life with long lasting effects
EUH208	Contains . May produce an allergic reaction

SDS EU (REACH Annex II)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product