

SECTION 1: Identification of the substance/mixture and of the company/undertaking**1.1. Product identifier**

Product form : Mixture
Product name : THIANOSAN DG
Product code : TO 079 1293
Type of formulation : Water dispersable (WG)
Active Ingredient : Thiram

1.2. Relevant identified uses of the substance or mixture and uses advised against**2.1. Relevant identified uses**

Main use category : Plant protection product for professional use. Agriculture.
Use of the substance/mixture : Fungicide.

1.2.2. Uses advised against

No additional information available.

1.3. Details of the supplier of the safety data sheet

CERTIS UK
1 Riverside
Granta Park
Great Abington
Cambridgeshire CB21 6AD
United Kingdom
Tel: +44 (0)845 373 0305
Fax: +44 (0)1223 891210
Email: certis@certiseurope.co.uk
Website: www.certiseurope.co.uk

1.4. Emergency telephone number

Emergency number : Certis Carechem24 multilingual 24 hours emergency number: +44 (0) 870 190 6777.
For advice on medical emergencies, fires, spillages or chemical hazards only –phone: 0870 190 6777.
For further advice for medical professionals - The National Poisons Information Service:
Tel: 0870 600 6266 (UK only) or Dublin Tel: 0035 3 137 99 64/379966.
For further advice for veterinary surgeons: 020 7635 9195.

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification according to Directive 67/548/EEC or 1999/45/EC**

Xn; N;
R20/22
R48/22
R43
R50/53

Full text of R-phrases: see section 16.

Adverse physicochemical, human health and environmental effects

Harmful by inhalation and if swallowed. May cause sensibilisation by skin contact. Harmful: danger of serious damage to health by prolonged exposure if swallowed. Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

2.2. Label elements

Labelling according to Directive 67/548/EEC or 1999/45/EC

Hazard symbols :



Xn - Harmful



N - Dangerous for the environment

R-phrases :

- R20/22 - Harmful by inhalation and if swallowed.
- R43 - May cause sensibilisation by skin contact.
- R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed.
- R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrases :

- S2 - Keep out of the reach of children.
- S13 - Keep away from food, drink and animal feedingstuffs.
- S20/21 - When using do not eat, drink or smoke.
- S24 - Avoid contact with skin.
- 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 - Wear suitable protective clothing and gloves.
- S45 - In case of accident or if you feel unwell, seek medical advice immediately (show the label where possible).
- S46 - If swallowed, seek medical advice immediately and show this container or label.
- S29/35 - Do not empty into drains; dispose of this material and its container in a safe way.
- S57 - Use appropriate container to avoid environmental contamination.
- S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

2.3. Other hazards

No additional information available.

SECTION 3: Composition/information on ingredients

3.1. Substances

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification according to Directive 67/548/EEC
Thiram	(CAS No) 137-26-8	80	Xn; R20/22 Xn; R48/22 Xi; R36/38 Xi; R43 N; R50/53

Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Thiram	(CAS No) 137-26-8	80	Acute Tox. 4 (Oral), H302 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Eye Irrit. 2, H319 Skin Sens. 1, H317 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

Full text of R-, H- and EUH-phrases: see section 16.

SECTION 4: First aid measures

4.1. Description of first aid measures

- First-aid measures general : In the event of any complaints or symptoms, avoid further exposure.
- First-aid measures after inhalation : IF INHALED: If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If symptoms persist call a doctor.
- First-aid measures after skin contact : IF ON SKIN: Wash with plenty of soap and water. Remove contaminated clothing and shoes.
If skin irritation or rash occurs: Get medical advice/attention.
- First-aid measures after eye contact : IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Consult an eye specialist.
- First-aid measures after ingestion : IF SWALLOWED: Immediately call a POISON CENTER or doctor. Never give anything by mouth to an unconscious person.

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

- Symptoms/injuries : No information available.

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 : Water spray
 Dry chemical powder
 Alcohol resistant foam
 Carbon dioxide (CO₂).
- Unsuitable extinguishing media : Jet of water.

5.2. Special hazards arising from the substance or mixture

- Fire hazard : Dust may form explosive mixture in air. Heating can release hazardous gases.

5.3. Advice for firefighters

- Firefighting instructions : Exercise caution when fighting any chemical fire.
- Fight fire from safe distance and protected location.
- Do not breathe fumes
- Cool closed containers exposed to fire with water spray
- If possible, take the containers out of dangerous zone.
- Contain fire-fighting water with dikes or absorbents to prevent migration and entry into sewers or streams.
- Protection during firefighting : Wear suitable protective clothing, gloves, eye/face protection and respiratory protection
- Wear a self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

- Protective equipment : Wear suitable protective clothing, gloves and eye or face protection.
- Emergency procedures : Evacuate area.
- Ensure adequate ventilation.
- Avoid direct contact with the substance.
- Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams.

6.2. Environmental precautions

- Prevent entry to sewers and public waters.
- Notify the authorities if product enters sewers or public waters.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Clean up any spills as soon as possible, using an absorbent material to collect it.
- Once absorbed collect spilled material with shovels, buckets and place in closed containers and label properly.
- Remove as chemical waste, according to national or local legislation.
- In the event of major spillage: contact an expert.

6.4. Reference to other sections

- No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Read label before use.
- Avoid contact with eyes, skin, nose and mouth.
- Wear suitable protective clothing, gloves and eye/face protection.
- Opened containers must be carefully closed and kept upright to avoid leakage.

Hygiene measures : Always wash your hands immediately after handling this product, and once again before leaving the workplace.
 Contaminated work clothing should not be allowed out of the workplace.
 Do no eat, drink or smoke when using this product.
 Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide adequate ventilation.
 Storage conditions : Prevent unauthorised access.
 Keep locked up and out of the reach of children.
 Keep in original containers, tightly closed.
 Keep away from food, drink and animal feedingstuffs.
 Protect against frost.
 Keep away from heat and direct sunlight.

7.3. Specific end use(s)

Fungicide for agricultural use. Refer to the label.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Thiram : TWA : 0.05 mg/m³ (Inhalable fraction and vapor).

8.2. Exposure controls

Appropriate engineering controls : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Protective clothing. Protective goggles. Gloves. Dust/aerosol mask.



Hand protection : Wear impervious gloves resistant to chemical. Nitrile rubber.

Eye protection : Safety goggles or a face shield.

Skin and body protection : Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.

Respiratory protection : Wear mask with particle filter P3 (European Norm 143).

In case of higher concentration wear self-contained breathing apparatus (EN 133)

Hygiene measures : Do not eat, drink or smoke while handling the product.

Clean gloves with soap and water before removing.

Wash hands and face with soap and water before eating, drinking or smoking.

Clean equipment, premises and work clothes regularly.

Work clothing should remain on the work area and stored separately from street clothes.

Environmental exposure controls : Discharge into the environment must be avoided.

Do not contaminate surface and groundwater.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Granules.

Colour : Brown.

Odour	: No data available
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Self ignition temperature	: 235 °C
Decomposition temperature	: No data available
Flammability (solid, gas)	: Non flammable.
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.6 g/ml
Solubility	: No data available
Log Pow	: 1.73
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No explosive properties.
Oxidising properties	: No oxidising properties.
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

The product is stable at normal handling and storage conditions.

10.2. Chemical stability

The product is stable at normal handling and storage conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization does not occur.

Is not explosive and does not exhibit oxidant properties.

10.4. Conditions to avoid

Avoid dust formation. humid air and water. Heat.

10.5. Incompatible materials

Decomposes by reaction with strong acids.

10.6. Hazardous decomposition products

Combustion or thermal decomposition may generate toxic vapours: chlorine compounds, nitrogen oxides, carbon monoxide, hydrocarbons.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if swallowed.

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LD50 oral rat	1.407 mg/kg
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LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat	4.4 mg/l/4h

Irritation	: Not classified
Corrosivity	: Not classified
Sensitisation	: May cause sensibilisation by skin contact.
Repeated dose toxicity	: Harmful: danger of serious damage to health by prolonged exposure if swallowed.
Carcinogenicity	: Not classified
Mutagenicity	: Not classified
Toxicity for reproduction	: Not classified

Human experience : May cause cardiac arrhythmia, headache, eczema, dermatitis, nausea, Shortness of breath, Allergic reactions.
More severe effects if alcohol is consumed

SECTION 12: Ecological information
12.1. Toxicity
THIANOSAN DG

LC50 Fishes	0.046 - 1.20mg/l
EC50 Daphnia (<i>Daphnia magna</i>)	0.2 mg/l (48h)
EC50 Algae	0.14 mg/l

12.2. Persistence and degradability

Degradation half life after 2-7 days.

12.3. Bioaccumulative potential
THIANOSAN DG

Log Pow	1.73
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12.4. Mobility in soil

Koc = 2245-24526

12.5. Results of PBT and vPvB assessment

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

This mixture contains no substance considered to be very persistent and very bioaccumulative (vPvB).

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations
13.1. Waste treatment methods

Waste treatment methods : Apply triple washing procedure of the empty container and place the rinse water in the tank or container where the mixture is prepared. Handle empty containers and waste as established by the competent authorities.

SECTION 14: Transport information

In accordance with ADR / RID / ADNR / IMDG / ICAO / IATA

14.1. UN number

UN-No. : 3077

UN-No.(IATA) : 3077

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiram).

Transport document description : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Thiram)., 9, III

14.3. Transport hazard class(es)

Class (UN) : 9

Class (IATA) : 9 - Miscellaneous dangerous goods.

14.4. Packing group

Packing group (UN) : III

14.5. Environmental hazards

Dangerous for the environment :



Other information : No supplementary information available.

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (UN) : M7

Special provision (ADR) : 274, 335, 601

Transport category (ADR) : 3

14.6.2. Transport by sea

No additional information available

14.6.3. Air transport

No additional information available

14.7. Transport in bulk according to Annex II of MARPOL 73/78 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

No REACH Annex XVII restrictions

Contains no REACH candidate substance

15.1.2. National regulations

No additional information available.

15.2. Chemical safety assessment

No additional information available

SECTION 16: Other information

Full text of R-, H- and EUH-phrases::

Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
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
Eye Irrit. 2	Serious eye damage/eye irritation Category 2
Skin Irrit. 2	skin corrosion/irritation Category 2
Skin Sens. 1	Skin sensitisation Category 1
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H373	May cause damage to organs through prolonged or repeated exposure
H400	Very toxic to aquatic life
H410	Very toxic to aquatic life with long lasting effects
R20/22	Harmful by inhalation and if swallowed
R22	Harmful if swallowed
R36/37	Irritating to eyes and respiratory system
R36/38	Irritating to eyes and skin
R43	May cause sensibilisation by skin contact.
R48/22	Harmful: danger of serious damage to health by prolonged exposure if swallowed
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

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.