

Safety data sheet in accordance with 2001/58/EC

Prepared : April 28, 2000

Version : 7 Revised : Apr. 01, 2008

**1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY/UNDERTAKING**

1-1 Identification of the substance or preparation

**Thiophanate-Methyl WDG**

1-2 Use of the substance / preparation

Fungicide for agricultural use

1-3 Company / undertaking identification

1) Distributor's Name :

Address (Number, Street, City, State and Zip Code) :

Telephone Number :

Telefax Number :

2) Manufacture's Name : Nisso Chemical Europe GmbH.

Address : Steinstrasse 27, 40210 Duesseldorf Germany

TEL No. : +49-(0)211-323-0135

Fax No. : +49-(0)211-323-231

E-Mail Address : sds@nisso-chem.de

1-4 Emergency Telephone Number :

Beratungsstelle fuer Vergiftungserscheinungen Mainz

Telephone Number : +49-(0)6131-19240

Telefax Number : +49-(0)6131-232469

**2.COMPOSITION / INFORMATION ON INGREDIENTS**

2-1 Specific Chemical Identity ; Common Name(s) Content

Active Ingredient

Dimethyl 4,4'-(*o*-phenylene)bis(3-thioallophanate)  $\geq 70 \%$ 

( ISO Name : Thiophanate-methyl, CAS No. 23564-05-8 )

Filler 9 %

Additive(Surfactant)  $\leq 21 \%$ 

2-2 Classified as dangerous according to Directive 1999/45/EC ANNEX III

Index No. 006-069-00-3

1,2-di-(3-methoxycarbonyl-2-thioureido)benzene  $\geq 70\%$ 2-3 Hazard Symbol : Xn : Harmful  
N Dangerous for the environmentRisk - Phrases : R 20 Harmful by inhalation.  
R 22 Harmful if swallowed.  
R 43 May cause sensitization by skin contact.  
R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.  
R 68 Possible risk of irreversible effects.

2-4 Other information

Active ingredient

EINECS No. : 2457407

ELINCS No. : not applicable

**3. HAZARD IDENTIFICATION**

- 3-1 Human health hazards : Harmful by inhalation.  
Harmful if swallowed.  
May cause sensitization by skin contact.
- 3-2 Safety hazards : May cause powder explosion mixture with air.
- 3-3 Environmental hazards : Dangerous for the environment.
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**4. FIRST AID MEASURES**

- 4-1 Eye Contact : Immediately flush eyes with plenty of water for at least 5 minutes.  
Get medical advice if irritation persists.
- 4-2 Skin Contact : Wash skin with soap and water. Get medical help if irritation persists.
- 4-3 Inhalation : Remove to fresh air. If not breathing, give artificial respiration.  
If breathing is difficult, give oxygen. Call a physician.
- 4-4 Ingestion : Immediately wash out mouth with water, induce vomiting with giving one/two glasses of water or milk. Call a physician.
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**5. FIRE - FIGHTING MEASURES**

- 5-1 Suitable extinguishing media : Dry chemicals, Carbon dioxide, Alcohol foam or water spray.
- 5-2 Unsuitable extinguishing media : Not known.
- 5-3 Unusual Fire and Explosion Hazards :  
Thermal decomposition or combustion may produce carbon dioxide, carbon monoxide, sulfur oxides and nitrogen oxides.
- 5-4 Protective equipment :  
Wear self-contained breathing apparatus and complete personal protective equipment.
- 5-5 Other information :  
Move containers away from fire areas if it can be done without risk.  
If impossible to remove containers from fire zone, cool them with water spray.
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**6. ACCIDENTAL RELEASE MEASURES**

- 6-1 Personal protection : Refer to Section 8 for personal protective equipment.
- 6-2 Personal precautions : Avoid raising dust.
- 6-3 Environmental precautions: Prevent from entering into drains, ditches or rivers.
- 6-4 Methods for cleaning :  
Sweep up, place in a bag and hold for waste disposal. Wash spill site with soap and plenty of water after material pick-up is complete. Obey Federal, State or local Regulations for health and environmental protection when discharging treated water to sea, river or lake etc. Refer to heading 8 and 13.
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**7. HANDLING AND STORAGE**

- 7-1 Handling : Refer to Section 8 for personal protective equipment.  
Handle as an organic dust.  
Avoid release to environment.  
Avoid contact with eyes, skin and clothing.  
Avoid breathing dust.  
Use only in a well ventilated areas, or chemical fume hood.

Wash thoroughly after handling.  
Keep out of the reach of children.

7-2 Storage : Keep in container tightly closed.  
Store in a cool dry place.  
Protect from direct contact with water or excessive moisture, acids or bases.

7-3 Specific use : Fungicide for agricultural use. All our recommendations for this use are contained in above-mentioned instruction for Handling and Storage.

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## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8-1 Exposure limit values : TLV/ACGIH(2002) not listed.

8-2 Exposure controls : Use general and/or local exhaust ventilation to control dusts

8-2-1 Occupational exposure controls

8-2-1-1 Respiratory protection : Appropriate respirator for dust.

8-2-1-2 Hand protection : Gloves material ; e.g. outside Vinyl chloride resin  
inside Cotton , rayon

8-2-1-3 Eye protection : Use safety glasses. If there is a potential to exposure for dust, wear safety goggles.

8-2-1-4 Skin protection : Wear suitable working clothes, hand protection(cf. 8-2-1-2) and boots.

8-2-2 Environmental exposure controls : Use general and/or local exhaust ventilation to control dusts. Prevent form entering into drains, ditches or rivers.

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## 9. PHYSICAL AND CHEMICAL PROPERTIES

9-1 General information

Form : Solid powder(fine granule)  
Color : Pale brown  
Odor : Slight sulfurous odour

9-2 Important health, safety and environmental information

pH-Value : Not available  
Boiling Point : Not applicable  
Flash Point : Not applicable  
Flammability : Not highly flammable  
Dust Explosive Properties : Not available  
Vapor Pressure : Not applicable  
Relative Density : Not available  
Specific Gravity : 0.6Kg/L(bulk density)

Solubility

a) Water solubility : Negligible, but, dispersible  
b) Fat solubility : Not applicable

Partition Coefficient

n-Octanol/H<sub>2</sub>O : log P<sub>o/w</sub> = 1.50 (active ingredient)

Further Data

Surface Tension : Not applicable

Particle Size Distribution : Not available

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Vapor Density(air=1) Not applicable  
Evaporation Rate(Butyl Acetate=1) Not applicable

## 9-3 Other information

Melting Point Not applicable  
Auto Flammability None  
Ignition Point Not available

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**10. STABILITY AND REACTIVITY**

10-1 Condition to avoid High temperature

10-2 Materials to avoid Oxidizing agents, strong acids or bases

10-3 Hazardous decomposition products

Thermal decomposition or combustion may produce carbon dioxide, carbon monoxide, sulfur oxides and nitrogen oxides.

10-4 Other Information No information.

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**11. TOXICOLOGICAL INFORMATION**

## 11-1 Irritation

Eyes (rabbit): weak

Dermal (rabbit): weak

## 11-2 Sensitization

Dermal (rabbit): Positive

## 11-3 Toxicity

Oral(rat) : LD<sub>50</sub> : 2465mg/kg(male), 1671mg/kg(female) .Dermal(rat): LD<sub>50</sub> > 2000mg/kgInhalation(rat) : LC<sub>50</sub> > 0.025mg/L/4hr ( experimental limit concentration)

## 11-4 Subchronic Toxicity (Active ingredient)

90-days repeated dose test

NOEL(rat) : 1600ppm (120mg/kg/day: 90days)

## 11-5 Mutagenicity(Active ingredient)

Ames test: Negative

Chromosomal aberration : Negative

Rec-Assay: Negative

UDS test: Negative

## 11-6 Chronic Toxicity and Carcinogenicity(Active ingredient)

Chronic toxicity/Carcinogenicity test(2years)

NOEL(mouse) : 16mg/kg/day(male and female) Carcinogenicity : negative

NOEL(rat) : 8.8mg/kg/day(male), 10.2 mg/kg/day(female) Carcinogenicity : negative.

## 11-7 Teratogenicity (Active ingredient)

Teratogenicity(rat) : negative

Teratogenicity (rabbit): : negative

## 11-8 Reproductive Toxicity(Active ingredient)

3 generations reproductive test(rat) :

Reproductive Toxicity:negative

**12. ECOLOGICAL INFORMATION**

## 12-1 Ecotoxicity:

|                            |   |
|----------------------------|---|
| Acute Toxicity to Fish :   | LC <sub>50</sub> (Carp) >100 mg/L (96hrs)         |
| Acute Toxicity to Daphnia: | EC <sub>50</sub> (Daphnia magna) 4.2 mg/L (48hrs) |
| Acute Toxicity to Algae:   | EC <sub>50</sub> (Green Algae) > 26 mg/L (96hrs)  |

12-2 Mobility: No information

## 12-3 Persistence and degradability(Active ingredient):

|                                 |                        |
|---------------------------------|------------------------|
| Bio-degradation test in water : | Not good degradability |
| Photo-degradation in water :    | Good degradability     |
| Degradation in soil :           | Good degradation       |
| Bio-degradation in soil :       | Good degradation       |

12-4 Bio-accumulative potential: Not available

12-5 Other adverse effects: Not available

**13. DISPOSAL CONSIDERATIONS**

- 1) Mix the material with sawdust or combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber.
- 2) Do not discharge into waterway or sewer systems unless permission has been obtained by the local authority and suitable dilution has been established.
- 3) Contaminated empty containers must be disposed of as chemical waste.
- 4) Observe all Federal, State and local laws concerning health and pollution.

**14. TRANSPORT INFORMATION**

## 14-1 IMDG

|                      |  |                     |
|----------------------|--|---------------------|
| Proper shipping name | Environmentally Hazardous Substance, Solid, n. o. s. |                     |
| UN No. 3077          | Hazard Class: 9                                      | Packaging group : 3 |
| Marine pollutant     | applicable   |                     |

## 14-2 RID/ ADR

|                |  |  |
|----------------|--|--|
| Identification | Environmentally Hazardous Substance, Solid, n. o. s. |  |
| UN No. 3077    | Hazard Class 9                                       |  |
| Hazard No. 90  | Packing group: 3                                     |  |

## 14-3 ICAO/IATA-DGR

|                      |  |                  |
|----------------------|--|------------------|
| Proper shipping name | Environmentally Hazardous Substance, Solid, n. o. s. |                  |
| UN No. 3077          | Hazard Class: 9                                      | Packing group: 3 |

14-4 Other Information No information

**15. REGULATORY INFORMATION**

Labeling according to 67/548/EEC Directives

Hazard Symbol : Xn Harmful ,  
N Dangerous for the environment

Risk – Phrases :

|      |  |
|------|--|
| R 20 | Harmful by inhalation.                   |
| R 22 | Harmful if swallowed.                    |
| R 43 | May cause sensitization by skin contact. |

R 51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

R 68 Possible risk of irreversible effects

Safety-Phrase :

S 2 Keep out of the reach of children.

S 36/37 Wear suitable protective clothing and gloves.

S 60 This material and its container must be disposed of as hazardous waste.

S 61 Avoid release to the environment. Refer to special instructions/Safety data sheets.

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## 16. OTHER INFORMATION

16-1 VOC: 0%

16-2 Added ,deleted or revised information.

16-2-1 This safety data sheet is revised in accordance with 2001/58/EC.

16-2-2 Deleted information :

Risk – Phrases : R 40 Possible risks of irreversible effects.

Safety-Phrase : S 22 Do not breath dust.

S 46 If swallowed, seek medical advice immediately and show this container or label.

S22 and S46 were deleted according to Annex IA of EC Directive 2001/59/EC.

16-2-3 Added information:

2-3 R-phrase, and 15 Regulatory Information.

R-phrase : R 22.

3-1 Human health hazards : May cause sensitization by skin contact

## 9. PHYSICAL AND CHEMICAL PROPERTIES

Some physical and chemical properties data is added.

11-4 Sub-acute Toxicity

The data about the active ingredient.

11-5 Mutagenicity

The data of Chromosome aberration test, Rec-Assay and UDS-test about the active ingredient.

11-6 Chronic Toxicity and Cacinogenicity

The data about the active ingredient.

11-7 Teratogenicity

The data about the active ingredient.

11-8 Reproductive Toxicity

The data about the active ingredient.

12-1 Ecotoxicity

Acute Toxicity to Algae.

12-3 Persistence and degradability

The data about the active ingredient.

## 15. REGULATORY INFORMATION

Risk – Phrases R 68 Possible risk of irreversible effects.

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## 16-2-4 Revised information:

Chemical name (item 2-1 and 2-2) is revised in accordance with Directive 67/548/EEC.

Old name : Dimethyl[1,2-phenylenebis(iminocarbonothioyl)]-biscarbamate

New name : 1,2-di-(3-methoxycarbonyl-2-thioureido)benzene

## 2-3 R-phrase, and 15 Regulatory Information

R-phrase : R 50/53 was revised to R51/53 according to the ecotoxicity data.

## 11-1 Irritation Eyes : Revised "mild" to "weak"

Dermal : Revised "mild" to "weak"

## 11-2 Sensitization Dermal : Revised "mild" to "Positive".

The information contained in this data sheet is, to the best of our knowledge, true and accurate, but any recommendations or suggestions, which may be made, are without guarantee, since the conditions of use are beyond our control. Furthermore, nothing contained herein shall be construed as a recommendation to use any production conflict with existing patents covering any material or its use.

The information contained herein is based on the present state of our knowledge and does not therefore guarantee certain properties.

Recipients of our product must take responsibility for observing existing laws and regulations.

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