

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

### 1.1. Product identifier

Product form : Mixture  
Product name : TAURUS  
Product code : NI 020 C0053  
Type of formulation : Water dispersible (WG)  
Active Ingredient : Thiophanate-methyl

### 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

#### Supplier:

Nisso Chemical Europe GmbH  
Address : Berliner Allee 42  
40212 Düsseldorf, Germany  
T +49-(0)211-130 66 86 0  
F : +49-(0)211-328231  
[sds@nisso-chem.de](mailto:sds@nisso-chem.de)

#### Distributor:

Suite 5, 3 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](mailto:certis@certiseurope.co.uk)  
Website: [www.certiseurope.co.uk](http://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 Regulation (EC) No. 1272/2008 [CLP]

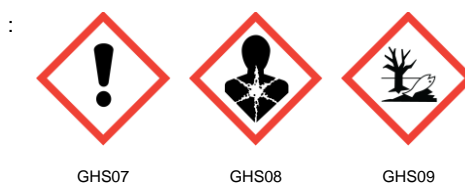
Acute Tox. 4 (Oral)	H302
Acute Tox. 4 (Inhalation)	H332
Skin Sens. 1	H317
Muta. 2	H341
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of H-phrases: see section 16.

### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Warning

Hazard statements (CLP)

: H302 - Harmful if swallowed.  
H317 - May cause an allergic skin reaction.  
H332 - Harmful if inhaled.  
H341 - Suspected of causing genetic defects.  
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 dust.  
P270 - Do not eat, drink or smoke when using this product.  
P271 - Use only outdoors or in a well-ventilated area.  
P273 - Avoid release to the environment.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P405 - Store locked up.  
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.

EUH phrases

: EUH401 - To avoid risks to human health and the environment, comply with the instructions for use.

### 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	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Thiophanate-methyl	(CAS No) 23564-05-8 (EC no) 245-740-7 (EC index no) 006-069-00-3	71,4	Muta. 2, H341 Acute Tox. 4 (Inhalation), H332 Skin Sens. 1, H317 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
Sodium alkylaphtalene sulphonate	(CAS No) 27213-90-7 (EC no) 248-326-4	2	Acute Tox. 4 (Oral), H302 Skin Irrit. 2, H315 Eye Irrit. 2, H319

Full text of H-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 (CO<sub>2</sub>).
- Unsuitable extinguishing media : Jet of water.

### 5.2. Special hazards arising from the substance or mixture

- Fire hazard : Combustion or thermal decomposition may generate toxic vapours.

### 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

- Reference to other sections (8, 13).

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

- Precautions for safe handling : Read label before use.
- Do not handle until all safety precautions have been read and understood.
- Use only with adequate ventilation.
- Avoid contact with eyes, skin, nose and mouth.
- Avoid breathing dust.
- Wear suitable protective clothing, gloves and eye/face protection.
- Opened containers must be carefully closed and kept upright to avoid leakage.
- Keep out of reach of children.
- Handle as an organic dust.
- 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 not 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.
- Store in a cool, dry, well-ventilated place. Store locked up.
- Keep out of the reach of children.
- Keep in original containers, tightly closed.
- Keep away from food, drink and animal feedingstuffs.
- Protect against frost.
- Protect from direct contact with water or excessive moisture, acids or bases.
- Keep away from heat and direct sunlight.

### 7.3. Specific end use(s)

Insecticide for agricultural use. Refer to the label.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

Thiophanate-methyl (23564-05-8): TLV/ACGIH (2012) – not listed.

### 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.
- Use general and/or local exhaust ventilation to control dust.
- Hand protection : Wear impervious gloves resistant to chemical.
- Gloves material ; e.g. outside Vinyl chloride resin; inside Cotton, rayon.
- Eye protection : Safety goggles.

Skin and body protection	: Protective clothing with long sleeves waterproof and resistant to chemicals. Rubber boots.
Respiratory protection	: Wear appropriate respirator for dust.
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	: Powder (fine granule)
Colour	: Pale brown.
Odour	: Slight sulfurous odour.
Odour threshold	: No data available
pH	: 5,5 – 6,0 (1%)
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: Not applicable.
Freezing point	: Not applicable.
Boiling point	: Not applicable.
Flash point	: No data available
Self ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: Not highly flammable.
Vapour pressure	: $<1.3 \times 10^{-5}$ Pa; 25°C (as active ingredient)
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: 0.6 kg/l (bulk density)
Solubility	: Negligible but dispersible.
Log Pow	: 1.44 (as active ingredient)
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: Not applicable.
Oxidising properties	: No data available
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**

High temperature.

**10.5. Incompatible materials**

Oxidizing agents. Strong acids. Strong bases.

**10.6. Hazardous decomposition products**

Combustion or thermal decomposition may generate toxic vapours.

**SECTION 11: Toxicological information**

**11.1. Information on toxicological effects**

Acute toxicity : Harmful by inhalation.

THIOPHANATE-METHYL WDG	
LD50 oral rat	2456 mg/kg (male); 1671 mg/kg (female)
LD50 dermal rat	> 2000 mg/kg (male, female)
LC50 inhalation rat	> 0.025 mg/l/4h (male, female)

Thiophanate-methyl (23564-05-8)	
LC50 inhalation rat	1.7 mg/L/4hr (male) , 1.9 mg/L/4hr (female)

Skin Irritation : Weak irritant to skin (Effects were well below threshold for classification)

Eye Irritation : Weak eye irritation (Effects were well below threshold for classification)

Corrosivity : Not classified

Sensitisation : Skin sensitizer to guinea pig.

Repeated dose toxicity : Not classified

Carcinogenicity : Not classified  
 Not carcinogenic in rats and mice.

Mutagenicity (**Thiophanate-methyl**) : AMES test: Negative  
 Chromosomal aberration test: Negative.  
 Rec Assay: Negative.  
 UDS test: Negative  
 Micronucleus test: Positive

Toxicity for reproduction (**Thiophanate-methyl**) : Not classified.  
 STOT-repeated exposure: Not available  
 STOT-single exposure: Not available

Reproductive toxicity (**Thiophanate-methyl**) : 3 generations reproductive test (rat): Negative.

Other information : Tetratogenicity (**Thiophanate-methyl**): Negative (rat); Negative (rabbit)  
 Chronic Toxicity: NOAEL(rat) : 8.8mg/kg/day(male), 10.2 mg/kg/day(female) (2 years);  
 NOAEL(mouse) : 98.6 mg/kg/day(male), 28.7 mg/kg/day(female) (1,5 years).

**SECTION 12: Ecological information**

**12.1. Toxicity**

THIOPHANATE-METHYL WDG	
LC50 Fishes	> 12 mg/l (96hrs)
EC50 Daphnia	4.2 mg/l (48hrs)
Chronic Toxicity to Daphnia (NOEC)	0,078mg/l (21 days)
ErC50 Algae	> 100 mg/l (96hrs)

**12.2. Persistence and degradability**

<b>Thiophanate-methyl (23564-05-8)</b>	
Bio-degradation test	Not good degradability.
Degradation test	Good degradability.

**12.3. Bioaccumulative potential**

<b>THIOPHANATE-METHYL WDG</b>	
Log Pow	1.44
Bioaccumulative potential	No data available.

**12.4. Mobility in soil**

<b>THIOPHANATE-METHYL WDG</b>	
Ecology - soil	No data 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**

Waste treatment methods : Dispose in a safe manner in accordance with local/national regulations.

**SECTION 14: Transport information**

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

**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. (Thiophanate-methyl)  
 Transport document description : UN 3077 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.( Thiophanate-methyl), 9, III, (E)

**14.3. Transport hazard class(es)**

Class (UN) : 9  
 Class (IATA) : 9 - Miscellaneous Dangerous Goods  
 Hazard labels (UN) : 9



**14.4. Packing group**

Packing group (UN) : III



**14.5. Environmental hazards**

Dangerous for the environment :



Other information : No supplementary information available.

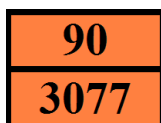
**14.6. Special precautions for user**

**14.6.1. Overland transport**

Hazard identification number (Kemler No.) : 90

Classification code (UN) : M7

Orange plates :



**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**

**Autres informations**

Data sources : Safety Data Sheet Thiophanate methyl WDG of Nisso Chemical Europe GmbH, version 14, revision :27/10/ 2014.

Indication of changes:

Change date	Previous Version	Section	Changed Item	Change	Comments
06/11/2014	2.0	1.1	Composition code: 0053	modified	In comparison with Version 11 of NISSO (October 13, 2011)
		3.1	Thiophanate methyl %	modified	In comparison with Version 11 of NISSO (October 13, 2011)
			Sodium alkylnaphtalene sulphonate %	modified	In comparison with Version 11 of NISSO (October 13, 2011)
			Sodium alkylnaphtalene sulphonate CLASSIFICATION (DSD, CLP)	modified	In comparison with Version 11 of NISSO (October 13, 2011)
		11.0	LD50 oral rat, LC50 inhalation rat, skin irritation, skin sensitization.	modified	In comparison with Version 11 of NISSO (October 13, 2011)
12	LC50 Fishes, EC50 Daphnia, ErC50 Algae	modified	In comparison with Version 11 of NISSO (October 13, 2011)		

## Full text of H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
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
Aquatic Chronic 3	Hazardous to the aquatic environment — Chronic Hazard, Category 3
Eye Irrit. 2	Serious eye damage/eye irritation, Category 2
Muta. 2	Germ cell mutagenicity, Category 2
Skin Irrit. 2	Skin corrosion/irritation, Category 2
Skin Sens. 1	Sensitisation — Skin, category 1
H302	Harmful if swallowed
H315	Causes skin irritation
H317	May cause an allergic skin reaction
H319	Causes serious eye irritation
H332	Harmful if inhaled
H341	Suspected of causing genetic defects
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