

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

Product Name	Banguard 42 SC
Company/Undertaking Identification	Taminco N.V.
Address	Panterschipstraat 207 9000 GENT BELGIUM
Telephone	(+32) 9 254 14 11
Telefax	(+32) 9 254 14 10
Emergency Telephone Number	(+32) 9 254 10 36
Use of the Substance/Preparation	fungicide

2. HAZARDS IDENTIFICATION

Most Important Hazards

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

3. COMPOSITION/INFORMATION ON INGREDIENTS

Haz/Non-haz

Chemical Name	CAS-No	Weight %	EINECS	Classification
Thiram	137-26-8	36-40	205-286-2	Xn, Xi, N R20/22-36/38-43-48/22-50/53 Acute toxicity: Cat. 4; Acute toxicity: Cat. 4; STOT RE: Cat. 2; Eye irritation: Cat. 2; Skin irritation: Cat. 2; Skin sensitization: Cat. 1; Aquatic acute: Cat. 1; Aquatic chronic: Cat. 1; M-Factor: 10 H332, H302, H373, H319, H315, H317, H400, H410, EUH401

4. FIRST AID MEASURES

General Advice

- If symptoms persist, call a physician
- Show this safety data sheet to the doctor in attendance

Inhalation

- Remove from exposure, lie down
- Move to fresh air
- If breathing is difficult, give oxygen
- If not breathing, give artificial respiration
- Obtain medical attention

Eye Contact

- Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes
- If eye irritation persists, consult a specialist

Skin Contact

- Wash off immediately with soap and plenty of water removing all contaminated clothes and shoes
- If skin irritation persists, call a physician

Ingestion

- Drink plenty of water
- Do not induce vomiting without medical advice
- Treat symptomatically
- If swallowed, seek medical advice immediately and show this container or label

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

- carbon dioxide (CO₂)
- water spray
- dry chemical
- Alcohol-resistant foam

Extinguishing media which must not be used for safety reasons

- high volume water jet

Specific methods

- combustible material
- Cool containers / tanks with water spray
- Keep product and empty container away from heat and sources of ignition
- Do not flush into surface water or sanitary sewer system
- Prevent product from entering drains

Special protective equipment for fire-fighters

- In the event of fire, wear self contained breathing apparatus

Specific hazards

- Heating or fire can release toxic gas

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions

- Avoid contact with skin, eyes and clothing
- Evacuate personnel to safe areas
- Keep people away from and upwind of spill/leak

Environmental Precautions

- Remove immediately adhering matter
- Prevent product from entering drains
- Do not flush into surface water or sanitary sewer system

Methods for Clean-up

- Absorb spill with inert material (e.g. dry sand or earth), then place in a chemical waste container
- Do not flush with water

7. HANDLING AND STORAGE

Storage

- Technical measures/Precautions**
- In accordance with local and national regulations
 - Keep in a dry, cool place
 - Keep container tightly closed
 - Keep away from food and drink
- Incompatible products**
- Do not store near acids
- Specific use(s)**
- Dispose of as special waste in compliance with local and national regulations

Handling

- Technical measures/Precautions**
- In accordance with local and national regulations
 - Use only in area provided with appropriate exhaust ventilation
 - Use spark-proof tools and explosion-proof equipment
- Safe Handling Advice**
- Avoid contact with skin, eyes and clothing
 - Wear personal protective equipment

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Occupational exposure controls

- Engineering Controls**
- Local exhaust

Exposure limits

Chemical Name	GOEL	ACGIH TLV
Thiram	Not listed	TWA: 0.05 mg/m ³ Inhalable fraction and vapor.

Personal Protective Equipment

- Eye/face Protection**
- Tightly fitting safety goggles
 - Face-shield
- Hand Protection**
- Neoprene gloves
 - Choose body protection according to the amount and concentration of the dangerous substance at the work place
- Respiratory Protection**
- In case of insufficient ventilation, wear suitable respiratory equipment
 - self-contained breathing apparatus (EN 133)
 - (in case of higher concentration)
 - In accordance with local and national regulations
- Skin Protection**
- Wear suitable protective equipment
 - Choose body protection according to the amount and concentration of the dangerous substance at the work place
- Environmental exposure controls**
- Prevent product from entering drains
 - Do not contaminate surface water
 - Avoid subsoil penetration

9. PHYSICAL AND CHEMICAL PROPERTIES

General Information

Physical State	Liquid
Color	Off-white to Light brown
Odor	None

Important Health Safety and Environmental Information

Boiling Point/Range	No data available
Flash Point	none
Viscosity	1000 - 1800 mPas @ 20°C
Vapor Pressure	No data available
Relative density	No information available
pH	7.24(1 % solution) (w/v)
Water solubility	miscible with most organic solvents
Oxidizing Properties	no data available
Evaporation Rate	No information available
Melting Point/Range	Not applicable
Density	1.13 g/mL @ 20 °C
Autoignition Temperature	No data available

10. STABILITY AND REACTIVITY

Conditions to Avoid	<ul style="list-style-type: none">humid air and waterHeat
Materials to avoid	<ul style="list-style-type: none">Decomposes by reaction with strong acids
Hazardous Decomposition Products	<ul style="list-style-type: none">combustible materialBurning produces irritant fumesHeating or fire can release toxic gasCarbon oxidesnitrogen oxides (NOx)Sulphur oxides

11. TOXICOLOGICAL INFORMATION

Product Information

LD50/oral/rat =	>2000 - <5000 mg/kg
LD50/dermal/rat =	> 2000 mg/kg
LC50/inhalation/4h/rat =	Not relevant for the product itself
Eye irritation	No eye irritation
Skin irritation	Non-irritating to the skin
Sensitization	Causes sensitization
Target Organ Effects	Kidney, Liver
Mutagenic Effects	Did not show mutagenic effects in animal experiments
Reproductive toxicity	Did not show teratogenic effects in animal experiments
Carcinogenic effects	Did not show carcinogenic effects in animal experiments

11. TOXICOLOGICAL INFORMATION**Human experience**

Human experience	May cause cardiac arrhythmia headache eczema dermatitis nausea Shortness of breath More severe effects if alcohol is consumed
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12. ECOLOGICAL INFORMATION**Ecotoxicity**

Component Information	active ingredient
LC50	0.046 - 1.20mg/l
EC50/48h/daphnia =	0.011 mg/l
EC50/120h/algae =	0.24 mg/l
Toxicity to bacteria	- 3.11 mg/l

Mobility

Koc = 2245-24526

Persistence/Degradability

Degradation half life
after 2-7 days

Bioaccumulative Potential

minimum

13. DISPOSAL CONSIDERATIONS

Waste from Residues / Unused Products	<ul style="list-style-type: none">• Dispose of in accordance with local regulations• Waste codes should be assigned by the user based on the application for which the product was used• Classified as hazardous waste according to national equivalent of EC-Dir. 91/689; disposal of toxic and hazardous waste
Contaminated Packaging	<ul style="list-style-type: none">• Empty containers should be taken for local recycling, recovery or waste disposal

14. TRANSPORT INFORMATION**Road transport**

Class	9
UN-No	UN3082
Packing Group	III

14. TRANSPORT INFORMATION

Proper Shipping Name 3082 - Environmentally hazardous substance, liquid, n.o.s

Sea transport

Class 9
UN-No UN3082
Packing Group III
Proper Shipping Name 3082 - Environmentally hazardous substance, liquid, n.o.s

Air transport

Class 9
UN-No UN3082
Packing Group III
Proper Shipping Name 3082 - Environmentally hazardous substance, liquid, n.o.s

15. REGULATORY INFORMATION

Symbol(s)

- Xn - Harmful.
- N - Dangerous for the environment.



R -phrase(s)

- R20/22 - Harmful by inhalation and if swallowed
- R43 - May cause sensitization 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 -phrase(s)

- S 2 - Keep out of the reach of children.
- S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
- S36/37 - Wear suitable protective clothing and gloves
- S60 - This material and its container must be disposed of as hazardous waste.
- S61 - Avoid release to the environment. Refer to special instructions/safety data sheets.

International Inventories

Chemical Name
Thiram

TSCA	EINECS	DSL	ENCS	AICS
x	205-286-2	x	X	Listed.

16. OTHER INFORMATION

16. OTHER INFORMATION

Text of R phrases mentioned in Section 3

R20/22 - Harmful by inhalation and if swallowed

R48/22 - Harmful: danger of serious damage to health by prolonged exposure if swallowed

R36/38 - Irritating to eyes and skin

R43 - May cause sensitization by skin contact.

R50/53 - Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment

H332 - Harmful if inhaled

H302 - Harmful if swallowed

H373 - May cause damage to organs through prolonged or repeated exposure

H319 - Causes serious eye irritation

H315 - Causes skin irritation

H317 - May cause an allergic skin reaction

H400 - Very toxic to aquatic life

H410 - Very toxic to aquatic life with long lasting effects

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

Literary Reference

-Taminco Proprietary Studies