



SAFETY DATA SHEET

Shavit 25 EC

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Section 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

Product identifier

Shavit 25 EC

Synonyms

Triadimenol 250 EC

Pure substance/mixture

Mixture

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

Recommended Use

Fungicide

Uses advised against

No information available

Details of the supplier of the safety data sheet

Supplier Address

ADAMA SOUTH AFRICA (PTY) LTD
Ground Floor, Simeka House
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Section 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

| | |
|--|----------------------|
| Acute toxicity - Oral | Category 4 - (H302) |
| Serious eye damage/eye irritation | Category 1 - (H318) |
| Reproductive toxicity | Category 1B - (H360) |
| Specific target organ toxicity (single exposure) | Category 3 - (H335) |
| Acute aquatic toxicity | Category 2 - (H401) |

Label Elements

Hazard pictograms

**Signal word**

Danger

Hazard Statements

H302 - Harmful if swallowed
 H318 - Causes serious eye damage
 H335 - May cause respiratory irritation
 H360 - May damage fertility or the unborn child
 H401 - Toxic to aquatic life

Precautionary Statements

P102 - Keep out of reach of children
 P201 - Obtain special instructions before use
 P261 - Avoid breathing dust/fume/gas/mist/vapors/spray
 P270 - Do not eat, drink or smoke when using this product
 P280 - Wear protective gloves/protective clothing/eye protection/face protection
 P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
 P501 - Dispose of contents/ container to an approved waste disposal plant

Other Hazards

No information available

Section 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

| Chemical Name | Weight-% | CAS No | EC No | GHS Classification | M-Factor |
|------------------------|----------|------------|-----------|--|----------|
| Triadimenol | 21 - 25 | 55219-65-3 | 259-537-6 | Acute Tox. 4 (H302) Repr. 1B (H360) Lact (H362) Aquatic Chronic 2 (H411) | |
| N-Methyl-2-pyrrolidone | 41 - 45 | 872-50-4 | 212-828-1 | Skin Irrit. 2 (H315) Eye Irrit. 2 (H319) Repr. 1B (H360) STOT SE 3 (H335) | |
| Rosin | 15 - 19 | 8050-09-7 | 232-475-7 | Skin Sens. 1 (H317) | |

Section 4: FIRST AID MEASURES

First aid measures**General advice**

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible). First aider: Pay attention to self-protection!.

Inhalation

Remove to fresh air. If breathing is irregular or stopped, administer artificial respiration. Call a physician.

Skin Contact

Wash off immediately with soap and plenty of water while removing all contaminated clothes and shoes. Consult a physician if necessary.

Eye contact

Immediately flush with plenty of water. After initial flushing, remove any contact lenses and

continue flushing for at least 15 minutes. Keep eye wide open while rinsing. If symptoms persist, call a physician.

Ingestion Rinse mouth. Drink plenty of water. If symptoms persist, call a physician.

Self-protection of the first aider Use personal protective equipment as required.

Most important symptoms and effects, both acute and delayed

Symptoms None known.

Indication of any immediate medical attention and special treatment needed

Note to physicians Treat symptomatically.

Section 5: FIRE-FIGHTING MEASURES

Extinguishing media

Suitable Extinguishing Media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable Extinguishing Media

No information available.

Special hazards arising from the substance or mixture

No specific hazard known.

Advice for firefighters

In the event of fire, wear self-contained breathing apparatus
In the event of fire and/or explosion do not breathe fumes.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions

Use personal protective equipment as required. Keep people away from and upwind of spill/leak. Evacuate personnel to safe areas.

For emergency responders

Use personal protection recommended in Section 8.

Environmental precautions

Prevent further leakage or spillage if safe to do so. Prevent product from entering drains. Do not flush into surface water or sanitary sewer system.

Methods and material for containment and cleaning up

Methods for cleaning up

Take up mechanically, placing in appropriate containers for disposal.

Reference to other sections

Other Information

See also section 8,13

Section 7: HANDLING AND STORAGE

Precautions for safe handling

Advice on safe handling

Avoid contact with skin, eyes or clothing. Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Use personal protective equipment as required. Do not breathe dust/fume/gas/mist/vapors/spray.

General Hygiene Considerations

When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

Conditions for safe storage, including any incompatibilities

Storage Conditions

Keep container tightly closed in a dry and well-ventilated place. Keep out of the reach of children. Keep containers tightly closed in a cool, well-ventilated place.

Specific end use(s)

Risk Management Methods (RMM)

The information required is contained in this Material Safety Data Sheet.

Section 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

National occupational exposure limits

| Chemical Name | European Union | United Kingdom | France | Spain | Germany |
|------------------------------------|--|---|--|--|---|
| N-Methyl-2-pyrrolidone 872-50-4 | | STEL: 75 ppm STEL: 309 mg/m ³ TWA: 10 ppm TWA: 40 mg/m ³ Skin | TWA: 40 mg/m ³ TWA: 10 ppm STEL: 80 mg/m ³ STEL: 20 ppm | S* STEL: 20 ppm STEL: 80 mg/m ³ TWA: 10 ppm TWA: 40 mg/m ³ | TWA: 20 ppm TWA: 82 mg/m ³ Ceiling / Peak: 40 ppm Ceiling / Peak: 164 mg/m ³ Skin |
| Rosin 8050-09-7 | | TWA: 0.05 mg/m ³ | TWA: 0.1 mg/m ³ | | |
| Chemical Name | Italy | Portugal | Netherlands | Finland | Denmark |
| N-Methyl-2-pyrrolidone 872-50-4 | | | Skin STEL: 80 mg/m ³ TWA: 40 mg/m ³ | TWA: 10 ppm TWA: 40 mg/m ³ STEL: 20 ppm STEL: 80 mg/m ³ Skin | TWA: 5 ppm TWA: 20 mg/m ³ Skin |
| Chemical Name | Austria | Switzerland | Poland | Norway | Ireland |
| N-Methyl-2-pyrrolidone 872-50-4 | Skin STEL 20 ppm STEL 80 mg/m ³ TWA: 10 ppm TWA: 40 mg/m ³ | Skin STEL: 40 ppm STEL: 160 mg/m ³ TWA: 20 ppm TWA: 80 mg/m ³ | STEL: 80 mg/m ³ TWA: 40 mg/m ³ Skin | TWA: 5 ppm TWA: 20 mg/m ³ Skin STEL: 20 ppm STEL: 80 mg/m ³ | TWA: 25 ppm TWA: 101 mg/m ³ Skin |
| Rosin 8050-09-7 | | | | | TWA: 0.05 mg/m ³ STEL: 0.15 mg/m ³ |

Exposure controls

Engineering Controls

Ensure adequate ventilation, especially in confined areas.

Personal protective equipment

Eye/face protection

Tight sealing safety goggles.

Hand Protection

Suitable chemical resistant gloves (EN 374) also with prolonged, direct contact (recommendation: protection index 6, corresponding > 480 minutes Permeability time)

(permeation) according to EN 374): e.g. nitrile rubber (0.4 mm), chloroprene rubber (0.5 mm), butyl rubber (0.7 mm).

Body Protection Suitable protective clothing, Gloves made of plastic or rubber.

Respiratory protection Use only with adequate ventilation.

General Hygiene Considerations When using do not eat, drink or smoke. Regular cleaning of equipment, work area and clothing is recommended. Avoid contact with skin, eyes or clothing. Wash hands thoroughly after handling. Keep away from food, drink and animal feeding stuffs.

Environmental exposure controls No information available.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Physical and Chemical Properties

| <u>Property</u> | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|--|----------------------------|----------------------|-------------------------------------|
| Appearance | | | |
| Physical state | : liquid | | |
| Color | : No information available | | |
| Odor | : No information available | | |
| Odor threshold | : No data available | | |
| pH | : 6 - 7 | CIPAC MT 75.2 | |
| Melting point/freezing point °C | : No data available | | |
| Boiling point/boiling range °C | : No data available | | |
| Flash point °C | : 113 | 92/69/EEC A.9 | |
| Evaporation rate | : Not Applicable | | |
| Flammability (solid, gas) | : Not Applicable | | |
| Upper/lower flammability or explosive limits | : No data available | | |
| Vapor pressure kPa | : No data available | | |
| Vapor density | : No data available | | |
| Relative density | : No data available | | |
| Solubility(ies) mg/l | : No data available | | |
| Partition Coefficient (n-octanol/water) Log Pow | : | | See Section 12 for more information |
| Autoignition temperature °C | : No data available | | |
| Decomposition temperature °C | : No data available | | |
| Kinematic viscosity mm²/s 40 °C | : 62 | OECD 114 EEC A.14 | |
| Explosive properties | : Not an explosive | | |
| Oxidizing properties | : No data available | | |
| Other Information | | | |
| Bulk density g/ml | : | | |
| Surface tension mN/m | : Not Applicable | | |

Section 10: STABILITY AND REACTIVITY

Reactivity

Not available.

Chemical stability

Stable under normal conditions.

Possibility of Hazardous Reactions

None under normal processing.

Conditions to avoid

Heat, flames and sparks.

Incompatible Materials

No information available

Hazardous Decomposition Products

None under normal use conditions.

Section 11: TOXICOLOGY INFORMATION

Information on toxicological effects

Acute toxicity

| | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|-----------------------------------|------------------------------|----------------|---------------|----------------|
| Oral LD50 mg/kg | : 1483 | Rat | | |
| Dermal LD50 mg/kg | : >2000 | Rat | | |
| Inhalation LC50 mg/l/4h | : >5.3 | Rat | | |
| Skin corrosion/irritation | : Non-irritating to the skin | Rabbit | | |
| Serious eye damage/eye irritation | : Irritating to eyes | Rabbit | | |
| Respiratory/skin sensitization | : Not a skin sensitizer | Guinea pig | | |

Chronic toxicity

Germ cell mutagenicity

Chemical Name
Triadimenol : Not classified

Carcinogenicity

Chemical Name
Triadimenol : Not Carcinogenic

Reproductive toxicity

Chemical Name
Triadimenol : May damage fertility or the unborn child

STOT - single exposure

Chemical Name
Triadimenol : No data available

STOT - repeated exposure

Chemical Name
Triadimenol : No data available

Aspiration hazard

Chemical Name
Triadimenol : No data available

Section 12: ECOLOGICAL INFORMATION

Toxicity

Aquatic toxicity

| | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|--|---------------|----------------|---------------|----------------|
| Acute toxicity Fish 96-hour LC50 mg/l | : 3.47 | Rainbow trout | | |

| | | | | |
|-----------------------------|---|-----|---------------|-------------------|
| Crustacea 48-hour EC50 mg/l | : | 8.5 | Daphnia magna | |
| Algae 72-hour EC50 mg/l | : | 10 | | |
| Other plants EC50 mg/l | : | | | No data available |

| | <u>Values</u> | <u>Species</u> | <u>Method</u> | <u>Remarks</u> |
|--------------------------|---------------|-------------------|---------------|----------------|
| Chronic aquatic toxicity | | | | |
| Fish NOEC mg/l | : | No data available | | |
| Crustacea NOEC mg/l | : | No data available | | |
| Algae NOEC mg/l | : | No data available | | |
| Other plants NOEC mg/l | : | No data available | | |

Terrestrial Toxicity

| | | | | |
|------------------------------|---|-------|----------------|--|
| Birds Oral LD50 mg/kg | | | | |
| Chemical Name | | | | |
| Triadimenol | : | >2000 | Bobwhite quail | |

| | | | | |
|------------------------------|---|--------|--|--|
| Bees Oral LD50 µg/bee | | | | |
| Chemical Name | | | | |
| Triadimenol | : | >224.8 | | |

Persistence and degradability

| Abiotic Degradation | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|----------------------------|---------------|---------------|----------------|
| Water DT50 days | | | |
| Chemical Name | | | |
| Triadimenol | : | 353 | 22 °C |

| | | | |
|-----------------------|---|-------|--|
| Soil DT50 days | | | |
| Chemical Name | | | |
| Triadimenol | : | 127.6 | |

| | | | |
|-----------------------|---|-------------------|--|
| Biodegradation | | | |
| Chemical Name | | | |
| Triadimenol | : | No data available | |

Bioaccumulative potential

| Partition Coefficient (n-octanol/water) Partition Coefficient (n-octanol/water) Log Pow | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|--|---------------|---------------|----------------|
| Chemical Name | | | |
| Triadimenol | : | 3.08 - 3.28 | 25 °C |

| | | | |
|--------------------------------------|---|----|--|
| Bioconcentration factor (BCF) | | | |
| Chemical Name | | | |
| Triadimenol | : | 21 | |

Mobility in soil

| Adsorption/Desorption | <u>Values</u> | <u>Method</u> | <u>Remarks</u> |
|------------------------------|---------------|---------------|----------------|
| Chemical Name | | | |
| Triadimenol | : | 14 - 702 | Koc |

Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for classification as PBT or vPvB

Other adverse effects

No information available.

Section 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

| | |
|--|---|
| Waste from residues/unused products | Disposal should be in accordance with applicable regional, national and local laws and regulations. |
| Contaminated packaging | Improper disposal or reuse of this container may be dangerous and illegal. |
| Other Information | Waste codes should be assigned by the user based on the application for which the product was used. |

Section 14: TRANSPORTATION INFORMATION

IMDG/IMO

| | |
|-------------------------------------|---|
| UN/ID No * | 3082 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triadimenol) |
| Hazard Class | 9 |
| Packing Group | III |
| Marine pollutant | Yes |
| Special precautions for user | |

RID/ADR

| | |
|-------------------------------------|---|
| UN/ID No * | 3082 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triadimenol) |
| Hazard Class | 9 |
| Packing Group | III |
| Environmental hazard | Yes |
| Special precautions for user | |

ICAO/IATA

| | |
|---|---|
| UN/ID No * | 3082 |
| Proper shipping name | ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Triadimenol) |
| Hazard Class | 9 |
| Packing Group | III |
| Environmental hazard | Yes |
| Special precautions for user | |
| Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code | Not Applicable |



* Note: UN3077 & UN3082 – These products may be transported as non-dangerous goods under the special provisions of IMDG Code 2.10.2.7; ADR SP375 and ICAO/IATA A197 when packed in single or inner packaging of up to 5L for liquids or 5 kg or less for solids.

Section 15: REGULATORY INFORMATION

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

Section 16: OTHER INFORMATION

Full text of H-Statements referred to under sections 2 and 3

H302 - Harmful if swallowed
H412 - Harmful to aquatic life with long lasting effects
H317 - May cause an allergic skin reaction
H315 - Causes skin irritation
H319 - Causes serious eye irritation
H360D - May damage the unborn child
H335 - May cause respiratory irritation

Revision Note

Changes made to the last version are labeled with this sign ***.

List of Acronyms

ADR - European Agreement concerning the International Carriage of Dangerous Goods by Road
ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways
CAS Number - Chemical Abstracts Service number
EC Number - EINECS and ELINCS Number
EINECS - European Inventory of Existing Commercial Substances
ELINCS - European List of notified Chemical Substances
IATA - International Air Transport Association
ICAO-TI - Technical Instructions for the Safe Transport of Dangerous Goods by Air
IMDG - International Maritime Dangerous Goods
LC50 - Lethal Concentration to 50 % of a test population
LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose)
OECD - Organization for Economic Co-operation and Development
PBT - Persistent, Bioaccumulative and Toxic substance
RID - Regulations concerning the International Carriage of Dangerous Goods by Rail
STOT - Specific Target Organ Toxicity
vPvB - Very Persistent and Very Bioaccumulative

Disclaimer

The information provided in this Material Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet