Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016 Replaces Version of: 28th January 2013

Page 1/7

Vita (Europe) Limited

Basingstoke, U.K.

Trade Name: APIGUARD ®

1. Identification of the Product and of the Company.

1.1 Product name:

Apiguard [®] Acaricide – aqueous gel

1.2 Company name:

VITA (EUROPE) LIMITED

BASINGSTOKE, HAMPSHIRE, UNITED KINGDOM

Telephone: +44 1256 473175 Telefax: +44 1256 473179

1.3 Emergency Telephone Numbers: 44 (0) 467 815370 44 (0) 1256 473177

2. Composition / Information on Ingredients

2.1 Chemical characterisation of the preparation:

Chemical Class: Phenol

Formulation Type: Aqueous gel Sector: ACARICIDE

Active Ingredient (s): 25% (w/w) THYMOL (2-Isopropyl-5-methylphenol)

2.2 Hazardous Component (s):

Contains: THYMOL (2-Isopropyl-5-methylphenol)

Empirical Formula: C₁₀H₁₄O

Molecular Weight: 150.2

Content: 25% (w/w)

CAS-Reg. No.: 89-83-8

EC-No.: 2019448

EC-label: R22 Harmful if swallowed.

R34 Causes burns.

In cases of contact with eyes, rinse immediately

with plenty of water and seek medical advice.

S28 After contact with skin, wash immediately with

plenty of soap-suds.

S36/37/39 Wear suitable protective clothing, gloves and

eye/face protection.

Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016



Replaces Version of: 28th January 2013

Page 2 / 7

Trade Name: APIGUARD ®

3. Hazards Identification

3.1 Potential Health Hazards:

The active ingredient THYMOL resembles phenol in its systemic actions but it is less toxic.

3.2 Eyes:

Irritation of eyes with redness and pain.

3.3 Skin:

Irritation of skin with redness and pain.

3.4 Inhalation:

May cause severe and permanent damage to the digestive tract. Causes gastrointestinal irritation with nausea, vomiting and diarrhoea. Irritation of respiratory tract.

3.5 Ingestion:

Abdominal pain with possible nausea, vomiting and occasional convulsions. Oils and alcohol may promote absorption into the body.

3.6 Chronic Exposure:

No data found.

4. First Aid Measures

4.1 Eyes:

Flush eyes thoroughly with running water (for at least 15 minutes) lifting upper and lower lids occasionally. Seek medical advice if irritation persist.

4.2 Skin:

Rinse the skin immediately with copious amounts of water. Immediately remove contaminated clothing. Seek medical advice if symptoms develop.

4.3 Inhalation:

In cases of excessive inhalation of vapour and/or gases, remove the casualty into fresh air. If nausea persists or symptoms of poisoning are apparent, seek medical attention.

4.4 Ingestion:

Clean mouth with water and give large amounts of water (although not to unconscious). Do not induce vomiting.

Symptoms of poisoning may occur during at least 48 hours following ingestion; therefore, medical advice must be sought.

Symptoms include irritation of gastric mucosa, abdominal pain, nausea, vomiting, shortness of breath and circulatory collapse.

Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016



Replaces Version of: 28th January 2013

Page 3 / 7

Trade Name: APIGUARD ®

4.5 Chronic Exposure:

No data found:

4.6 Note to Physician:

No specific antidote, treat symptomatically.

5. Fire Fighting Measures

5.1 Extinguishing media:

Suitable agents: alcohol-resistant foam, carbon dioxide dry powder.

Not to be used: full water jet.

5.2 Special protective equipment for fire fighters:

Wear self-contained breathing apparatus.

6. Accidental Release Measures

Use personal protective clothing. Do not contaminate waters or sewers. Collect the product in containers for safe disposal. Collect material in specially marked, tightly closing containers. Spilled product cannot be used further and must be disposed of. If safe disposal is not possible, contact the manufacturer, supplier or the local representative.

7. Handling and Storage

7.1 Handling:

Wash after handling. Avoid contact with the eyes, skin and clothing. Avoid digestion and inhalation.

7.2 Storage:

Store in a cool, dry place.

Maximum storage temperature: 30°C.

Shelf life in original, sealed containers in a temperate climate is:

- 36 months minimum for the 50g aluminium foil container (tray)
- 36 months minimum for the 3kg polypropylene container (tub)
- 36 months minimum for the 25g aluminium foil sachet (sachet)

Store in undamaged, properly sealed, original containers protected from light by secondary packaging.

Do not open until ready to use.

Keep away from incompatible materials.

Observe all warnings and precautions for the product.

Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016 Replaces Version of: 28th January 2013



Page 4/7

Trade Name: APIGUARD ®

8. Exposure Controls and Personal Protection

8.1 Occupational Toxicity Risk:

Low, when used as directed.

8.2 Engineering Controls:

Facilities storing or utilising this material should be equipped with eyewash facility and a safety shower. Use adequate ventilation.

8.3 Industrial Hygiene:

Keep away from food, drink and animal feedstuffs.

When using do not eat, drink or smoke.

Change contaminated clothes immediately.

After work and before taking breaks, wash your hands.

8.3 Personal protective equipment:

Respiratory protection: Not required if the product is handled in the open or

properly ventilated in-door places, otherwise respiratory protection is recommended.

Eye protection: chemical safety goggles or glasses

Hand protection: gloves

Others: working clothes

9. Physical and Chemical Properties

9.1 Form: aqueous granular gel

(a solid suspended in a liquid)

9.2 Colour: slightly opalescent, colourless to pale pink

9.3 Odour: characteristic, strong aromatic, thyme-like

9.4 Change in physical state:

Melting point: 49.5°C for THYMOL (100%) Boiling point: 233°C for THYMOL (100%)

9.5 Flash point: $> 100^{\circ}$ C

9.6 Ignition temperature: not applicable

9.7 Explosion limits: not applicable

9.8 Density (Specific Gravity): $1.005 - 1.025 \text{ g/cm}^3$ at 20°C

Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016



Replaces Version of: 28th January 2013

Page	5	/	7	

Trade	Name: APIGUARD ®		1 4,500 / /
9.9	Vapour pressure:	$2.25 \times 10^3 \text{Pa}$	at 20°C
9.10	Viscosity:	95,000 – 125,000 cps	at 25°C
9.11	pH value (1% aqueous suspension):	7.0 - 8.0	at 20°C
9.12	Solubility in / Miscibility with water:	77% (w/w)	at 20°C
9.13	Partition coefficient n-octanol/water: Log p O/W: Method: calculated	3.30 Test result for THYMOL (1	at 20°C 100%)

10. Stability and Reactivity

10.1 Stability:

Stable, but avoid any application of heat to the product.

10.2 Reactivity:

Non-reactive.

11. Toxicological information

11.1 Acute Oral Toxicity LD₅₀: > 2000 mg/kg (rat)

11.2 Acute Dermal Toxicity LD₅₀: > 2000 mg/kg (rat)

11.3 Irritation:

Skin: irritant (rabbit)
Eyes: irritant (rabbit)

11.4 Sensitisation

Skin: none (guinea pig)

12. Ecological Information

12.1 Data on elimination (persistence and degradability):

Information on the active ingredient THYMOL:

The product is readily biodegradable to OECD criteria.

12.2 Fish toxicity:

Values for the active ingredient THYMOL (100%):

LC₀ (96 hours): 4.2 mg/l

LC₅₀ (96 hours): 5.0 mg/l (approximately)

(Brachydanio rerio)

Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016



Replaces Version of: 28th January 2013

Page 6 / 7

Trade Name: APIGUARD ®

12.3 Daphnia toxicity:

Values for the active ingredient THYMOL (100%):

LC₅₀ (48 hours): 3.2 mg/l

(water flea, Daphnia magna))

12.4 Bacterial toxicity (growth inhibition):

Values for the active ingredient THYMOL (100%):

 EC_{50} : 40mg/l

Method: OECD 209 / ISO 8192

Activated sludge

12.5 Behaviour in sewage plant:

Information on the active ingredient THYMOL:

When low concentrations are discharged correctly into adapted biological sewage treatment plants, interference with the degradation activity of activated sludge is not likely.

12.6 Further information:

Comment regarding the active ingredient THYMOL:

Do not discharge the product unmonitored into the environment.

13. Disposal Considerations

The product must be disposed of according to the applicable local regulations in force, if no recycling is possible. Packaging that cannot be cleaned should be disposed of as for the product.

14. Transportation Information

RID/GGVE: not classified as dangerous goods for transportation ADR/GGVS: not classified as dangerous goods for transportation IMDG/GGVSea: not classified as dangerous goods for transportation

15. Regulatory Information

Assessment by Vita (Europe) Limited in accordance with EC directives and UK legislation on dangerous substances:

R36/38 Irritating to eyes and skin.

S2 Keep out of the reach of children.

Keep away from food, drink, and animal feedstuffs.

Corresponding to EC Directive 93/112/EC

Date Issued: 16th February 2016



Replaces Version of: 28th January 2013

	Page	7	/	7	
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Trade Name:	APIGUARD ®
526	
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28	After contact with skin, wash immediately with plenty of soap-suds.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.

16. Other Information

Product should be stored, handled and used in accordance with good industrial hygiene practices and in conformity with legal regulations.

The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should, therefore, not be construed as a warranty with regard to the product specific properties.

® Apiguard is a registered trademark of Vita (Europe) Limited, Basingstoke, Hampshire, UK.