SAFETY DATA SHEET
Dethlac Insecticidal Lacquer

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

1.1. Product identifier

Product name Dethlac Insecticidal Lacquer

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

Identified uses Insecticide

1.3. Details of the supplier of the safety data sheet

Supplier

Gerhardt Pharmaceuticals Ltd
PO Box 777
London
SW19 5DY
UK

02089440505

1.4. Emergency telephone number

Emergency telephone 020 8944 0505 (Gerhardt Pharmaceuticals Ltd)

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification

Physical hazards Aerosol 1 - H222, H229

Health hazards Eye Irrit. 2 - H319 STOT SE 3 - H336

Environmental hazards Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410

Classification (67/548/EEC or 1999/45/EC) Xi;R36. F+;R12. N;R50/53.

2.2. Label elements

Pictogram

Signal word Danger

Hazard statements

H222 Extremely flammable aerosol.
H229 Pressurised container: may burst if heated
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
H410 Very toxic to aquatic life with long lasting effects.

Precautionary statements	P102 Keep out of reach of children. P260 Do not breathe spray. P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. P211 Do not spray on an open flame or other ignition source. P251 Do not pierce or burn, even after use. P273 Avoid release to the environment. P410+P412 Protect from sunlight. Do not expose to temperatures exceeding 50°C/122°F. P337+P313 If eye irritation persists: Get medical advice/attention. P305 IF IN EYES: P351 Rinse cautiously with water for several minutes.
Contains	PROPAN-2-OL

2.3. Other hazards

This substance is not classified as PBT or vPvB according to current EU criteria.

SECTION 3: Composition/information on ingredients

3.2. Mixtures

PROPAN-2-OL **30-60%**

CAS number: 67-63-0 EC number: 200-661-7

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319 STOT SE 3 - H336	F;R11 Xi;R36 R67

ETHANOL **10-30%**

CAS number: 64-17-5 EC number: 200-578-6

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 2 - H225 Eye Irrit. 2 - H319	F;R11

Distillates (petroleum), hydrotreated light **1-5%**

CAS number: 64742-47-8 EC number: 265-149-8

Classification	Classification (67/548/EEC or 1999/45/EC)
Asp. Tox. 1 - H304	Xn;R65. R66.

2-METHOXY-1-METHYLETHYL ACETATE **<1%**

CAS number: 108-65-6 EC number: 203-603-9

Classification	Classification (67/548/EEC or 1999/45/EC)
Flam. Liq. 3 - H226	R10

Pyrethrins and Pyrethroids		**<1%**
CAS number: 8003-34-7	EC number: 232-319-8	
M factor (Acute) = 10	M factor (Chronic) = 10	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Acute Tox. 4 - H302 Acute Tox. 4 - H312 Acute Tox. 4 - H332 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Xn;R20/21/22. N;R50/53.

DELTAMETHRIN TG		**<1%**
CAS number: 52918-63-5	EC number: 258-256-6	
M factor (Acute) = 1000000	M factor (Chronic) = 10000	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Acute Tox. 3 - H301 Acute Tox. 3 - H331 Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	T;R23,R25. N;R50/53.

Butylated Hydroxytoluene (BHT)		**<1%**
CAS number: 128-37-0	EC number: 204-881-4	
M factor (Acute) = 1	M factor (Chronic) = 1	

Classification	**Classification (67/548/EEC or 1999/45/EC)**
Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	N;R50/53.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

Composition comments Deltamethrin 0.02% and Pyrethrins 0.08%

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation Move affected person to fresh air and keep warm and at rest in a position comfortable for breathing. Get medical attention if any discomfort continues.

Ingestion Rinse mouth thoroughly with water. Consult a physician for specific advice. Do not induce vomiting.

Skin contact Wash skin thoroughly with soap and water.

Eye contact Rinse immediately with plenty of water. Remove any contact lenses and open eyelids wide apart. Continue to rinse for at least 15 minutes. Get medical attention if any discomfort continues.

4.2. Most important symptoms and effects, both acute and delayed

Inhalation Irritation of nose, throat and airway.

Ingestion May cause discomfort if swallowed.

Skin contact Prolonged skin contact may cause redness and irritation.

Eye contact Irritating to eyes. Symptoms following overexposure may include the following: Redness. Pain.

4.3. Indication of any immediate medical attention and special treatment needed

Notes for the doctor No specific recommendations. If in doubt, get medical attention promptly.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

Unsuitable extinguishing media Do not use water jet as an extinguisher, as this will spread the fire.

5.2. Special hazards arising from the substance or mixture

Specific hazards Extremely flammable. Containers can burst violently or explode when heated, due to excessive pressure build-up.

Hazardous combustion products No known hazardous decomposition products.

5.3. Advice for firefighters

Protective actions during firefighting No specific firefighting precautions known.

Special protective equipment for firefighters Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions Wear protective clothing as described in Section 8 of this safety data sheet.

6.2. Environmental precautions

Environmental precautions Avoid the spillage or runoff entering drains, sewers or watercourses.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up Absorb spillage with sand or other inert absorbent. Collect and place in suitable waste disposal containers and seal securely. For waste disposal, see Section 13.

6.4. Reference to other sections

Reference to other sections Wear protective clothing as described in Section 8 of this safety data sheet.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Usage precautions Read and follow manufacturer's recommendations. Avoid contact with eyes. Eliminate all sources of ignition. Good personal hygiene procedures should be implemented.

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions Store in tightly-closed, original container in a dry, cool and well-ventilated place. Aerosol cans: Must not be exposed to direct sunlight or temperatures above 50°C. Keep away from heat, sparks and open flame.

7.3. Specific end use(s)

Specific end use(s) The identified uses for this product are detailed in Section 1.2.

SECTION 8: Exposure Controls/personal protection

8.1. Control parameters

Occupational exposure limits

PROPAN-2-OL

Long-term exposure limit (8-hour TWA): WEL 400 ppm 999 mg/m³
Short-term exposure limit (15-minute): WEL 500 ppm 1250 mg/m³

ETHANOL

Long-term exposure limit (8-hour TWA): WEL 1000 ppm 1920 mg/m³
Short-term exposure limit (15-minute): WEL

2-METHOXY-1-METHYLETHYL ACETATE

Long-term exposure limit (8-hour TWA): WEL 50 ppm 274 mg/m³
Short-term exposure limit (15-minute): WEL 100 ppm 548 mg/m³
Sk

Pyrethrins and Pyrethroids

Long-term exposure limit (8-hour TWA): WEL 1 mg/m³
Short-term exposure limit (15-minute): WEL

DELTAMETHRIN TG

Short-term exposure limit (15-minute): OES 0.02 mg/m³

Butylated Hydroxytoluene (BHT)

Long-term exposure limit (8-hour TWA): WEL 10 mg/m³
Short-term exposure limit (15-minute): WEL
WEL = Workplace Exposure Limit

Sk = Can be absorbed through skin.

8.2. Exposure controls

Appropriate engineering controls	Provide adequate ventilation.
Eye/face protection	Not relevant.
Hand protection	No specific hand protection recommended. Chemical-resistant, impervious gloves complying with an approved standard should be worn if a risk assessment indicates skin contact is possible. Gloves are recommended for prolonged use.
Hygiene measures	No specific hygiene procedures recommended but good personal hygiene practices should always be observed when working with chemical products. When using do not eat, drink or smoke.
Respiratory protection	If ventilation is inadequate, suitable respiratory protection must be worn.

SECTION 9: Physical and Chemical Properties

9.1. Information on basic physical and chemical properties

Appearance	Aerosol.
Flash point	< 0°C

9.2. Other information

Other information	No information required.

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity	There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability	Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions	Not applicable.

10.4. Conditions to avoid

Conditions to avoid	Avoid exposure to high temperatures or direct sunlight.

10.5. Incompatible materials

Materials to avoid	No specific material or group of materials is likely to react with the product to produce a hazardous situation.

10.6. Hazardous decomposition products

Hazardous decomposition products	Does not decompose when used and stored as recommended.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Serious eye damage/irritation

Serious eye damage/irritation	Moderately irritating.

Toxicological information on ingredients.

Pyrethrins and Pyrethroids

Germ cell mutagenicity

Genotoxicity - in vivo	This substance has no evidence of mutagenic properties.

Reproductive toxicity

Reproductive toxicity - development	Does not contain any substances known to be toxic to reproduction.

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Acute toxicity - oral

Acute toxicity oral (LD_{50} mg/kg)	87.0
Species	Mouse
ATE oral (mg/kg)	87.0

Acute toxicity - dermal

Notes (dermal LD_{50})	LD_{50} >2000 mg/kg, Dermal, Rat

Acute toxicity - inhalation

Acute toxicity inhalation (LC_{50} dust/mist mg/l)	0.6
Species	Rat
ATE inhalation (dusts/mists mg/l)	0.6

Skin corrosion/irritation

Animal data	Not irritating.

Serious eye damage/irritation

Serious eye damage/irritation	Not irritating.

Skin sensitisation

Skin sensitisation	Not sensitising.

Germ cell mutagenicity

Genotoxicity - in vitro	: Negative. This substance has no evidence of mutagenic properties.

Carcinogenicity

Carcinogenicity	There is no evidence that the product can cause cancer.

Reproductive toxicity

Reproductive toxicity - development	This substance has no evidence of toxicity to reproduction.

Aspiration hazard

Aspiration hazard	Not applicable.

Inhalation	Harmful by inhalation. Gas or vapour in high concentrations may irritate the respiratory system. Symptoms following overexposure may include the following: Coughing.
Ingestion	Toxic if swallowed.
Skin contact	Not a skin sensitiser.
Eye contact	No specific health hazards known.
Acute and chronic health hazards	Contact with this chemical can be hazardous.

SECTION 12: Ecological Information

Ecotoxicity The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

Ecological information on ingredients.

Pyrethrins and Pyrethroids

Ecotoxicity	Dangerous for the environment. May cause long-term adverse effects in the aquatic environment.

12.1. Toxicity

Toxicity Very toxic to aquatic organisms.

Ecological information on ingredients.

Pyrethrins and Pyrethroids

Acute aquatic toxicity

LE(C)$_{50}$	0.01 < L(E)C50 ≤ 0.1
M factor (Acute)	10

Chronic aquatic toxicity

M factor (Chronic)	10

DELTAMETHRIN TG

Acute aquatic toxicity

LE(C)$_{50}$	0.0000001 < L(E)C50 ≤ 0.000001
M factor (Acute)	1000000
Acute toxicity - fish	LC50, 96 hours, 96 hours: 0.00026 mg/l, Onchorhynchus mykiss (Rainbow trout)

Acute toxicity - aquatic invertebrates	EC_{50}, 96 hours, 96 hours: 0.0000003 mg/l, Freshwater invertebrates Gammarus fasciatus
Acute toxicity - aquatic plants	EC_{50}, 96 hours, 96 hours: > 0.47 mg/l, Freshwater algae Chlorella vulgaris
Chronic aquatic toxicity	
NOEC	0.000001 < NOEC ≤ 0.00001
Degradability	Non-rapidly degradable
M factor (Chronic)	10000
Chronic toxicity - fish early life stage	NOEC, : 0.000017 mg/l, Pimephales promelas (Fat-head Minnow) 260 days
Chronic toxicity - aquatic invertebrates	NOEC, 21 days, 21 days: 0.0000041 mg/l, Daphnia magna

12.2. Persistence and degradability

Ecological information on ingredients.

Pyrethrins and Pyrethroids

Phototransformation	Not considered to be persistent in the atmosphere.

DELTAMETHRIN TG

Persistence and degradability	The product is not readily biodegradable.

12.3. Bioaccumulative potential

Ecological information on ingredients.

Pyrethrins and Pyrethroids

Bioaccumulative potential	The product is not bioaccumulating.

DELTAMETHRIN TG

Bioaccumulative potential	The product is not bioaccumulating. BCF: 1400, Lepomis macrochirus (Bluegill)
Partition coefficient	: 4.6

12.4. Mobility in soil

Ecological information on ingredients.

DELTAMETHRIN TG

Mobility	The product has poor water-solubility.
Henry's law constant	~ 1.252 x 10-3 Pa m3/mol @ °C Estimated value.

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

Ecological information on ingredients.

Pyrethrins and Pyrethroids

Results of PBT and vPvB assessment This product does not contain any substances classified as PBT or vPvB.

DELTAMETHRIN TG

Results of PBT and vPvB assessment This substance is not classified as PBT or vPvB according to current EU criteria.

12.6. Other adverse effects

Other adverse effects Not applicable.

Ecological information on ingredients.

DELTAMETHRIN TG

Other adverse effects Not applicable.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

General information Do not puncture or incinerate, even when empty.

Disposal methods Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority.

SECTION 14: Transport information

Road transport notes Avoid releasing into the environment.

Rail transport notes Avoid releasing into the environment.

Sea transport notes Do not release into the environment.

14.1. UN number

UN No. (ADR/RID) 1950

UN No. (IMDG) 1950

UN No. (ICAO) 1950

14.2. UN proper shipping name

Proper shipping name (ADR/RID) Aerosols (deltamethrin, pyrethrins)

Proper shipping name (IMDG) Aerosols (deltamethrin, pyrethrins)

Proper shipping name (ICAO) Aerosols (deltamethrin, pyrethrins)

Proper shipping name (ADN) Aerosols (deltamethrin, pyrethrins)

14.3. Transport hazard class(es)

ADR/RID class 2

IMDG class 2

ICAO class/division 2.1

14.4. Packing group

ADR/RID packing group Not allocated

IMDG packing group Not allocated

ICAO packing group Not allocated

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant

14.6. Special precautions for user

EmS F-A, S-F

14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code

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

EU legislation Dangerous Substances Directive 67/548/EEC.
Dangerous Preparations Directive 1999/45/EC.

15.2. Chemical safety assessment

No chemical safety assessment has been carried out.

SECTION 16: Other information

Risk phrases in full

R10 Flammable.
R11 Highly flammable.
R12 Extremely flammable.
R20/21/22 Harmful by inhalation, in contact with skin and if swallowed.
R23 Toxic by inhalation.
R25 Toxic if swallowed.
R36 Irritating to eyes.
R50/53 Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65 Harmful: may cause lung damage if swallowed.
R66 Repeated exposure may cause skin dryness or cracking.
R67 Vapours may cause drowsiness and dizziness.

Hazard statements in full

H222 Extremely flammable aerosol.
H225 Highly flammable liquid and vapour.
H226 Flammable liquid and vapour.
H229 Pressurised container: may burst if heated
H301 Toxic if swallowed.
H302 Harmful if swallowed.
H304 May be fatal if swallowed and enters airways.
H312 Harmful in contact with skin.
H319 Causes serious eye irritation.
H331 Toxic if inhaled.
H332 Harmful if inhaled.
H336 May cause drowsiness or dizziness.
H400 Very toxic to aquatic life.
H410 Very toxic to aquatic life with long lasting effects.