



SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **MAQS+**
Item Code: MAQS+
Product Use: Acaricide, Hive cleanser
Restriction of Use: Refer to Section 15

New Zealand Supplier: Ecrotek Ltd.
15E Kerwyn Avenue, Eastfield Green
East Tamaki, Auckland 2013
New Zealand

Telephone 0800117766
Tel +6499287300
Emergency Telephone: 0800 764 766 (National Poison Centre)

Manufacturer: NOD Apiary Products Ltd.
Address: P.O. Box 117, 2325 Frankford Road
Frankford, Ontario Canada K0K 2C0
Telephone: +1 866 483 2929

Date of SDS Preparation: 6 June 2017

Section 2. Hazards Identification

This substance is hazardous according to the HSNO (Minimum Degrees of Hazard) Regulations 2001

EPA Approval No: HSR100672

Pictograms



Toxic



Corrosive

Signal Word: DANGER

HSNO Classification	Hazard Code	Hazard Statement	GHS Category
6.1D (oral)	H302	Harmful if swallowed.	Category 4
6.1D (inhalation)	H332	Harmful if inhaled.	Category 4
8.1A	H290	May be corrosive to metals.	Category 1
8.2B	H314	Causes severe skin burns and eye damage.	Category 1B
8.3A	H318	Causes serious eye damage.	Category 1
9.1D	H401	Toxic to aquatic life.	Category 4

9.3C	H433	Harmful to terrestrial vertebrates.	-
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Prevention Code	Prevention Statement
P102	Keep out of reach of children.
P103	Read label before use.
P234	Keep only in original container.
P260	Do not breathe fumes or vapours.
P264	Wash hands thoroughly after handling.
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 clothing.

Response Code	Response Statement
P101	If medical advice is needed, have product container or label at hand.
P310	Immediately call a POISON CENTER or doctor/physician.
P363	Wash contaminated clothing before reuse.
P390	Absorb spillage to prevent material damage.
P301 + P312	IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P330+P331	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361+P353	IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304 + P340	IF INHALED: Remove to fresh air and keep at rest in a position comfortable for breathing.
P305 + P351+P338	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Storage Code	Storage Statement
P405	Store locked up.
P406	Store in corrosive resistant/... container with a resistant inner liner.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Formic Acid	42.25	64-18-6
Inert ingredients	57.75	Proprietary

Section 4. First Aid Measures

Routes of Exposure:

- If in Eyes Rinse cautiously with water for 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek immediate medical attention.
- If on Skin Wash with plenty of soap and water. Take off contaminated clothing and wash before re-use. Seek immediate medical attention.
- If Swallowed Rinse mouth. DO NOT induce vomiting. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the

head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if you feel unwell.

If Inhaled

Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult or if you feel unwell.

Section 5. Fire Fighting Measures

Hazard Type	Non Flammable
Hazards from combustion products	If heated to decomposition, the following substances may be formed: carbon dioxide, carbon monoxide and smoke.
Suitable Extinguishing media	Dry Chemical, carbon dioxide, water spray, or alcohol resistant foam may be used on fires involving this product.
Precautions for firefighters and special protective clothing	Wear self-contained breathing apparatus, pressure demand, MSHA/NIOSH approved (or equivalent) and full protective gear when fighting fires containing this product. Cool containers with water to prevent rupture.
HAZCHEM CODE	1X

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Clear area of any unprotected personnel.

Pick up any spilled product and place in a sealable High Density Polyethylene (HDPE) container for disposal.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep only in original container.
- Do not breathe fumes or vapours.
- Wash hands thoroughly after handling.
- Do not eat, drink or smoke when using this product.
- Use only outdoors or in a well-ventilated area.
- Avoid release to the environment.
- Wear protective clothing.
- Use caution when opening the container, especially in warm weather, i.e.: open outdoors and stay upwind.

Precautions for Storage:

- Store away from sulfuric acid, oxidizing agents, and sources of ignition.
- Store locked up.
- Store in original container (corrosive resistant) in a cool, dry, and well-ventilated area under 25°C.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Formic acid [64-18-6]	5	9.4	10	19

Workplace Exposure Standard – Time Weighted Average (WES-TWA). *The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure.* Workplace Exposure Standard – Short-Term Exposure Limit (WESSTEL). *The 15-minute average exposure standard.* Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply.

Engineering Controls

Keep away from ignition sources. Keep water handy for eye wash and rinsing should skin contact occur. Work outdoors upwind of the product or provide adequate ventilation. Product is highly corrosive to most metals, avoid contact with metals.

Personal Protection

Eyes	Wear goggles with side shields. Avoid wearing contact lenses.
Hands and Skin	Wear coveralls over a long-sleeved shirt, long pants, socks and shoes, acid resistant gloves (PVC, neoprene or nitrile).
Respiratory	If working indoors wear a respirator with an organic-vapor removing cartridge with a pre-filter approved for pesticides (MSHA/NIOSH approval number prefix TC-23C), or a canister approved for pesticides (MSHA/NIOSH approval number prefix TC-14G), or a NIOSH approved respirator with an organic vapor (OV) cartridge or canister with any N, R, P or HE pre-filter.
General	Avoid contact with eyes, skin and clothing. Do not wear contact lenses. Avoid breathing vapours. Do not swallow. Wash thoroughly after handling and before eating, drinking or smoking. Avoid contamination of food, beverages, or smoking materials. Remove contaminated clothing promptly and clean thoroughly before reuse.

Section 9 Physical and Chemical Properties

Appearance	White to yellow solid
Odour	Vapour has a pungent, penetrating odor.
Odour Threshold	Not applicable
pH	2
Boiling Point	Not applicable
Melting Point	Not applicable
Freezing Point	-17°C
Flash Point	138°C
Flammability	Not applicable
Upper and Lower Exposure Limits	Not applicable
Vapour Pressure	> 44.80 mbarat 20°C (formic acid)
Vapour Density	Heavier than air.
Relative Density	Not applicable
Solubilities	Formic Acid miscible in water, other components non soluble.
Partition Coefficient:	Not applicable
Auto-ignition Temperature	349°C
Decomposition Temperature	Not applicable
Kinematic Viscosity	Not applicable
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Conditions to Avoid	Heat, flame, other sources of ignition
Incompatible Materials	Reacts with amines, alkalis, oxidizing agents and sulfuric acid.
Hazardous Decomposition Products	Not anticipated under normal or recommended handling and storage conditions Carbon dioxide and carbon monoxide may

form when heated to decomposition.

Section 11 Toxicological Information

Acute toxicity: Formic Acid

Oral Rat- LD₅₀: 730 mg/kg

Inhalation Rat LC₅₀: 15 g/m³/15 min

Acute Effects:

Swallowed	Harmful if swallowed.
Dermal	Not applicable.
Inhalation	Harmful if inhaled.
Eye	Causes serious eye damage.
Skin	Causes severe skin burns and eye damage.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.

Section 12. Ecotoxicological Information

HSNO Classes: 9.1D = Toxic to aquatic life.
9.3C = Harmful to terrestrial vertebrates.

Persistence and degradability	All components are biodegradable.
Bioaccumulation	Components do not bio-accumulate.
Mobility in Soil	No data available
Other adverse effects	No data available

Section 13. Disposal Considerations

Disposal Method: Dispose of according to Local Regulations.

Disposal methods to avoid: Do not allow to enter waterways.

Section 14 Transport Information

This product is classified as a Dangerous Good for Rail and Air transport in NZ ; NZS 5433:2012

Product meets the requirement for an exemption for Road transport under UN3244 Special Provision 218

Road and Rail Transport

UN No: Exempt
Class-primary
Packing Group
Proper Shipping Name:

Air Transport

UN No: 3244

Class-primary 8
Packing Group II
Proper Shipping Name: SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S

Marine Transport
UN No: 3244
Class-primary 8
Packing Group II
Proper Shipping Name: SOLIDS CONTAINING CORROSIVE LIQUID, N.O.S

Section 15 Regulatory Information

EPA Approval Code: HSR100672

HSNO Classification: 6.1D (oral, inh), 8.1A, 8.2B, 8.3A, 9.1D, 9.3C

HSNO Controls:
Trigger quantities for this substance:

	Trigger Quantity
Approved Handler	Not required
Location Certificate	Not required
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250L(8.2B)
Emergency Response Plan	1000L(8.2B)
Secondary Containment	1000L (8.2B)
Restriction of Use	Shall not be applied onto or into water.

Section 16 Other Information

Glossary

EC₅₀ Median effective concentration.
EEL Environmental Exposure Limit.
EPA Environmental Protection Authority
HSNO Hazardous Substances and New Organisms.
LC₅₀ Lethal concentration that will kill 50% of the test organisms inhaling
or ingesting it.
LD₅₀ Lethal dose to kill 50% of test animals/organisms.
LEL Lower explosive level.
OSHA American Occupational Safety and Health Administration.
TEL Tolerable Exposure Limit.
TLV Threshold Limit Value-an exposure limit set by responsible
authority.
UEL Upper Explosive Level
WES Workplace Exposure Limit

1. HSNO Approved Code of Practice: Preparation of Safety Data Sheets, September 2006.
Disclaimer

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Please contact the New Zealand distributor, if further information is required.

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6 June 2017

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