

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

COMBAT

SUPPLIER NAME: Zelam Limited
MANUFACTURER: Zelam Limited
SUPPLIER ADDRESS: Hudson Road, Bell Block, New Plymouth, New Zealand
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CHEMICAL FAMILY: Guanidine USE: Fungicide

2. COMPOSITION / INFORMATION ON INGREDIENTS:

COMMON NAME:	CAS NUMBER:	CONCENTRATION %:	HAZARD CLASSIFICATIONS:
Acetic Acid	64-19-7	< 40	R10, R35
Dodine	2439-10-3	< 30	R22, R36/38
Inerts		Balance	

3. HAZARDS IDENTIFICATION:

3.1D; Warning - combustible liquid.
Harmful - may be harmful if swallowed, inhaled or absorbed through the skin.
Harmful - may cause organ damage from repeated oral exposure at high doses.
Danger - this product is corrosive to the skin and may cause burns.
Danger - this product is corrosive and may cause eye damage.
Very Toxic to fish/aquatic organisms with long-lasting effects. Avoid contamination of any water supply with product or empty container.
Harmful to terrestrial vertebrates [birds].
Refer to Section 15 for NZ EPA Requirements.

4. FIRST - AID MEASURES:

EYE CONTACT: Hold eyelids open and immediately flush eyes with flowing water for at least 15 minutes. Get prompt medical attention.
SKIN CONTACT: Immediately flush with plenty of water while removing contaminated clothing. DO NOT scrub the skin. Continue for at least 15 minutes. Wash clothing before reuse.
INHALATION: Avoid inhalation of spray or mists which are likely to be highly irritating. Remove to a source of fresh air and seek medical advice.
INGESTION: If swallowed, rinse mouth with water immediately. DO NOT induce vomiting. Seek medical attention.
NOTES TO DOCTOR: Treat symptomatically. Can cause corneal burns.

5. FIRE FIGHTING MEASURES:

FLASHPOINT: 70.5 °C HAZCHEM Code: 2X
FLAMMABLE LIMITS: Not known
EXTINGUISHING MEDIA: Water spray, foam, or Carbon Dioxide.
THERMAL DECOMPOSITION PRODUCTS: May release carbon monoxide and carbon dioxide and oxides of nitrogen.
SPECIAL FIRE FIGHTING METHODS: Wear chemical resistant clothing. Vapours may be toxic.
UNUSUAL FIRE OR EXPLOSION HAZARDS: Take additional care if mixed with chlorine releasing compounds - increased skin irritancy

6. ACCIDENTAL RELEASE MEASURES:

Use appropriate protective equipment. Clear area of unnecessary personnel. Extinguish any sources of ignition. Spills may be slippery and should be cleaned up immediately. Large spill: Dike and pump as much as possible to a salvage container. Absorb the remaining liquid and any small spills with clay granules, sand or other absorbent material and sweep to a waste container. Cover the spill area with water and absorb. Minimise run-off into waterways or drains.

7. HANDLING AND STORAGE:

Corrosive, Combustible liquid. Harmful - Keep out of reach of children.
Details of segregation of Combat [Class 3.1D] from other classes of goods can be found in Reg 76 of the Hazardous Substances [Classes 1 to 5 Controls] Regulations 2001.
Store in original container in a secure, cool, well ventilated place, away from extreme heat and ignition sources. Make sure the material does not come into contact with strong alkalis or oxidizing agents. Keep container tightly closed and away from food, food related materials, animal feedstuffs, seed or fertilizer.
Wear personal protective equipment appropriate to the situation when handling product. Wash protective clothing daily after work.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION:

EXPOSURE LIMITS: No exposure limits (TEL, or EEL's) have been specifically assigned for this product.
Acetic acid: WES-TWA 10 ppm, 25 mg/m³; WES-STEL 15 ppm, 37 mg/m³
EYE PROTECTION: Avoid eye contact. Wear chemical goggles or face shield where splash may occur.
RESPIRATORY PROTECTION: .Avoid breathing in vapours or aerosol from the product. Use an appropriate respirator if exposed to the vapours or aerosol from the product.
For short term exposure to mists and aerosols use a mask and filter eg. Filter A-P2 or a filter canister for organic vapours.
PROTECTIVE CLOTHING: Avoid skin contact. Wear protective clothing such as impervious gloves, waterproof hat, coat and trousers (worn outside rubber boots) when using. Wash protective clothing daily after work.
VENTILATION: Transfer or mix with adequate ventilation.
HYGIENE PRECAUTIONS: Do not eat drink or smoke while working with this product. Remove clothing that becomes soaked or contaminated and wash before reuse. Wash hands before breaks and after work. The use of a skin barrier cream is useful to give additional skin protection.

9. PHYSICAL AND CHEMICAL PROPERTIES:

APPEARANCE / STATE / ODOUR: Clear liquid with acetic odour

BOILING POINT:	Not available	pH:	3.3 [5% aqueous solution]
DENSITY:	1.035	SETTING POINT:	Not available
DECOMPOSITION TEMP:	Not available	AUTOIGNITION TEMP:	Not available
FLASHPOINT:	70.5 °C	VAPOUR DENSITY:	Not available
EXPLOSION PROPERTIES:	Not available	VAPOUR PRESSURE:	Not available
SOLUBILITY:	Soluble in water		
OTHER DATA:			
OCTANOL / WATER PARTITION COEFFICIENT:	Not available		

10. STABILITY AND REACTIVITY:

CONDITIONS TO AVOID: Product is stable under normal temperatures and pressures. Avoid exposure to heat, sources of ignition, and open flame.

MATERIALS TO AVOID: Avoid strong alkalis, oxidising agents and metals.

HAZARDOUS DECOMPOSITION PRODUCTS: Thermal decomposition may release carbon monoxide and carbon dioxide and oxides of nitrogen.

11. TOXICOLOGICAL INFORMATION:

ACUTE ORAL: LD50 Rats: 3000 mg/Kg (by calculation)

ACUTE DERMAL: High

ACUTE INHALATION:

OTHER TOXICITY INFORMATION: 6.1D; Harmful - may be harmful if swallowed, inhaled or absorbed through the skin.
6.9B; Harmful - may cause organ damage from repeated oral exposure at high doses.
8.2B; Danger - this product is corrosive to the skin and may cause burns.
8.3A; Danger - this product is corrosive and may cause eye damage.

12. ECOLOGICAL INFORMATION:

Aquatic Toxicity: LC50 (96h) fish 2.66 mg/L (by calculation).
Soil Toxicity: LC50 Eisenia foetida; Not Available
Terrestrial Vertebrates - Birds: LD50 birds 3990 mg/kg (by calculation).
Terrestrial Invertebrates - Bees: LD50; 55.8 µg/bee (by calculation).

9.1A; Very Toxic to fish with long-lasting effects. Avoid contamination of any water supply with product or empty container.
9.3C; Harmful to terrestrial vertebrates [birds].

13. DISPOSAL CONSIDERATIONS:

Dispose of this product only by using according to the label. Triple rinse container and add rinsate to spray tank. Crush or puncture cleaned, empty containers and dispose of container at an approved landfill or Agrecovery Depot. Avoid contamination of any water supply or stream with this product or empty container.

14. TRANSPORT INFORMATION:

Proper Shipping Name:	CORROSIVE LIQUID, N.O.S.	UN Hazard Class:	8
UN Number:	1760	Packing Group:	III
Hazchem Code:	2X		
Additional Information:	Contains Dodine and Acetic Acid		

This product requires segregation from certain other Classes of Dangerous Goods. Check the latest LTSA DG Rule 45001 for additional information. Do not carry more than 0.5 L of this product on a passenger service vehicle.

15. REGULATORY INFORMATION:

APPROVED HANDLER: The product must be under the personal control of an approved handler when:

- the product is applied in a wide dispersive manner; or
- used by a commercial contractor.

However, it may be handled by a person who is not an approved handler if:

- an approved handler is present at the facility where the substance is being handled; and
- the approved handler has provided guidance to the person in respect to the handling of the product; and
- the approved handler is available at all times to provide assistance if necessary.

Combat shall NOT be applied onto or into water and shall be applied via ground based application methods only.

RECORD KEEPING: A written record of each application or discharge must be kept where -

- members of the public may lawfully be present; or
- the substance is likely to enter the air or water supply and leave the area where it is under control.

The information must be kept for a minimum of three [3] years.

ACVM Pesticide Number: P008418 NZ EPA Approval Code: HSR1000561
See the NZ EPA Website for more details: www.epa.govt.nz

16. OTHER INFORMATION:

The data given here is based on current knowledge and experience. The purpose of this safety data sheet is to describe the products in terms of their safety requirements. The data does not signify any warranty with regard to the products' properties.