

## VILLA SUMMIT

## MATERIAL SAFETY DATA SHEET

### 1. IDENTIFICATION OF PRODUCT AND COMPANY

**Product Name:** **SUMMIT**  
 Salt Adjuvant  
**UN No.** **Not Regulated**  
**Supplier:** **Villa Crop Protection (Pty) Ltd.**  
 PO Box 10413  
 Aston Manor, 1630, South Africa  
**Telephone:** (011) 3962233  
**Fax:** (011) 3964666  
**Website:** [www.villacrop.co.za](http://www.villacrop.co.za)

#### Emergency telephone numbers:

#### 24 Hr Transport / Spill emergency no:

Envirosure. +27 31 205 4918  
 (Hazcall24) +27 86 044 4411

(Client: Villa Crop Protection)

Griffon Poison Information Centre +27 82 446 8946

(Client: Villa Crop Protection)

#### Poisoning Emergency telephone numbers:

Griffon Poison Information Centre +27 82 446 8946

Poisons Information Centre +27 861 555 777

#### Villa Crop Protection Emergency number:

#### National Safety, Health and Environmental Manager:

+27 63 698 0668

### 2. COMPOSITION/INFORMATION ON INGREDIENTS

**Active Ingredient:** diaminomethanal (Cas 57-13-6)  
 +

**Formulation:** ammonium salt (Cas 6484-52-2)  
 Solution of diaminomethanal +  
 ammonium salt (Water-soluble  
 liquid) [Nitrogen solution]

**Use:** Adjuvant for pesticides.

**Symbol:** C, Xn, Xi

**Risk Phrases:** R22, R 36/38, R41

### 3. HAZARD IDENTIFICATION

#### Eye contact:

Dried salts or liquid may cause redness, pain and irritation to eye.

#### Ingestion:

Dried salts or liquid may cause gastric irritation, nausea, abdominal spasms, vomiting and faintness. Large doses may cause systemic acidosis and methemoglobinemia.

#### Skin:

Dried salts or liquid may irritate skin resulting in reddening of the skin and possible dermatitis. Frequent or prolonged contact may promote an allergic reaction.

#### Inhalation:

Dried salts may be irritating to mucous membranes, respiratory tract, causing sore throat, coughing, difficult

breathing and severe lung congestion. Delayed reactions may result in pulmonary edema and chemical pneumonitis.

### 4. FIRST AID MEASURES AND PRECAUTIONS

#### Inhalation:

Remove to fresh air. If breathing has stopped, apply artificial respiration. Keep warm and at rest. Get immediate medical attention.

#### Skin contact:

Immediately remove contaminated clothing and shoes. Wash the affected area with soap and flush with large amounts of water. Get medical attention if discomfort persists.

#### Eye contact:

Immediately flush with large amounts of water, including under the eyelids. If discomfort persists contact a physician, preferably an Ophthalmologist. Speed and thoroughness in rinsing eyes are important to avoid permanent injury.

#### Ingestion:

Do not induce vomiting. If vomiting occurs, keep head below hips to help prevent aspiration. Get immediate medical attention. Treat for methemoglobinemia.

#### Advice to physician:

Both ammonium & diaminomethanal components have diuretic actions. Large doses may cause vomiting. Acidosis may occur in presence of impaired renal function. Treat for methemoglobinemia.

### 5. FIRE FIGHTING MEASURES

#### Fire and explosion hazard:

Will not burn or support combustion, but will decompose into noxious, poisonous gases when exposed to the high temperatures of a fire. The solutions may become explosive if combined with a flammable substance and/or dried to a low percentage of water.

**Flash point:** Not flammable.

**Hazardous products of combustion:** Ammonia oxidized further to Nitric Oxide, Nitrogen Dioxide.

#### Extinguishing agents:

Water.

#### Fire fighting:

Remove spectators from surrounding area. Isolate the fire area and evacuate downwind. Use a recommended extinguishing agent for the type of surrounding fire. **SUMMIT** is not flammable. Use water to extinguish a fire involving **SUMMIT** if water is compatible with the burning material. Apply cooling water to sides of containers that are exposed to fire, until well after the fire is out. Water must be contained for later disposal. Positive pressure, self-contained breathing apparatus should be used when there is a potential for inhalation of vapours and/or fumes.

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Fight fire from maximum distance and use unmanned hose holder or monitor nozzles. Keep upwind. Remove container from fire area if possible and without risk.

Dyke fire control water for later disposal. Do not scatter the material. Avoid pollution of waterways. Do not use high volume water jet, due to contamination risk. Avoid the accumulation of polluted run-off from the site. Dried ammonium salts, when sensitized or when decomposing, may become unstable or explosive.

### Personal protective equipment:

Fire fighters and others that may be exposed should wear full protective clothing and self-contained breathing apparatus. Keep upwind.

### 6. ACCIDENTAL RELEASE MEASURES (SPILLAGE)

#### Personal precautions:

Avoid contact with skin and eyes. Do not breathe in spray or fumes. Spillage may be slippery. For personal protection see Section 8.

#### Environmental precautions:

Do not allow entering drains or watercourses. Spillage or uncontrolled discharges into water courses (or public waters) to be reported immediately to the Police and to the Department of Water/Environmental Affairs. Considered as Marine Pollutant.

#### Occupational spill:

Do not touch-spilled material; stop leak if you can do it without risk. Keep out unprotected persons and animals.

**For spills:** Remove sources of heat or ignition. Clean-up spill but do not flush to surface water. Contaminated soil can be spread as if it were a fertilizer. In situations where product comes in contact with water, contain contaminated water for later disposal. Prevent material from spreading by damming in with absorptive material. Do not flush spilled material into drains. Keep spectators away and upwind. Dried ammonium salts, when sensitized or when decomposing, may become unstable or explosive.

### 7. HANDLING AND STORAGE REQUIREMENTS

#### Handling:

Do not use near source of sparks or open flames. Harmful in contact with skin and if swallowed. Irritating to eyes and skin. Avoid contact with eyes and skin, and inhalation of spray and vapour. Use with adequate ventilation. Wash hands before eating, drinking, chewing gum, smoking, or using the toilet. Operators should change and wash clothing daily. Remove clothing immediately if the product gets inside. Then wash skin thoroughly using a non-abrasive soap and put on clean clothing. Do not apply directly to areas where surface water is present, or to intertidal areas below the mean high water mark. Water used

to clean equipment must be disposed of correctly to avoid contamination.

#### Storage:

Store away from incompatible materials or sources of heat and ignition. Do not pressurize or expose containers to heat, flames, sparks or other sources of ignition; they may evolve poisonous gas, or become unstable/explode and cause injury or death. Keep out of reach of unauthorised persons, children and animals. Store in its original labelled container in isolated, dry, cool and well-ventilated area. Not to be stored next to foodstuffs and water supplies. Keep away from incompatible substances. Local regulations should be complied with.

#### Disposal:

Dispose of through a licensed waste disposal company. Follow local regulations.

### 8. EXPOSURE CONTROL / PERSONAL PROTECTION

It is essential to provide adequate ventilation. The measures appropriate for a particular work site depend on how this material is used and on the extent of exposure. Ensure that control systems are properly designed and maintained. Comply with occupational safety, environmental, fire, and other applicable regulations.

#### PERSONAL PROTECTIVE EQUIPMENT:

If engineering controls and work practices are not effective in controlling exposure to this material, then wear suitable personal protective equipment including approved respiratory protection.

#### Inhalation protection:

Dried salt or aerosol solution will dissolve with mucosal membrane contact (lungs). Use approved respiratory protective equipment for cleaning large spill.

#### Clothing:

It is an aqueous salt solution and will dissolve with perspiration contact. Wearing of appropriate protective clothing is suggested if epidermal sensitivity develops.

#### Gloves:

Employee must wear appropriate synthetic protective gloves to prevent contact with this substance.

#### Eye protection:

It is an aqueous salt solution and will dissolve with mucosal membrane contact (eyes). Remove contact lenses and wear safety glasses, chemical goggles or face shield where contact with liquid or dried salt may occur.

**Emergency eyewash:** Immediately flush with large amounts of water, including under the eyelids. If discomfort persists contact a physician, preferably an Ophthalmologist. Speed and thoroughness in rinsing eyes are important to avoid permanent injury. Where there is any possibility that an employee's eyes may be exposed to this substance, the employer should provide an eye wash

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fountain or appropriate alternative within the immediate work area for emergency use.

**Acute eye irritation in rabbits:**  
 Severe irritant may cause serious damage to eyes.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**Appearance:**  
 Clear liquid with slight ammonia odour.  
**Solubility:**  
 118 g / 100 g water @ 0°C.  
**pH:**  
 5.7 to 7.2 (20°C).  
**Density:**  
 ca. 1.28 g/cm<sup>3</sup> (20°C).  
**Boiling point:**  
 100°C.  
**Vapour pressure:**  
 8.6 to 17.5 mm Hg.  
**Decomposition point:**  
 114°C.  
**Crystallization point:**  
 -9°C.  
**Corrosiveness:**  
 Corrosive to metal.  
**Flash point:**  
 Non Flammable.  
**Flammable Limits:**  
 N.A.

**Dermal sensitisation:**  
 N.A.

## 12. ECOLOGICAL INFORMATION

**ECOTOXICOLOGY:**  
**Fish:**  
 LC<sub>50</sub> (96hrs): *Oncorhynchus mykiss*: 103 mg/l  
 LC<sub>50</sub> (96hrs): *Pimephalas promelas* 100 to 500 mg/l

Product is considered a water pollutant and toxic to aquatic life. Algae blooms may form in static water contaminated with **SUMMIT**. The ammonia may form nitrates or nitrites in water, which will decrease the dissolved oxygen. Product can cause poisoning to livestock or poultry.

## 10. STABILITY AND REACTIVITY

**Stability:**  
 Chemically and thermally stable under normal pressures and temperatures.  
**Storage stability:**  
 Stable for a period of 2 years under normal warehouse conditions.  
**Incompatibility:**  
 Concentrated acids such as nitric acid, strong bases, and heat. Hypochlorite's or chlorine may react with **SUMMIT** to form nitrogen trichlorite that may be explosive.  
**Thermal decomposition products:**  
 Ammonia, oxidized further to Nitric Oxide, Nitrogen Dioxide.  
**Polymerization:**  
 Not known to occur under normal conditions.

## 13. DISPOSAL CONSIDERATION

**Product disposal:**  
**SUMMIT** is not considered a hazardous waste. Open dumping or burning of this product is prohibited. Waste resulting from the use of this product cannot be reused or reprocessed. Never pour untreated waste or surplus products into public sewers or where there is any danger of run-off or seepage into water systems. Do not contaminate rivers, dams or any other water sources with the product or used containers. Comply with local legislation applying to waste disposal.  
**Container disposal:**  
 Emptied containers retain vapour and product residues. Observe all labelled safeguards until container is destroyed.  
**TRIPLE RINSE** empty containers in the following manner: Invert the empty container over the spray or mixing tank and allow draining for at least 30 seconds after the flow has slowed down to a drip. Thereafter rinse the container three times with a volume of water equal to a minimum of a third of that of the container. Add the rinsing to the contents of the spray tank before destroying the container in the prescribed manner.  
 Do not re-use the empty container for any other purpose but destroy it by perforation and flattening and bury in an approved dumpsite. Prevent contamination of food, feedstuffs, drinking water and eating utensils. Comply with local legislation applying to waste disposal.

## 11. TOXICOLOGICAL INFORMATION

**Acute oral LD<sub>50</sub> in rats:**  
 >2000 mg/kg  
**Acute dermal LD<sub>50</sub> in rats:**  
 N.A.  
**Acute skin irritation in rabbits:**  
 May cause irritation & inflammation.

## 14. TRANSPORT INFORMATION

Not considered hazardous  
**UN NUMBER:** NOT REGULATED  
**Road Transport ADR/RID:**  
 Class: 8

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Packaging group: III  
 Shipping name: diaminomethanal (Cas 57-13-6) + ammonium salt (Cas 6484-52)

### Air Transport IATA/ICAO:

Class: 8  
 Packaging group: III  
 Shipping name: diaminomethanal (Cas 57-13-6) + ammonium salt (Cas 6484-52)

### Maritime Transport IMDG/IMO:

Class: 8  
 Packaging group: III  
 Shipping name: diaminomethanal (Cas 57-13-6) + ammonium salt (Cas 6484-52)

### END OF DOCUMENT

**Compiled:** Augustus 2008  
**Reviewed:** March 2019  
**Revision no.:** (2)  
**Next revision date:** March 2024

For detailed information on revisions, contact the Registration holder.

## 15. REGULATORY INFORMATION

**Symbol:** C, Xn, Xi  
**Indication of danger:** Corrosive, Harmful & Irritating Substance

### Risk phrase(s):

**R 22** Harmful if swallowed.  
**R 36/38** Irritating to eyes and skin.  
**R 41** Risk of serious damage to eyes.

### Safety phrases:

**S 1/2** Keep locked up and out of reach children.  
**S 13** Keep away from food, drink and animal feeding stuffs.  
**S 24/25** Avoid contact with skin and eyes.  
**S26** In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.  
**S 36** Wear suitable protective clothing.  
**S39** Wear eye/face protection

## 16. OTHER INFORMATION

**Packaging:** Packed in 1, 5, 10, 20 and 25 litres plastic bottles or plastic drums and labelled according to South African regulations and guidelines.

**Disclaimer:** The information on this sheet is not a specification; it does not guarantee specific properties. The information is intended to provide general guidance as to health and safety based upon our knowledge of the handling, storage use of the product. It is not applicable to unusual or non-standard uses of the product nor where instructions or recommendations are not followed. All information is given in good faith but without guarantee in respect of accuracy, and no responsibility is accepted for errors and omissions or the consequence thereof.