

Safety Data Sheet (SDS) VEN 800WP/01

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According to UN GHS 9th Ed
Revision Date: 2022/02/09

First print date: 2020/09/01

Version: 1.1

SECTION 1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY/UNDERTAKING

Product identifier:

Identification as on the label/Trade name: **VENTUM 800 WP**

Additional information: Product code VEN 800 WP/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Fungicide.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

AECI Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
AECI Limited: (011) 823 8000 (o/h) Spill Tech: 086 100 0366 (a/h)

SECTION 2. HAZARD IDENTIFICATION

Classification of the substances or mixture

The mixture is classified according to

SANS 10234:2019, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Skin irritation (Category 2)	H315
Skin sensitisation (Category 1)	H317
Serious eye damage (Category 1)	H318
Carcinogenicity (Category 2)	H351
STOT RE 2	H373
Reproductive toxicity (Category 1B)	H360
Hazardous to the aquatic environment (Acute 1)	H400
Hazardous to the aquatic environment (Chronic 1)	H410

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: None.

The most important adverse human health effects: May cause skin allergies and/or skin irritation and eye damage.

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Label elements

Hazard pictograms:



Signal Word: Danger

Hazard Statements: H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H351 Suspected of causing cancer. H360D May damage the unborn child. H373 May cause damage to thyroid and nervous system through prolonged or repeated exposure. H410 Very toxic to aquatic life with long lasting effects.

Precautionary Statements: P201 Obtain special instruction before use. P261 Avoid breathing dust. P264 Wash thoroughly after handling. P280 Wear protective gloves/ protective clothing/ eye protection/ face protection. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P304+ P311 If inhaled call a poison centre.

Special labelling of certain mixtures: None

Other hazards: None

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance/Mixture: Mixture

Ingredients: Classification is based on the following ingredients which may be present.

Substance name (IUPAC/EC)	CAS –No.	Concentration % by weight	Classification
	EC-No.		EC1272/2008
Mancozeb	8018-01-7	90-95%	Skin sensitisation (Category 1) H317. Carcinogenicity (Category 2) H351. STOT RE 2 H373 thyroid, nervous system. Reproductive toxicity (Category 1B) H360D. Aquatic acute 1 H400. Aquatic chronic 1 H410. (M=10)
Sodium salt alkyl sulphonate	68037-49-0	1-3%	Acute toxicity oral, dermal (Category 4) H302+H312. Skin corrosion (Category 1) H314. Serious eye damage (Category 1) H318.
Alkyl naphthyl sulphonate	25417-20-3	1-3%	Acute toxicity oral, inhalation (Category 4) H302+ H332. Serious eye damage (Category 1) H318. STOT SE 3 H335.
	246-960-6		

For full text of H statements see section 16

There are no additional ingredients present which, within the current knowledge of the supplier and in the concentrations applicable, are classified as hazardous to health or the environment and hence require reporting in this section.

Occupational exposure limits, if available, are listed in Section 8.

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SECTION 4. FIRST AID MEASURES

Description of first aid measures:

In case of inhalation: If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

In case of skin contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.

In case of eye contact: Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.

In case of ingestion Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Loosen tight clothing such as a collar, tie, belt or waistband. Get medical attention if you feel unwell.

Most important symptoms and effects, both acute and delayed:

Inhalation: May be harmful if inhaled and cause irritation.

Ingestions: May be harmful if swallowed.

Skin contact: May cause skin allergies and or irritation.

Eye contact: Causes serious eye damage.

Indication of any immediate medical attention and special treatment needed:

Treat symptomatically.

SECTION 5. FIRE -FIGHTING MEASURE

Extinguisher media:

Suitable extinguisher media:

SMALL FIRE: Use dry chemical powder.

LARGE FIRE: CO₂ foam. Do not use water jet.

Unsuitable extinguishing media: Water

Special hazards arising from the mixture:

Spontaneous combustion may occur at high temperatures or when exposed to water. Exposure to excessive heat or ignition sources presents a definite ignition hazard. Keep containers tightly closed when not in use. Fire can occur in closely packed, unventilated piles of bags. Exposure to moisture promotes decomposition which can cause spontaneous combustion. Check containers for warmth and remove warm containers to open areas for disposal. Mancozeb is combustible. Dusts at sufficient concentration can form explosive mixtures with air. Mancozeb is liable to spontaneous combustion at high temperatures or when exposed to water. Do not expose this material to flame or sparks. Minimize dusting as Mancozeb dust can form explosive clouds. This product has minimum ignition, hazardous combustion products, sensitivity to explosion by mechanical impact, sensitivity to explosion by static discharge energy between 300 and 1000 millijoules, mechanical sparks and other ignition sources where dust clouds of this material could form. During a fire, irritating and possibly toxic gases may be generated by thermal decomposition or combustion.

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Advice for fire-fighters:

Fire fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear. Be sure to use an approved/certified respirator or equivalent equipment until decontaminated. Move container from the fire area if possible. Fight fire from the maximum distance, avoid breathing hazardous vapours, keep upwind. Stay away from storage tank ends. Use agents suitable for type of surrounding. Extinguish only if flow can be stopped. Do not scatter spilled material with high pressure water streams. Dike fire control water for later disposal. Cool tank/container with water spray. If area is heavily exposed to fire and if conditions permit, let fire burn itself out since water may increase the contamination hazard.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

For non-emergency personnel: Wear protective adapted equipment and take back non protected people. Withdrawal combustion and ignition sources and block bringing in oxygen (ventilation).

For emergency responders: Splash goggles, gloves and respiratory equipment, be sure to use an approved/certified respirator or equivalent.

Environmental precautions:

Stop leak if without risk. Do not get water inside container. Do not touch spilled material. Use water spray to reduce vapours, if any. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal.

Methods for containment and cleaning up:

For small spills Contain spilled material if possible. Collect in suitable and properly labelled containers.

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in well labelled container for disposal according to local regulations.

Reference to other sections:

See section 7 for information on safe handling.

See section 8 for information on personal protection equipment.

See section 13 for information on disposal.

Additional information:

None.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Store the material in a well-ventilated, secure area out of the reach of children and domestic animals. Ideally store the product below 30°C, never expose the product to temperature excess of 50°C. Do not allow the product to become overheated as decomposition may result.

Decomposition produces a foul odour due to formation of toxic, flammable gases. Remove wet/damp or hot containers immediately to an open area for disposal. This product is combustible, do not allow it to ignite. Do not store food, beverages, or tobacco products in the storage area. Prevent eating, drinking, tobacco usage and cosmetic application in areas where there is a potential for exposure to the material. Always wash thoroughly after handling.

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Protective measures: Observe directions on label and instructions for use.

Advice on general occupational hygiene: Do not eat drink or smoke when handling this product.

Conditions for safe storage, including incompatibilities:

Store product in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL): No information available.

Biological exposure indices (BEI): No information available.

Additional exposure limits under the conditions of use: No information available.

Exposure control: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday. A Risk Assessment should be conducted before handling is to commence to determine specific exposure control. Ensure that eyewash stations and safety showers are close to the workstation location.

Appropriate engineering controls: Use local exhaust ventilation, or other engineering controls to maintain dust, if available maintain airborne levels below exposure limit requirements or guidelines.

Hygiene measures: Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period. Ensure that eyewash stations and safety showers are close to the workstation location.

Eye/face protection: Use safety glasses. If there is a potential for exposure to particles/mist which could cause eye discomfort, wear chemical goggles.

Hand protection: Use chemical resistant gloves. Examples of preferred glove barrier materials include Nitrile/butadiene rubber, Polyethylene, Ethyl vinyl alcohol laminate, Polyvinyl alcohol, Polyvinyl chloride.

Body protection: Wear appropriate clothing for task or operation. Keep working clothes separately.

Respiratory protection: Respiratory protection is required use an approved air-purifying respirator.

Environmental exposure controls: Prevent product from entry into sewers and water courses.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance (form): Homogeneous powder.

Colour: Yellow to green.

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Odour: Musty odour.

Odour threshold: No information available.

pH (at concentration): 6-9 (concentration unknown).

Melting point/range (°C): No information available.

Boiling point/range (°C): No information available.

Flash point (°C): Not applicable.

Evaporation rate: No information available.

Flammability (solid, gas): Non-flammable.

Ignition temperature (°C): No information available.

Upper/lower flammability/explosive limits: No information available.

Vapour pressure (20°C): $1.1 \cdot 10^{-4}$ Pa (Mancozeb Technical).

Vapour density: No information available.

Relative density (25°C): No information available.

Water solubility: Partially miscible.

n-Octanol/Water partition coefficient: $\log_{KOW} = -0.50$ (Mancozeb Technical)

Auto-ignition temperature: No information available.

Decomposition temperature: No information available.

Viscosity, dynamic (mPa s): No information available.

Physical hazards:

Explosive properties: Spontaneous combustion may occur at high temperatures or when exposed to water.

Other information:

Fat solubility (solvent-oil to be specified): No information available.

Bulk density: 600-700 kg/m³.

Dissociation constant in water (p Ka): No information available.

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Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

Stable under normal conditions, but spontaneous combustion at high temperatures or when exposed to water.

Chemical stability:

Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

Hazardous polymerization will not occur.

Conditions to avoid:

Protect from moisture, heat, open flames or other sources of ignition, storage conditions without ventilation or at temperature above 48°C. Fire can occur in tightly packed, non-ventilated piles of bags, exposure to moisture promotes decomposition which can cause spontaneous combustion.

Incompatible materials:

Oxidizing agents, acids.

Hazardous decomposition products:

Carbon disulphide, hydrogen sulphide.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Metabolism: Mancozeb

The spectrum of metabolites produced was similar in laboratory and farm animals, pointing to two common metabolic pathways, which both lead ultimately to the formation of glycine and to incorporation of the metabolites into natural products. Extensively metabolised in plants, forming ethylenethiourea, ethylenethiuram monosulfide, ethylenethiuram disulfide and sulphur as transitory intermediates. Terminal metabolites are natural products, especially those derived from glycine.

Excretion: Mancozeb

Poorly absorbed and rapidly excreted in animals.

Information on toxicological effects:

Acute toxicity:

Mancozeb

Acute toxicity oral LD₅₀ for rat >5000 mg/kg.

Dermal LD₅₀ for rat > 10 000 mg/kg for rabbits >5000 mg/kg.

Inhalation LC₅₀ (4 h) for rat >5.14 mg/ℓ.

Chronic toxicity: No information available.

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Skin corrosion/irritation:

Mancozeb

Rabbit- Not irritant to skin.

Serious eye damage/irritation:

Mancozeb

Rabbit- Moderate eye irritating.

Respiratory or skin sensitization:

Mancozeb

No dermal sensitisation in Buehler test; may cause dermal sensitisation in guinea pig maximisation test.

Germ cell mutagenicity: No information available.

Carcinogenicity: No information available.

Reproductive toxicity:

Mancozeb

Below parentally toxic levels, mancozeb was observed to have no effect on reproduction, on neonatal survival, or on growth or development.

At very high, maternally toxic levels, mancozeb has caused birth defects in test animals; ethylenethiourea, a trace contaminant and breakdown product of mancozeb, has caused thyroid effects, tumours and birth defects in laboratory animals.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Mancozeb

Toxicity:

Birds: Acute oral LD₅₀ (10 d) for Mallard ducks >5500 mg/kg, for Japanese quail 5500 mg/kg, for English sparrow (*Passer domesticus*) >1290 mg/kg, European starlings (*Sturnus vulgaris*) >2400 mg/kg.

Acute dietary LC₅₀ (8 d) for Bobwhite quail and Mallard ducks >5200 mg/kg diet.

Chronic reproduction NOEL for mallard ducks 125 and Bobwhite quail 300 mg/kg diet.

Fish: LC₅₀ (96 h, flow-through) for Rainbow trout 1.0 mg/ℓ and Bluegill sunfish >3.6 mg/ℓ.

NOEC (34 d, early life-stage) for Fathead minnows 0.022 mg/ℓ; extended growth NOEC (14 d) for Rainbow trout 0.66 mg/ℓ.

Daphnia: EC₅₀ (48 h, flow-through) 3.8 mg/ℓ.

Other aquatic spp. EC₅₀ (24 h) for rotifers (*Brachionus calyciflorus*) 0.11 mg/ℓ.

LC₅₀ (48 h) for snails (*Lymnae stagnalis*) >113 mg/ℓ, amphipods (*Gammarus sp.*) 3.0 mg/ℓ, Isopods (*Asellus sp.*) 4.4 mg/ℓ.

Outdoor mesocosm (11 w, macroinvertebrates and phytoplankton communities), after 8 applications, EAC 0.032 mg/ℓ.

Bees: LD₅₀ oral >209 µg/bee.

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LD₅₀ contact >400 µg/bee.

Worms: LC₅₀ (14 d) for *Eisenia foetida* >1000 mg/kg soil; (56 d) reproduction NOEC for *Eisenia foetida* 20 mg/kg soil.

Other beneficial spp. Mancozeb is of low toxicity to the majority of non-target and beneficial arthropods; LR₅₀ (lab.) for *Aphidius rhopalosiphii*, *Chrysoperla carnea* and *Poecilus cupreus* >2400 g/ha, for *Typhlodromus pyri* 26.67 g/ha.

In extended lab. tests, LR₅₀ for *Aphidius rhopalosiphii* and *Chrysoperla carnea* >7690 g/ha, for *Typhlodromus pyri* 104.4 g/ha, for *Orius laevigatus* >3200 g/ha, for *Pardosa* sp. >3200 g/ha and LC₅₀ for *Hypoaspis aculeifer* >4.3 mg/kg soil.

Toxicity to certain predatory Phytoseiidae (mites) observed in laboratory tests has not been observed in the field to the same level or extent. Field studies in vines have shown acceptable levels of effect compatible with IPM on a range of predatory phytoseiid species when used according to good agricultural practice. Where effects are noted, mite populations have been shown to recover rapidly.

Persistence and degradability:

Mancozeb is rapidly degraded in the environment by hydrolysis, oxidation, photolysis and metabolism.

Bioaccumulative potential:

Mancozeb does not bioaccumulate.

Mobility in soil:

Mancozeb breaks down rapidly in soil, sediment and water; terminal metabolites are natural products and with mineralisation to carbon dioxide. Soil DT₅₀ <1 d (ave., 20 °C). K_{oc} 998 ml/g (ave., 4 soils).

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

Very toxic to aquatic life. Avoid release to environment.

SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

Consider suitable waste recycling, re-use or recovery options. Dispose of in accordance with municipal, provincial and national regulations. Waste Classification and Management Regulations (GN 634 of 2013). Dispose and or manage in accordance with the requirements contained in R634 Waste Classification & Management Regulations, R635 National Norms & Standards for the Assessment of Waste for Landfill Disposal and R636 National Norms & Standards for Disposal of Waste to Landfill.

Product/ packaging disposal:

Treat as hazardous waste and dispose of in accordance with municipal, provincial and national regulations.

SECTION 14. TRANSPORT INFORMATION

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	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	3077	3077	3077
UN Proper shipping name:	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mancozeb)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mancozeb)	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (Mancozeb)
Transport hazard class:	9	9	9
Packaging group:	III	III	III
Marine pollutant:	Yes	Yes	Yes
Special precautions for user:	No information	No information	No information
Transport in bulk according to MARPOL 73/78 Annex II and the IBC code	No information	No information	No information

Inland waterways: No information.

Emergency response information: Not information.

SECTION 15. REGULATORY INFORMATION

Safety, health and environmental regulations/legislation for the mixture:

Relevant information regarding authorization: Occupational Health and Safety Act 1993. Regulation for Hazardous Chemical Agents, 2021. UN Recommendations on the Transport of Dangerous Goods Model Regulations Rev. 21 (2019), Globally Harmonized System of Classification and Labelling of Chemicals (GHS) Rev 9, 2021.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH).

Relevant information regarding restrictions: None.

EU regulations: Regulation EC 1272/2008 [EU-GHS/CLP]

Other National regulations: National Road Traffic Act, 1996 (ACT NO. 93 of 1996).

SANS 10228:2012- The identification and classification of dangerous goods for transport by road and rail modes.

National Environmental Management: Waste Act 59 of 2008.

Chemical Safety Assessment carried out? No

SECTION 16. OTHER INFORMATION

Indication of changes:

All sections.

Relevant classification and H statements (number and full text):

Aquatic acute 1- Hazardous to the aquatic environment (Acute 1).

H302+H312 Harmful if swallowed or in contact with skin. H314 Causes skin burns and severe eye damage H315 Causes skin irritation. H317 May cause an allergic skin reaction. H318 Causes serious eye damage. H332 Harmful if inhaled. H335 May causes respiratory irritation. H360D May damage the unborn child. H373 May cause damage to thyroid and nervous system through prolonged or repeated exposure. H400 Very toxic to aquatic life. H410 Very toxic to aquatic life with long lasting effects.

Training instructions:

Use as indicated on the label, special training may be required for application.

Further information:

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This information is based upon the present state of our knowledge. This SDS has been compiled and is solely intended for this product.

Notice to readers:

Employers should use this information only as a supplement to other information gathered by them and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees.

This information is furnished without warranty, and any use of the product not in conformance with this Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.