



Safety Data Sheet (SDS) VIN DP/01

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According to SANS 11014:2010 & 10234:2008
Revision Date: 2018/02/22

First print date: 2015/05/02

Version: 1.3

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

Product identifier:

Identification as on the label/Trade name: **VINE & DUSTING SULPHUR**

Additional information: Product code VIN DP/01

Relevant identification uses of the substance and uses advised against:

Identified uses: Fungicide, insecticide and miticide.

Uses advised against: Use only as directed.

Details of the supplier of the Safety Data Sheet:

NULANDIS, A Division of AECL Limited
14 Field Road, LILANTON

Emergency telephone numbers:

Griffon Poison information centre: 082 446 8946
Poisons Information Helpline: 0861 555 777
Nulandis: (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 10234:2008, Regulation EC 1272/2008 [EU-GHS/CLP]	
Hazard classes/Hazard categories	Hazard statement
Flammable solid (Category 2)	H228
Skin irritation (Category 2)	H315

For full text of H statements see section 16

The most important adverse effects

The most important adverse physiochemical effects: Flammable solid.

The most important adverse human health effects: Causes skin irritation.

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Label elements

Hazard pictograms:



Signal Word: Warning

Hazard Statements: H228 Flammable solid. H315 Causes skin irritation.

Precautionary Statements: P210 Keep away from heat/sparks/open flames/hot surfaces. No smoking P241 Use explosive- proof electrical/ventilating/lighting or other equipment if necessary or appropriate. P260 Avoid breathing dust. P264 Wash thoroughly after handling. P280 Wear protective gloves/eye protection. P302 +P332 IF ON SKIN wash with plenty of water. P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P332+ P313 If skin irritation occurs: Get medical advice. P337 + P313 If eye irritation persists: Get medical advice.

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
Sulphur (powder)	7704-34-9	90-100%	Flammable solid (Category 2) H228. Skin irritation (Category 2) H315.
	231-722-6		

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.

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.

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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.

In case of eye contact: In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Check for and remove any contact lenses. Get medical attention immediately. Do not use Boric Acid.

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.

Most important symptoms and effects, both acute and delayed:

Inhalation: None known.

Ingestions: None known.

Skin contact: Causes skin irritation and sensitization.

Eye contact: May cause eye irritation.

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 an extinguishing agent suitable for the surrounding fire, fine water spray, fog, dry chemical or CO₂, may use sand or solid sulphur powder.

LARGE FIRE: Fine water spray, fog, dry chemical or CO₂.

Unsuitable extinguishing media: Water jets or high-pressure water jets.

Special hazards arising from the mixture:

Slight fire hazard when exposed to heat or flame. Fine dust dispersed in air in sufficient concentration, and in the presence of an ignition source is a potential dust explosion. Burning sulphur evolves sulphur dioxide, breathing apparatus or gas masks approved for use in acid -gas atmosphere should be used. Fumes from unprotected sulphur fires shall be avoided, if possible, by approaching for the upwind side.

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. Hoses and extinguishers with pressure streams should be avoided where solid sulphur is dusty or where it may create a further hazard by raising more dust clouds. Use an extinguishing agent suitable for the surrounding fire.

SECTION 6. ACCIDENTAL RELEASE

Personal precautions, protective equipment and emergency procedures:

Use personal protective equipment. Avoid dust formation. Avoid breathing dust. Ensure adequate ventilation. Remove all sources of ignition. Evacuate personnel to safe areas.

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For non-emergency personnel: No action shall be taken involving any personal risk or without suitable training. Isolate area. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Avoid breathing dust. Provide adequate ventilation.

For emergency responders: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Avoid inhalation of dust. Refer to Section 7, Handling, for additional precautionary measures. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

Environmental precautions:

Stop leak if without risk. 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: Sweep up and shovel or vacuum up spillage with an electrically protected vacuum cleaner or by wet-brushing, collect in suitable container for disposal.

For large spills Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Shovel into disposal containers or cover with tarp. For landfill disposal, mix with limestone 3 times the weight of Sulphur.

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:

Stop source of spill as soon as possible and notify appropriate personnel. Utilize emergency response personal protection equipment prior to the start of any response. Evacuate all non-essential personnel. Dispose of spill residues per guidelines under Section 13, Disposal Consideration.

SECTION 7. HANDLING AND STORAGE

Precautions for safe handling:

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Workers should wash hands and face before eating, drinking and smoking. Avoid breathing dust and keep clothing as free from dust as possible, remove contaminated clothing and protective equipment before entering eating areas. Do not get in eyes or on skin.

Protective measures: Prevent formation of dust, keep away from ignition sources and ensure good ventilation/exhaust in working areas.

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. Solid becomes corrosive to metals when stored wet. Sulphur/bentonite fertilizer

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will physically break down when exposed to moisture or water. Hazardous in contact with oxidising material, forms explosive mixtures.

Specific end uses:

Use as directed. Use original container.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters:

Occupational exposure limits (OEL):

None

Biological exposure indices (BEI):

None

Exposure control:

Appropriate engineering controls: Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below level of overexposure (from known, suspected or apparent adverse effects). Dust type respirators shall be provided for dusty conditions.

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 tight safety glasses with rubber or plastic frames, may be helpful in dusty conditions. 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: Workers whose skin may be sensitive to sulphur dust should button collars, roll sleeves down, and gather trousers at the ankles. Fire retardant fabric is recommended.

Respiratory protection: Breathing apparatus must be available for emergency use in case of fire.

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): Powder.

Colour: Bright yellow.

Odour: Slight sulphur odour.

Odour threshold: No information available.

pH (at concentration): 7 (when dry for sulphur)

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Melting point/range (°C): 112 °C

Boiling point/range (°C): 444 °C (sulphur)

Flash point (°C): 188 °C

Evaporation rate: No information available.

Flammability (solid, gas): Flammable solid (Category 2) as it is a powder.

Upper/lower flammability/explosive limits: Dust in air: Lower 35 gm/cu meter, Upper 1400 gm/cu meter.

Vapour pressure (20°C): < 0.0001 mmHg (sulphur)

Vapour density: > 1 (sulphur)

Specific gravity (25°C): 2.07 g/mL (sulphur)

Water solubility: Insoluble.

n-Octanol/Water partition coefficient: No information available.

Auto-ignition temperature: 245°C

Decomposition temperature: No information available.

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

Physical hazards:

Explosive properties: Fine dust dispersed in air in sufficient concentration, and in the presence of an ignition source is a potential dust explosion hazard.

Other information:

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

Bulk density: No information available.

Dissociation constant in water (p Ka): insoluble.

Oxidation-reduction potential: No information available.

SECTION 10. STABILITY AND REACTIVITY

Reactivity:

Unstable.

Chemical stability:



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Stable under normal storage conditions for 2 years.

Possibility of hazardous reactions:

Polymerisation may occur.

Conditions to avoid:

Fire and dust explosions.

Incompatible materials:

Mixtures with chlorates, nitrates or other oxidizing agents may be explosive. Sulphur will react with alkalies or alkaline earths.

Hazardous decomposition products:

No information available.

SECTION 11. TOXICOLOGICAL INFORMATION

Toxicokinetics, metabolism and distribution:

Non-human toxicological data: No Information available.

Method: No Information available.

Dosage: No Information available.

Routes of administration: No Information available.

Results: No Information available.

Absorption: No Information available.

Distribution: No Information available.

Metabolism: No Information available.

Excretion: No Information available.

Information on toxicological effects:

Acute toxicity:

Sulphur

Acute oral LD₅₀ for rats > 5000 mg/kg

Inhalation LD₅₀ (4h) for rats > 5430 mg/m³

Dermal LD₅₀ for rats > 2000 mg/kg

Chronic toxicity: No information available.

Skin corrosion/irritation:

No skin irritation for rabbits.

Serious eye damage/irritation:

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No eye irritation for rabbits.

Respiratory or skin sensitization: No information available.

Germ cell mutagenicity: No information available.

Carcinogenicity: No component of this product present at levels greater than or equal to 0.1% is identified as probable, possible or confirmed human carcinogen by IARC.

Reproductive toxicity: No information available.

STOT-single exposure: No information available.

STOT-repeated exposure: No information available.

Aspiration hazard: No information available.

SECTION 12. ECOLOGICAL INFORMATION

Toxicity:

Sulphur

Birds: Acute oral LC₅₀ (8 d) for Bobwhite quail >5000 ppm.

Fish: Non-toxic to fish.

Toxicity to *daphnia* and other aquatic invertebrates: LC₅₀ (48 h, static) *Daphnia magna* (Water flea) > 665 mg/ ℓ.

Aquatic plants: EC₅₀ (72 h) *Ankistrodesmus bibaianus* >232 mg/ ℓ.

Bees: Non-toxic to bees.

Other beneficial spp.: Non-toxic to *Coccinella septempunctata*, *Amblyseius potentillae*, *Amblyseius finlandicus*, *Anthocoris nemorum* and *Chrysoperla carnea*.

Toxic to *Typhlodromus pyri*, *Trichogramma cacoeciae* and *Coccygomimus turionellae*.

Persistence and degradability:

No information available.

Bioaccumulative potential:

No information available.

Mobility in soil:

No information available.

Results of PBT& vPvB assessment:

No information available.

Other adverse effects:

No information available.

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SECTION 13. DISPOSAL CONSIDERATIONS

Waste treatment methods:

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

Product/ packaging disposal:

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

SECTION 14. TRANSPORT INFORMATION

	Land transport (ADR/RID)	Sea transport (IMDG)	Air transport (ICAO/IATA)
UN-Number	1350	1350	1350
UN Proper shipping name:	SULPHUR	SULPHUR	SULPHUR
Transport hazard class:	4.1	4.1	4.1
Packaging group:	III	III	III
Marine pollutant:	No	No	No
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: No 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 Substances.

ACGIH: American Conference of Governmental Industrial Hygienists (ACGIH)

Relevant information regarding restrictions:

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:

GHS aligned, updated GHS information.

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

H228 Flammable solid. H315 Causes skin irritation.

Training instructions:



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

Further information:

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.