VIRWITE POWDER (SERIES 300B)

Safety Data Sheet

According to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Revision Date: 05/03/15 Date of issue: 05/03/15 Version: 1.0

SECTION 1: IDENTIFICATION

Product Identifier

Product Form: Mixture

Product Name: VIRWITE POWDER (SERIES 300B)

Product Code: VIRWITE®; This MSDS applies to Chemtrade's VIRWITE® Powder (SERIES 300) Sodium Hydrosulfite products using a one or two letter prefix (A through Z) followed by a 3 digit numeric code (300 – 399) followed by the letter "B". For Example - VIRWITE® K-320B; VIRWITE® V-320B; or VIRWITE® AZ-399B

Synonyms: Sodium Dithionite; Hydro; Sodium Hydrosulfite Powder; Hydro Powder; Sodium Hydrosulfite Powders & Blends; Sodium Sulfoxylate; Dithionous Acid; Disodium Salt

Intended Use of the Product

Reducing agent

Name, Address, and Telephone of the Responsible Party

Manufacturer

CHEMTRADE LOGISTICS INC.
155 Gordon Baker Road
Suite 300
Toronto, Ontario M2H 3N5
For MSDS Info: (416) 496-5856
www.chemtradelogistics.com

Emergency Telephone Number

Emergency Number : Canada: CANUTEC +1-613-996-6666 / US: CHEMTREC +1-800-424-9300
Chemtrade Emergency Contact: (866) 416-4404
For Chemical Emergency, Spill, Leak, Fire, Exposure, or Accident, call CHEMTREC – Day or Night

SECTION 2: HAZARDS IDENTIFICATION

Classification of the Substance or Mixture

Classification (GHS-US)

Self-heat. 1	H251
Acute Tox. 4 (Oral)	H302
Skin Irrit. 2	H315
Eye Dam. 1	H318
Aquatic Chronic 3	H412

Label Elements

GHS-US Labeling

Hazard Pictograms (GHS-US) :

GHS02 GHS05 GHS07

Signal Word (GHS-US) : Danger

Hazard Statements (GHS-US) : H251 - Self-heating: may catch fire
H302 - Harmful if swallowed
H315 - Causes skin irritation
H318 - Causes serious eye damage
H412 - Harmful to aquatic life with long lasting effects

Precautionary Statements (GHS-US) : P235+P410 - Keep cool. Protect from sunlight.
P264 - Wash exposed areas. thoroughly after handling.
P270 - Do not eat, drink or smoke when using this product.
P273 - Avoid release to the environment.
P280 - Wear eye protection, protective clothing, protective gloves.
P301+P312 - If swallowed: Call a poison center/doctor if you feel unwell.
P302+P352 - 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.
P310 - Immediately call a poison center/doctor
P321 - Specific treatment (see Section 4).
P330 - Rinse mouth.
P332+P313 - If skin irritation occurs: Get medical advice/attention.
P362 - Take off contaminated clothing and wash before reuse.
P407 - Maintain air gap between stacks/pallets.
P413 - Store bulk masses at temperatures not exceeding 50°C
P420 - Store away from other materials.
P501 - Dispose of contents/container in accordance with local, regional, national, and international regulations.

Other Hazards

Other Hazards Not Contributing to the Classification: Not available

Unknown Acute Toxicity (GHS-US) Not available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixture

Name	Product identifier	% (w/w)	Classification (GHS-US)
Proprietary salt 2*	(CAS No.) Proprietary	60 - 95	Self-heat. 1, H251 Acute Tox. 4 (Oral), H302 Aquatic Acute 3, H402 Aquatic Chronic 3, H412
Proprietary salt 3*	(CAS No.) Proprietary	0.1 - 25	Eye Irrit. 2A, H319
Proprietary salt 1*	(CAS No.) Proprietary	0.1 - 10	Acute Tox. 4 (Oral), H302 Eye Dam. 1, H318 Aquatic Acute 3, H402

*An exemption was claimed under the Canadian Hazardous Materials Information Review Act. The registry number assigned to the claim is 8090. The exemption was granted January 31, 2012 for those ingredients indicated.

Full text of H-phrases: see section 16

SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible). IF exposed or concerned: Get medical advice/attention.

Inhalation: When symptoms occur: go into open air and ventilate suspected area.

Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Wash contaminated clothing before reuse. If skin irritation occurs: Get medical advice/attention.

Eye Contact: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON CENTER or doctor/physician.

Ingestion: Rinse mouth. Do NOT induce vomiting. Call a POISON CENTER/doctor/physician if you feel unwell.

Most Important Symptoms and Effects Both Acute and Delayed

General: Harmful if swallowed. Causes serious eye damage. Skin irritation.

Inhalation: Overexposure may be irritating to the respiratory system.

Skin Contact: Causes skin irritation.

Eye Contact: Causes serious eye damage.

Ingestion: Swallowing a small quantity of this material will result in serious health hazard.

Chronic Symptoms: Not available

Indication of Any Immediate Medical Attention and Special Treatment Needed

If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Use extinguishing media appropriate for surrounding fire. Water spray, fog (flooding amounts).

Unsuitable Extinguishing Media: Do not use water jet. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: Self-heating: may catch fire.

Explosion Hazard: Under extreme fire conditions in confined areas, large quantities of decomposing sodium hydrosulfite may produce elemental sulfur. Sulfur dust at high concentrations may create potential for explosion. If presence of sulfur dust is suspected, the recommended response is to gently apply a fog stream of water to avoid creation of a dust cloud.

Reactivity: Self-heating: may catch fire. Water reactive. Substances contained within this product may react with water producing large amounts of heat that could ignite combustible materials. Keep away from combustible materials, water, and follow applicable regulations.

Advice for Firefighters

Precautionary Measures Fire: Under fire conditions closed containers may rupture or explode.

Firefighting Instructions: Exercise caution when fighting any chemical fire.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.

Hazardous Combustion Products: Sulfur dioxide is major decomposition product. Approximately 0.15 lbs of sulfur dioxide is formed for each pound of Sodium Hydrosulfite that decomposes. Thermal decomposition products may also include hydrogen sulfide, sodium oxide, oxides of carbon and potentially sulfur.

Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Do not allow product to spread into the environment.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).

Emergency Procedures: Evacuate unnecessary personnel.

For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Ventilate area.

Environmental Precautions

Prevent entry to sewers and public waters. Avoid release to the environment.

Methods and Material for Containment and Cleaning Up

Methods for Cleaning Up: Clear up spills immediately and dispose of waste safely. Collect spillage.

Reference to Other Sections

See heading 8, Exposure Controls and Personal Protection.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Handling Temperature: Avoid sources of heat above 122 °F (50 °C).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking, or smoking and again when leaving work. Do no eat, drink or smoke when using this product. Wash hands and forearms thoroughly after handling. Always wash your hands immediately after handling this product, and once again before leaving the workplace.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Maintain air gap between stacks/pallets. Keep cool. Protect from sunlight.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Store away from other materials. Store bulk masses at temperatures not exceeding 50°C.

Incompatible Materials: Strong acids. Strong oxidizers.

Storage Temperature: < 50 °C (122 F) Keep material dry.

Storage Area: Store away from heat. Do not store near oxidizing agents or acidic material, combustible materials, extremely high temperatures or incompatible materials.

Specific End Use(s) Reducing agent

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

Proprietary salt 1		
USA ACGIH	ACGIH TWA (mg/m³)	5 mg/m³
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m³
Alberta	OEL TWA (mg/m³)	5 mg/m³
British Columbia	OEL TWA (mg/m³)	5 mg/m³
Manitoba	OEL TWA (mg/m³)	5 mg/m³
New Brunswick	OEL TWA (mg/m³)	5 mg/m³
Newfoundland & Labrador	OEL TWA (mg/m³)	5 mg/m³
Nova Scotia	OEL TWA (mg/m³)	5 mg/m³
Nunavut	OEL STEL (mg/m³)	10 mg/m³
Nunavut	OEL TWA (mg/m³)	5 mg/m³
Northwest Territories	OEL STEL (mg/m³)	10 mg/m³
Northwest Territories	OEL TWA (mg/m³)	5 mg/m³
Ontario	OEL TWA (mg/m³)	5 mg/m³
Prince Edward Island	OEL TWA (mg/m³)	5 mg/m³
Québec	VEMP (mg/m³)	5 mg/m³
Saskatchewan	OEL STEL (mg/m³)	10 mg/m³
Saskatchewan	OEL TWA (mg/m³)	5 mg/m³

Exposure Controls

Appropriate Engineering Controls: Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Local exhaust and general ventilation must be adequate to meet exposure standards. Site-specific risk assessments should be conducted to determine the appropriate exposure control measures. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

Personal Protective Equipment: Face shield. Gloves. Protective goggles. Protective clothing. Combined gas/dust mask with filter type P3.

Materials for Protective Clothing: Chemically resistant materials and fabrics.

Hand Protection: Wear chemically resistant protective gloves.

Eye Protection: Chemical safety goggles. A full face shield is recommended.

Skin and Body Protection: Wear suitable protective clothing.

Respiratory Protection: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. Wear approved mask.

Other Information: When using, do not eat, drink or smoke.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

Physical State	:	Solid
Appearance	:	Powder,White,free flowing
Odor	:	Slight sulfur like odor
Odor Threshold	:	Not available
pH	:	6 - 10 [1% by weight solution at 68 °F (20 °C)]
Melting Point	:	300 °C (572°F) Decomposes before reaching melting point (572.00 °F)
Freezing Point	:	Not available
Boiling Point	:	Not available
Flash Point	:	Not available
Auto-ignition Temperature	:	250 °C (482°F) for sodium hydrosulfite powder (482.00 °F)

Decomposition Temperature	:	70 - 151 °C (158 - 304°F) for sodium hydrosulfite powder (158.0 - 303.8 °F)
Flammability (solid, gas)	:	Not available
Lower Flammable Limit	:	Not available
Upper Flammable Limit	:	Not available
Vapor Pressure	:	Not available
Relative Vapor Density at 20 °C	:	Not available
Relative Density	:	Not available
Specific gravity / density	:	55 - 65 lb/ft3
Specific Gravity	:	Not available
Solubility	:	Water: 18 % @ 70 °F (21 °C)
Partition Coefficient: N-octanol/water	:	< -2.75 - -4.7 Log Pow (estimated) – for sodium hydrosulfite
Viscosity	:	Not available
Explosion Data – Sensitivity to Mechanical Impact	:	Not expected to present an explosion hazard due to mechanical impact.
Explosion Data – Sensitivity to Static Discharge	:	Not expected to present an explosion hazard due to static discharge.

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Self-heating: may catch fire. Water reactive. Substances contained within this product may react with water producing large amounts of heat that could ignite combustible materials. Keep away from combustible materials, water, and follow applicable regulations.

Chemical Stability: Self-heating: may catch fire.

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Sparks, heat, open flame and other sources of ignition. Protect from moisture. Direct sunlight. Extremely high or low temperatures. Heat.

Incompatible Materials: Strong oxidizers. Strong acid. Peroxides. Water. In contact with air, mixing sodium hydrosulfite solutions with polysulfide or sulfide containing products may liberate potentially lethal Hydrogen Sulfide gas.

Hazardous Decomposition Products: On heating: release of toxic and corrosive gases/vapors sulphur oxides.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Harmful if swallowed.

LD50 and LC50 Data:

VIRWITE POWDER (SERIES 300B)	
ATE US (oral)	500.00 mg/kg body weight

Skin Corrosion/Irritation: Causes skin irritation.

pH: 6 - 10 [1% by weight solution at 68 °F (20 °C)]

Serious Eye Damage/Irritation: Causes serious eye damage.

pH: 6 - 10 [1% by weight solution at 68 °F (20 °C)]

Respiratory or Skin Sensitization: Not classified

Germ Cell Mutagenicity: Not classified

Teratogenicity: Not available

Carcinogenicity: Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Aspiration Hazard: Not classified

Potential Adverse Human Health Effects and Symptoms: Harmful if swallowed.

Symptoms/Injuries After Inhalation: Overexposure may be irritating to the respiratory system.

Symptoms/Injuries After Skin Contact: Causes skin irritation.

Symptoms/Injuries After Eye Contact: Causes serious eye damage.

Symptoms/Injuries After Ingestion: Swallowing a small quantity of this material will result in serious health hazard.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

Proprietary salt 1	
LD50 Oral Rat	1310 mg/kg
ATE US (oral)	1131.000 mg/kg

Proprietary salt 3	
LD50 Oral Rat	4090 mg/kg
LC50 Inhalation Rat (mg/l)	2300 mg/m³ (Exposure time: 2 h)

Proprietary salt 2	
LD50 Oral Rat	2500 mg/kg
LD50 Dermal Rat	> 2000

Proprietary salt 1	
IARC Group	3

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecology - General: Harmful to aquatic life with long lasting effects.

Proprietary salt 1	
LC50 Fish 1	32 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Proprietary salt 3	
LC50 Fish 1	300 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])
EC50 Daphnia 1	265 mg/l (Exposure time: 48 h - Species: Daphnia magna)
LC 50 Fish 2	310 - 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Proprietary salt 2	
LC50 Fish 1	62.3 mg/l (Species :Leuciscus idus)
EC50 Daphnia 1	98 mg/l (Exposure time: 48 h - Species: Daphnia magna Straus)

Persistence and Degradability

VIRWITE POWDER (SERIES 300B)	
Persistence and Degradability	Not established. May cause long-term adverse effects in the environment.

Bioaccumulative Potential

VIRWITE POWDER (SERIES 300B)	
Bioaccumulative Potential	Not established.

Proprietary salt 1	
Log Pow	-3.7 (at 25 °C)

Proprietary salt 3	
BCF Fish 1	(no bioaccumulation)

Mobility in Soil Not available

Other Adverse Effects

Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, provincial, territorial and international regulations.

Additional Information: Handle empty containers with care because residual vapors are flammable.

Ecology – Waste Materials: This material is hazardous to the aquatic environment. Keep out of sewers and waterways.

SECTION 14: TRANSPORT INFORMATION

14.1 In Accordance with DOT

Proper Shipping Name : SODIUM HYDROSULFITE

Hazard Class : 4.2

Identification Number : UN1384

Label Codes : 4.2

Packing Group : II

ERG Number : 135

14.2 In Accordance with IMDG

Proper Shipping Name : SODIUM DITHIONITE (SODIUM HYDROSULPHITE)

Hazard Class : 4.2

Identification Number : UN1384

Packing Group : II

Label Codes : 4.2

EmS-No. (Fire) : F-A

EmS-No. (Spillage) : S-J

14.3 In Accordance with IATA

Proper Shipping Name : SODIUM HYDROSULPHITE

Packing Group : II

Identification Number : UN1384

Hazard Class : 4

Label Codes : 4.2

ERG Code (IATA) : 4L

14.4 In Accordance with TDG

Proper Shipping Name : SODIUM HYDROSULPHITE

Packing Group : II

Hazard Class : 4.2

Identification Number : UN1384

Label Codes : 4.2

SECTION 15: REGULATORY INFORMATION

US Federal Regulations

VIRWITE POWDER (SERIES 300B)	
SARA Section 311/312 Hazard Classes	Fire hazard Immediate (acute) health hazard Reactive hazard

Proprietary salt 1
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary salt 3
Listed on the United States TSCA (Toxic Substances Control Act) inventory

Proprietary salt 2
Listed on the United States TSCA (Toxic Substances Control Act) inventory

US State Regulations

VIRWITE POWDER (SERIES 300B)()

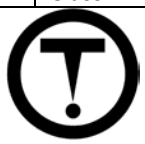
Proprietary salt 1
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

Proprietary salt 2
U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List U.S. - Pennsylvania - RTK (Right to Know) List

Canadian Regulations

VIRWITE POWDER (SERIES 300B)

WHMIS Classification	Class B Division 6 - Reactive Flammable Material Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class F - Dangerously Reactive Material


Proprietary salt 1	
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Uncontrolled product according to WHMIS classification criteria

Proprietary salt 3	
Listed on the Canadian DSL (Domestic Substances List) Listed on the Canadian IDL (Ingredient Disclosure List)	
IDL Concentration 1 %	
WHMIS Classification	Class D Division 2 Subdivision B - Toxic material causing other toxic effects Class E - Corrosive Material

Proprietary salt 2	
Listed on the Canadian DSL (Domestic Substances List)	
WHMIS Classification	Class B Division 6 - Reactive Flammable Material Class F - Dangerously Reactive Material

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION

Revision date : 05/03/2015

Other Information : This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

GHS Full Text Phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Aquatic Chronic 3	Hazardous to the aquatic environment - Chronic Hazard Category 3
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Eye Irrit. 2A	Serious eye damage/eye irritation Category 2A
Self-heat. 1	Self-heating substances and mixtures Category 1
Skin Irrit. 2	Skin corrosion/irritation Category 2
H251	Self-heating: may catch fire
H302	Harmful if swallowed
H315	Causes skin irritation
H318	Causes serious eye damage
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

Party Responsible for the Preparation of This Document

CHEMTRADE LOGISTICS, INC.

For SDS Info: (416) 496-5856

Handle product with due care and avoid unnecessary contact. This information is supplied under U.S. OSHA'S "Right to Know" (29 CFR 1910.1200) and Canada's WHMIS regulations. Although certain hazards are described herein, we cannot guarantee these are the only hazards that exist. The information contained herein is based on data available to us and is believed to be true and accurate but it is not offered as a product specification. No warranty, expressed or implied, regarding the accuracy of this data, the hazards connected with the use of the product, or the results to be obtained from the use thereof, is made and Chemtrade and its affiliates assume no responsibility. Chemtrade is a member of the CIAC (Chemistry Industry Association of Canada) and adheres to the codes and principles of Responsible Care™.

Chemtrade North America SDS Template