

Safety Data Sheet

According To Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules And Regulations And According To The Hazardous Products Regulation (February 11, 2015). Revision Date: 01/04/2019 Date of Issue: 05/03/2015 Version: 4.0

SECTION 1: IDENTIFICATION

1.1. Product Identifier

Product Form: Mixture

Product Name: VIRWITE POWDER (SERIES 400)

Product Code: VIRWITE[®]; This MSDS applies to Chemtrade's VIRWITE[®] Powder (SERIES 400) Sodium Hydrosulfite products using a one or two letter prefix (A through Z) followed by a 3 digit numeric code (100 – 199).

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

1.2. Intended Use of the Product

Use of the Substance/Mixture: Reducing Agent.

1.3. Name, Address, and Telephone of the Responsible Party

Manufacturer

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

1.4. 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

2.1. Classification of the	he Substance or Mixture
GHS-Classification	
Self-heat. 1	H251
Acute Tox. 4 (Oral)	H302
Eye Dam. 1	H318
Aquatic Acute 3	H402
Aquatic Chronic 3	H412
Full text of hazard classes an	nd H-statements : see section 16
2.2. Label Elements	
GHS-US Labeling	
Hazard Pictograms	
-	
Circuit Mand	GHS02 GHS05 GHS07
Signal Word Hazard Statements	: Danger
Hazard Statements	: H251 - Self-heating: may catch fire. H302 - Harmful if swallowed.
	H318 - Causes serious eye damage.
	H402 - Harmful to aquatic life.
	H412 - Harmful to aquatic life with long lasting effects.
Precautionary Statements	
Treadtionary Statements	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, and protective gloves.
	P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
	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 or doctor.
	P330 - Rinse mouth.

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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.

2.3. Other Hazards

Exposure may aggravate pre-existing eye, skin, or respiratory conditions.

2.4. Unknown Acute Toxicity (GHS-US)

No data available

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixture

Name	Product Identifier	%	GHS-US classification		
Sodium dithionite*	(CAS-No.) 7775-14-6	60 - 95	Self-heat. 1, H251 Aquatic Acute 3, H402 Aquatic Chronic 3, H412 Comb. Dust		
Sodium sulfur salt 1S*	(CAS-No.) Proprietary	0 - 25	Eye Irrit. 2A, H319		
Carbonate salt*	(CAS-No.) Proprietary	0 - 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 9980. The filing date for the exemption was April 29, 2016 for those ingredients indicated.

The specific chemical identity and/or exact percentage of composition have been withheld as a trade secret [29 CFR 1910.1200]. Full text of H-phrases: see section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of First-aid Measures

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).

First-aid Measures After Inhalation: When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists.

First-aid Measures After Skin Contact: Remove contaminated clothing. Drench affected area with water for at least 15 minutes. Obtain medical attention if irritation develops or persists.

First-aid Measures After Eye Contact: Rinse cautiously with water for at least 30 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get immediate medical advice/attention.

First-aid Measures After Ingestion: Rinse mouth. Do NOT induce vomiting. Obtain medical attention.

4.2. Most Important Symptoms and Effects Both Acute and Delayed

Symptoms/Injuries: Harmful if swallowed. Causes serious eye damage. In contact with water, releases gases which are toxic if inhaled (sulfur dioxide).

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation. In contact with water, releases gases which are toxic if inhaled (sulfur dioxide).

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts.

Chronic Symptoms: None expected under normal conditions of use.

4.3. Indication of Any Immediate Medical Attention and Special Treatment Needed

If exposed or concerned, get medical advice and attention. If medical advice is needed, have product container or label at hand.

SECTION 5: FIRE-FIGHTING MEASURES

5.1. Extinguishing Media

Suitable Extinguishing Media: Water spray, dry chemical, foam, carbon dioxide.

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

5.2. Special Hazards Arising From the Substance or Mixture

Fire Hazard: Self-heating: may catch fire.

Explosion Hazard: Product is not explosive.

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Reactivity: Hazardous reactions will not occur under normal conditions.

5.3. Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection. **Hazardous Combustion Products:** Sulfur oxides, carbon oxides (CO, CO₂). May liberate toxic gases.

Other Information: Do not allow run-off from fire fighting to enter drains or water courses.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Keep away from heat, hot surfaces, sparks, open flames, and other ignition sources. No smoking. Do not breathe dust. Do not get in eyes, on skin, or on clothing.

6.1.1. For Non-Emergency Personnel

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

Emergency Procedures: Evacuate unnecessary personnel.

6.1.2. For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit. Ventilate area.

6.2. Environmental Precautions

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

6.3. Methods and Materials for Containment and Cleaning Up

For Containment: Contain solid spills with appropriate barriers and prevent migration and entry into sewers or streams. Use only non-sparking tools.

Methods for Cleaning Up: Clean up spills immediately and dispose of waste safely. Recover the product by vacuuming, shoveling or sweeping. Transfer spilled material to a suitable container for disposal. Contact competent authorities after a spill.

6.4. Reference to Other Sections

See Section 8 for exposure controls and personal protection and Section 13 for disposal considerations.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for Safe Handling

Additional Hazards When Processed: Dust may form a combustible dust hazard in air. Liberates toxic sulfur oxides gas when in contact with water. Catches fire spontaneously if exposed to air.

Precautions for Safe Handling: Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Avoid breathing dust. Keep away from heat, sparks, open flames, and hot surfaces. No smoking. Handle empty containers with care because they may still present a hazard. Do not get in eyes, on skin, or on clothing. **Handling Temperature:** Avoid sources of heat above 122 °F (50 °C).

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures.

7.2. Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Maintain air gap between stacks/pallets. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Keep container closed when not in use. Store in a dry, cool place. Keep/Store away from direct sunlight, extremely high or low temperatures and incompatible materials.

Incompatible Products: Water, moisture, acids, bases, oxidizers, combustibles, flammable materials.

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

7.3. Specific End Use(s)

Reducing Agent.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. 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), AIHA (WEEL), NIOSH (REL), or OSHA (PEL).

Carbonate salt				
USA ACGIH	ACGIH TWA (mg/m ³)	5 mg/m ³		
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen		
USA NIOSH	NIOSH REL (TWA) (mg/m ³)	5 mg/m ³		

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Sulfur dioxide (7446-09-5) * Becomes liberated when in contact with water.			
USA ACGIH	ACGIH STEL (ppm)	0.25 ppm	
USA ACGIH	ACGIH chemical category	Not Classifiable as a Human Carcinogen	
USA NIOSH	NIOSH REL (TWA) (mg/m³)	5 mg/m ³	
USA NIOSH	NIOSH REL (TWA) (ppm)	2 ppm	
USA NIOSH	NIOSH REL (STEL) (mg/m ³)	13 mg/m³	
USA NIOSH	NIOSH REL (STEL) (ppm)	5 ppm	
USA IDLH	US IDLH (ppm)	100 ppm	
USA OSHA	OSHA PEL (TWA) (mg/m³)	13 mg/m³	
USA OSHA	OSHA PEL (TWA) (ppm)	5 ppm	

8.2. Exposure Controls

Appropriate Engineering Controls

Personal Protective Equipment

Materials for Protective Clothing

Hand Protection

Skin and Body Protection

Respiratory Protection

Other Information

Eye Protection

- : Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation, especially in confined areas. Ensure all national/local regulations are observed. Proper grounding procedures to avoid static electricity should be followed.
- : Gloves. Protective clothing. Protective goggles. Insufficient ventilation: wear respiratory protection.



- : Chemically resistant materials and fabrics. Wear fire/flame resistant/retardant clothing.
- : Wear protective gloves.
- : Chemical safety goggles.
- : Wear suitable protective clothing.
- : If exposure limits are exceeded or irritation is experienced, approved respiratory protection should be worn. In case of inadequate ventilation, oxygen deficient atmosphere, or where exposure levels are not known wear approved respiratory protection.

:	When	using,	do	not	eat,	drink	or	smoke.	
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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on Basic Physical and Che	emical Properties
Physical State	: Solid
Appearance	: Powder, white, free-flowing
Odor	: Slight sulfur-like odor
Odor Threshold	: No data available
рН	: 6 - 10 [1% by weight solution at 68 °F (20 °C)]
Evaporation Rate	: No data available
Melting Point	: 300 °C (572°F) decomposes before reaching melting point
Freezing Point	: No data available
Boiling Point	: No data available
Flash Point	: No data available
Auto-ignition Temperature	: 250 °C (482°F) for sodium hydrosulfite powder
Decomposition Temperature	: 70 - 151 °C (158 - 304°F) for sodium hydrosulfite powder
Flammability (solid, gas)	: No data available
Vapor Pressure	: No data available
Relative Vapor Density at 20°C	: No data available
Relative Density	: No data available
Density	: 55 - 65 lb/ft ³
Solubility	: Water: 18 % @ 70 °F (21 °C)
Partition Coefficient: N-Octanol/Water	: < -2.754.7 Log Pow (estimated) – for sodium hydrosulfite
Viscosity	: No data available

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9.2. Other Information

No additional information available

SECTION 10: STABILITY AND REACTIVITY

- **10.1. Reactivity:** Hazardous reactions will not occur under normal conditions.
- 10.2. Chemical Stability: Self-heating: may catch fire.
- **10.3. Possibility of Hazardous Reactions:** Hazardous polymerization will not occur.
- 10.4. Conditions to Avoid: Direct sunlight, extremely high or low temperatures, and incompatible materials.
- 10.5. Incompatible Materials: Water, moisture, acids, bases, oxidizers, combustibles, flammable materials.

10.6. Hazardous Decomposition Products: In contact with water: liberates sulfur oxides. Sulfur oxides are toxic.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on Toxicological Effects

Acute Toxicity: Oral: Harmful if swallowed.

VIRWITE POWDER (SERIES 400)	
ATE (Oral)	1,932.51 mg/kg body weight
Carbonate salt	
LD50 Oral Rat	1310 mg/kg
Sodium sulfur salt 1S	
LD50 Oral Rat	4090 mg/kg
LC50 Inhalation Rat	2300 mg/m ³ (Exposure time: 2 h)
Sodium dithionite	
LD50 Oral Rat	2500 mg/kg
LD50 Dermal Rat	> 2000
LC50 Inhalation Rat	> 5.5 mg/l/4h
Sulfur dioxide (7446-09-5) * Becomes liberated wh	en in contact with water.
LC50 Inhalation Rat	2500 ppm/1h
ATE (Gases)	1,250.00 ppmV/4h

Skin Corrosion/Irritation: Not classified

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

Carcinogenicity: Not classified

Carbonate salt	
IARC group	3

Sulfur dioxide (7446-09-5) * Becomes liberated when in contact with water.

IARC group

Reproductive Toxicity: Not classified

Specific Target Organ Toxicity (Single Exposure): Not classified

Specific Target Organ Toxicity (Repeated Exposure): Not classified

Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Prolonged exposure may cause irritation. In contact with water, releases gases which are toxic if inhaled (sulfur dioxide).

Symptoms/Injuries After Skin Contact: Prolonged exposure may cause skin irritation.

Symptoms/Injuries After Eye Contact: Causes permanent damage to the cornea, iris, or conjunctiva.

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Symptoms/Injuries After Ingestion: This material is harmful orally and can cause adverse health effects or death in significant amounts.

Chronic Symptoms: None expected under normal conditions of use.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Ecology - General

: Harmful to aquatic life with long lasting effects. Harmful to aquatic life.

32 mg/l (Exposure time: 96 h - Species: Lepomis macrochirus [static])

Carbonate salt LC50 Fish 1 _____

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According to Federal Register / Vol. 77, No. 5	8 / Monday, March 26, 2012 / Rules and Regulations And According To The Hazardous Products Regulation (February 11, 2015).
EC50 Daphnia 1	88.76 mg/l
Sodium sulfur salt 1S	
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)
LC50 Fish 2	310 - 1220 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])
Sodium dithionite	
LC50 Fish 1	62.3 mg/l (Species :Leuciscus idus)
EC50 Daphnia 1	98 mg/l (Exposure time: 48 h - Species: Daphnia magna Straus)
12.2. Persistence and De	
VIRWITE POWDER (SERIES 4	
Persistence and Degradabilit	
12.3. Bioaccumulative P	
VIRWITE POWDER (SERIES 4	•
Bioaccumulative Potential	Not established.
Carbonate salt	
Log Pow	-3.7 (at 25 °C)
Sodium sulfur salt 1S	
BCF Fish 1	(no bioaccumulation)
12.4. Mobility in Soil	
No additional information ava	ilable
12.5. Other Adverse Eff	
Other Information	: Avoid release to the environment.
SECTION 13: DISPOSAL CO	
13.1. Waste Treatment	
-	lations: Dispose of contents/container in accordance with local, regional, national, and international
regulations.	atainer may remain hazardays when empty. Continue to ebsenze all processions
	ntainer may remain hazardous when empty. Continue to observe all precautions. Avoid release to the environment. This material is hazardous to the aquatic environment. Keep out
of sewers and waterways.	Avoid release to the environment. This material is hazardous to the aquatic environment. Reep out
SECTION 14: TRANSPORT	
14.1. In Accordance with D	
	: SODIUM HYDROSULFITE
Proper Shipping Name Hazard Class	: 4.2
Identification Number	: 4.2 : UN1384
Label Codes	: 4.2
	\bullet
Packing Group	:
ERG Number	: 135
14.2. In Accordance wit	······································
Proper Shipping Name	: SODIUM DITHIONITE (SODIUM HYDROSULPHITE)
Hazard Class Identification Number	: 4.2 : UN1384
	: UN1384 : II
Packing Group Label Codes	: 11
EmS-No. (Fire)	: 4.2 : F-A
EmS-No. (Spillage)	: S-J
	▼
14.3. In Accordance wit	
Proper Shipping Name	: SODIUM HYDROSULPHITE
Packing Group	:
Identification Number	: UN1384
Hazard Class	
Label Codes	: 4.2
Division	: 4.2
ERG Code (IATA)	: 4L

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IRWITE POWDER (SERIES 400)		
SARA Section 311/312 Hazard Classes	Fire hazard	
	Immediate (acute) health hazard	
Carbonate salt		
Listed on the United States TSCA (Toxic Substan	ces Control Act) inventory	
Sodium sulfur salt 1S		
Listed on the United States TSCA (Toxic Substan	ces Control Act) inventory	
Sodium dithionite		
Listed on the United States TSCA (Toxic Substan	ces Control Act) inventory	
15.2. US State Regulations		
Carbonate salt		
U.S Massachusetts - Right To Know List		
U.S New Jersey - Right to Know Hazardous Sub	ostance List	
U.S Pennsylvania - RTK (Right to Know) List		
Sodium dithionite		
U.S Massachusetts - Right To Know List		
U.S New Jersey - Right to Know Hazardous Sub U.S Pennsylvania - RTK (Right to Know) List	ostance List	
Canadian Regulations		
VIRWITE POWDER (SERIES 300B)		
Sodium Dithionite		
Listed on the Canadian DSL (Domestic Substance	es List)	
Sodium Sulfur Salt 1S	· · ·	
Listed on the Canadian DSL (Domestic Substance	es List)	
Carbonate Salt		
Listed on the Canadian DSL (Domestic Substance	es List)	

Date of Preparation of Latest Revision	: 01/04/2019
Revisions	: Section 3, 14
Other Information	: This document has been prepared in accordance with the SDS
	requirements of the OSHA Hazard Communication Standard 29 CFR
	1910.1200 and according to the Hazardous Products Regulation
	(February 11, 2015).

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
Comb. Dust	Combustible Dust
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
H251	Self-heating: may catch fire
H302	Harmful if swallowed
H318	Causes serious eye damage
H319	Causes serious eye irritation
H402	Harmful to aquatic life
H412	Harmful to aquatic life with long lasting effects

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NFPA Health Hazard	: 3 - Materials that, under emergency conditions, can cause serious or permanent injury.
NFPA Fire Hazard	: 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
NFPA Reactivity Hazard	: 1 - Materials that in themselves are normally stable but can become unstable at elevated temperatures and pressures.
Hazard Rating	
Health	: 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given
Flammability	: 3 Serious Hazard
Physical	: 1 Slight Hazard

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) regulations Canadian Hazard Product 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^M.