

SDS ID No.: AMNS-0009

## Safety Data Sheet (SDS)

### Section 1 – Identification

**1(a) Product Identifier Used on Label:** WWTP Sludge

**1(b) Other Means of Identification:** Wastewater treatment plant process sludge, Filter cake, AMNS-0009

**1(c) Recommended Use of the Chemical and Restrictions on Use:** None

**1(d) Name, Address, and Telephone Number:**

AM/NS Calvert LLC

Phone number: 251-289-3000

P.O. Box 456


Calvert, AL 36513

**1(e) Emergency Phone Number:** CHEMTREC (Day or Night) 1-800-424-9300 or 1-760-476-3962, (Verisk 3E Company Code: 333211)

### Section 2 – Hazard(s) Identification

**2(a) Classification of the Chemical:** WWTP Sludge is not considered a hazardous material according to the criteria specified in REACH [REGULATION (EC) No 1907/2006] and CLP [REGULATION (EC) No 1272/2008] but is considered hazardous OSHA 29 CFR 1910.1200 Hazard Communication Standard. The categories of Health Hazards as defined in “GLOBALLY HARMONIZED SYSTEM OF CLASSIFICATION AND LABELLING OF CHEMICALS (GHS), Third revised edition ST/SG/AC.10/30/Rev. 3” United Nations, New York and Geneva, 2009 have been evaluated. Refer to Section 3, 8 and 11 for additional information.

**2(b) Signal Word, Hazard Statement(s), Symbols and Precautionary Statement(s):**

Hazard Symbol	Hazard Classification	Signal Word	Hazard Statement(s)
	Carcinogenicity - 1A Single Target Organ Toxicity (STOT) Single Exposure - 2	<b>DANGER</b>	May cause cancer. Causes damage to lungs through prolonged or repeated exposure.

**Precautionary Statement(s):**

Prevention	Response	Storage/Disposal
Do not breathe dusts, mists or sprays. Wear protective gloves/protective clothing/eye protection/face protection. Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood.	If exposed, concerned: Get medical advice/attention. Call a poison center or doctor/physician.	Dispose of contents in accordance with federal, state and local regulations. Store locked up.

**2(c) Hazards not Otherwise Classified:** None Known

**2(d) Unknown Acute Toxicity Statement (Mixture):** None Known

### Section 3 – Composition/Information on Ingredients

**3(a-c) Chemical Name, Common Name (Synonyms), CAS Number and Other Identifiers, and Concentration:**

Chemical Name	CAS Number	EC Number	% weight
Slimes and Sludges, blast furnace and steelmaking	65996-73-8	266-006-2	100%
<b>Slimes and Sludges, blast furnace and steelmaking:</b> The wetted particulate matter recovered by wet collection techniques, including pollution abatement equipment, for the recovery of materials such as iron sinter dust, blast furnace dust, steelmaking dust, and mill scale.			
The following components were used for hazard determination when toxicological data was not available for the mixture as a whole:			
Iron and Iron Oxides	7439-89-6 1345-25-1 1309-37-1	231-096-4 215-721-8 215-168-2	20-80
Calcium Oxide and calcium compounds	1305-78-8	215-138-9	0-15
Silica and Silicon compounds, including Crystalline Silica (as Quartz)	60676-86-0 14808-60-7	262-373-8 238-878-4	0-10

EC- European Community

CAS- Chemical Abstract Service

## Section 4 – First-aid Measures

### 4(a) Description of Necessary Measures:

- **Inhalation:** If exposed, concerned or feel unwell: Get medical advice/attention, call a poison center or doctor/physician.
- **Eye Contact:** If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **Skin Contact:** Rinse skin with water/shower.
- **Ingestion:** If swallowed: Rinse mouth.

### 4(b) Most Important Symptoms/Effects, Acute and Delayed (Chronic):

#### Acute effects:

- **Inhalation:** Excessive exposure to high concentrations may cause irritation to the mucous membranes of the upper respiratory tract.
- **Eye:** Excessive exposure to high concentrations may cause irritation to the eyes.
- **Skin:** Skin contact may cause irritation or dermatitis.
- **Ingestion:** Ingestion may cause nausea and/or vomiting.

#### Chronic Effects:

Individuals with chronic respiratory disorders (i.e., asthma, chronic bronchitis, emphysema, etc.) may be adversely affected by any airborne particulate matter exposure. Persons with pre-existing skin disorders may be more susceptible to dermatitis.

### 4(c) Immediate Medical Attention and Special Treatment: Treat symptomatically.

## Section 5 – Fire-fighting Measures

**5(a) Suitable (and Unsuitable) Extinguishing Media:** Steam, water fog, CO<sub>2</sub>, foam, dry chemicals or sand. Small fires – Foam, CO<sub>2</sub>, Dry Chemical, Water Spray. Large Fires – Water Spray, fog or foam.

**5(b) Specific Hazards Arising from the Chemical:** Incompatibility (materials to avoid) heat, and flames. When burned, toxic smoke and vapor may be emitted including, oxides of carbon, metal oxides and other toxic vapors.

**5(c) Special Protective Equipment and Precautions for Fire-fighters:** Self-contained NIOSH approved respiratory protection and full protective clothing should be worn when fumes and/or smoke from fire are present. Heat and flames cause emittance of acrid smoke and fumes. Do not release runoff from fire control methods to sewers or waterways. Firefighters should wear full face-piece self-contained breathing apparatus and chemical protective clothing with thermal protection. Direct water stream will scatter and spread flames and, therefore, should not be used.

## Section 6 - Accidental Release Measures

**6(a) Personal Precautions, Protective Equipment and Emergency Procedures:** Clean-up personnel should be protected against contact with eyes and skin. If material is in a dry state, avoid inhalation of dust. Personnel should be protected against contact with eyes and skin. Fine, dry material should be removed by vacuuming or wet sweeping methods to prevent spreading of dust. Avoid using compressed air. Do not release into sewers or waterways.

**6(b) Methods and Materials for Containment and Clean Up:** Collect material in appropriate, labeled containers for recovery or disposal in accordance with federal, state, and local regulations. Follow applicable OSHA regulations (29 CFR 1910.120) and all other pertinent state and federal requirements.

## Section 7 - Handling and Storage

**7(a) Precautions for Safe Handling:** Do not eat, drink or smoke when using this product. Wash thoroughly after handling. Do not breathe dusts, mists or sprays. Wear protective gloves / protective clothing / eye protection / face protection. Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Emergency safety showers and eye wash stations should be present.

**7(b) Conditions for Safe Storage, including any Incompatibilities:** Whenever feasible, store locked up.

## Section 8 - Exposure Controls / Personal Protection

**8(a) Occupational Exposure Limits (OELs):** The following exposure limits are offered as reference, for an experience industrial hygienist to review.

Ingredients	OSHA PEL <sup>1</sup>	ACGIH TLV <sup>2</sup>	NIOSH REL <sup>3</sup>	IDLH <sup>4</sup>
Iron and Iron Oxides	10 mg/m <sup>3</sup> (iron oxide fume)	5.0 mg/m <sup>3</sup> (iron oxide, respirable fraction <sup>5</sup> )	5.0 mg/m <sup>3</sup> (iron oxide dust and fume)	2,500 mg/m <sup>3</sup> (as Fe)
Calcium Oxide	5.0 mg/m <sup>3</sup> (as calcium oxide)	2.0 mg/m <sup>3</sup> (as calcium oxide)	2.0 mg/m <sup>3</sup> (as calcium oxide)	25 mg/m <sup>3</sup> (as calcium oxide)
Crystalline Silica (as Quartz)	0.05 mg/m <sup>3</sup> “AL” 0.025 mg/m <sup>3</sup>	0.025 mg/m <sup>3</sup> (as respirable fraction)	0.05 mg/m <sup>3</sup> (as respirable dust), Ca	50 mg/m <sup>3</sup> (as quartz, tripoli) 25 mg/m <sup>3</sup> (as cristobalite, tridymite), Ca
Silica, Fused	80 mg/m <sup>3</sup> / % SiO <sub>2</sub> (as SiO <sub>2</sub> )	NE	NE	NE

NE - None Established

## Section 8 - Exposure Controls / Personal Protection (continued)

### 8(a) Occupational Exposure Limits (OELs) (continued):

1. OSHA PELs (Permissible Exposure Limits) are 8-hour TWA (time-weighted average) concentrations unless otherwise noted. A ("C") designation denotes a ceiling limit, which should not be exceeded during any part of the working exposure unless otherwise noted. A Short Term Exposure Limit (STEL) is defined as a 15-minute exposure, which should not be exceeded at any time during a workday. An Action level (AL) is used by OSHA and NIOSH to express a health or physical hazard. They indicate the level of a harmful or toxic substance/activity, which requires medical surveillance, increased industrial hygiene monitoring, or biological monitoring. Action Levels are generally set at one half of the PEL but the actual level may vary from standard to standard. The intent is to identify a level at which the vast majority of randomly sampled exposures will be below the PEL.
2. Threshold Limit Values (TLV) established by the American Conference of Governmental Industrial Hygienists (ACGIH) are 8-hour TWA concentrations unless otherwise noted. ACGIH TLVs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes. DSEN – May cause dermal sensitization. This notation is used to indicate the potential for dermal sensitization resulting from the interaction of an absorbed agent and ultraviolet light (i.e. photosensitization). RSEN – May cause respiratory sensitization.
3. The National Institute for Occupational Safety and Health Recommended Exposure Limits (NIOSH-REL)- Compendium of Policy and Statements. NIOSH, Cincinnati, OH (1992). NIOSH is the federal agency designated to conduct research relative to occupational safety and health. As is the case with ACGIH TLVs, NIOSH RELs are for guideline purposes only and as such are not legal, regulatory limits for compliance purposes.
4. The "immediately dangerous to life or health air concentration values (IDLHs)" are used by NIOSH as part of the respirator selection criteria and were first developed in the mid-1970's by NIOSH. The Documentation for Immediately Dangerous to Life or Health Concentrations (IDLHs) is a compilation of the rationale and sources of information used by NIOSH during the original determination of 387 IDLHs and their subsequent review and revision in 1994. Ca is designated as carcinogen.
5. Respirable fraction. The concentration of respirable dust for the application of this limit is to be determined from the fraction passing a size-selector with the characteristics defined in ACGIH 2018 TLVs<sup>®</sup> and BEIs<sup>®</sup> Appendix D, paragraph C.

**8(b) Appropriate Engineering Controls:** Local exhaust ventilation should be used to control the emission of air contaminants. General dilution ventilation may assist with the reduction of air contaminant concentrations. Emergency eye wash stations and deluge safety showers should be available in the work area.

### 8(c) Individual Protection Measures:

- **Respiratory Protection:** Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, use only a NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions, level of airborne contamination, and presence of sufficient oxygen. Concentration in air of the various contaminants determines the extent of respiratory protection needed. Half-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 10 times the exposure limit. Full-face, negative-pressure, air-purifying respirator equipped with P100 filter is acceptable for concentrations up to 50 times the exposure limit. Protection by air-purifying negative-pressure and powered air respirators is limited. Use a positive-pressure-demand, full-face, supplied air respirator or self-contained breathing apparatus (SCBA) for concentrations above 50 times the exposure limit. If exposure is above the IDLH (immediately dangerous to life or health) for any of the constituents, or there is a possibility of an uncontrolled release or exposure levels are unknown, then use a positive-demand, full-face, supplied air respirator with escape bottle or SCBA.

**Warning!** Air-purifying respirators both negative-pressure and powered-air do not protect workers in oxygen-deficient atmospheres.

- **Eyes:** Wear eye protection/face protection. A face shield should be used when appropriate to prevent contact with splashed materials. Chemical goggles, face shields or glasses should be worn to prevent eye contact. Contact lenses should not be worn where industrial exposure to this material is likely.
- **Skin:** Persons handling this product should wear appropriate clothing to prevent skin contact. Take off contaminated clothing and wash before reuse. Contaminated work clothing should not be allowed out of the workplace. Wear protective gloves.
- **Other protective equipment:** An eyewash fountain and deluge shower should be readily available in the work area.

## Section 9 - Physical and Chemical Properties

**9(a) Appearance (physical state, color, etc.):** Reddish brown to black lumpy solid

**9(b) Odor:** musty, metallic

**9(c) Odor Threshold:** NA

**9(d) pH:** NA

**9(e) Melting Point/Freezing Point:** >2500°F

**9(f) Initial Boiling Point and Boiling Range:** NA

**9(g) Flash Point:** NA

**9(h) Evaporation Rate:** NA

**9(i) Flammability (solid, gas):** Not flammable

NA - Not Applicable

ND - Not Determined for product as a whole

**9(j) Upper/Lower Flammability or Explosive Limits:** NA

**9(k) Vapor Pressure:** NA

**9(l) Vapor Density (Air = 1):** NA

**9(m) Relative Density:** 1.3-1.8 g/cm<sup>3</sup>

**9(n) Solubility(ies):** Limited in water

**9(o) Partition Coefficient n-octanol/water:** NA

**9(p) Auto-ignition Temperature:** ND

**9(q) Decomposition Temperature:** ND

**9(r) Viscosity:** ND

## Section 10 - Stability and Reactivity

**10(a) Reactivity:** Not Determined (ND)

**10(b) Chemical Stability:** WWTP Sludge is stable under normal storage and handling conditions.

**10(c) Possibility of Hazardous Reaction:** None Known

**10(d) Conditions to Avoid:** Calcium oxide will react with water to form calcium hydroxide.



## Section 10 - Stability and Reactivity (continued)

**10(e) Incompatible Materials:** Iron oxide dusts in contact with calcium hypochlorite evolve oxygen and may cause an explosion.

**10(f) Hazardous Decomposition Products:** Oxides of carbon, metal oxides and toxic vapors may be released at elevated temperatures.

## Section 11 - Toxicological Information

**11 Information on Toxicological Effects:** The following toxicity data has been determined for **WWTP Sludge** when further processed using the information available for its components applied to the guidance on the preparation of an SDS under the GHS requirements of OSHA and the EU CPL:

Hazard Classification	Hazard Category		Hazard Symbols	Signal Word	Hazard Statement
	EU	OSHA			
<b>Carcinogenicity</b> (covers Categories 1A, 1B and 2)	NR	1A <sup>§</sup>		<b>Danger</b>	May cause cancer.
<b>Specific Target Organ Toxicity (STOT) Following Single Exposure</b> (covers Categories 1-3)	2	2 <sup>i</sup>		<b>Warning</b>	May cause mechanical irritation to skin and lung irritation.

\* NR Not Rated - Available data does not meet criteria for classification.

Below is additional toxicological data regarding this product:

- No LC<sub>50</sub> or LD<sub>50</sub> has been established for **WWTP Sludge**. The following data has been determined for the components:
  - Silica:** Rat LD<sub>50</sub> = 500 mg/kg (Oral/ Rat)
  - Iron Oxide:** LD<sub>50</sub> = >10,000 mg/kg (Oral/ Rat)
  - Iron:** Rat LD<sub>50</sub> = 1060 mg/kg (IUCILID) (oral)
- No Skin (Dermal) Irritation data available for **WWTP Sludge** as a mixture. The following Skin (Dermal) Irritation data has been determined for the components:
  - Iron Oxide:** Moderately irritating
- No Eye Irritation data available for **WWTP Sludge** as a mixture. The following Eye Irritation information was found for the components:
  - Iron Oxide:** Severely irritating; may cause burns. Human Corrosive (IUCILID).
  - Iron:** Irritating when administered as Iron metal. Rabbit Draize - irritating (IUCILID).
  - Calcium Oxide:** Rabbit Irritating (REACH).
  - Silicon Dioxide:** Crystalline silica may cause abrasion of the cornea.
- No Skin (Dermal)/Respiratory Sensitization data available for **WWTP Sludge** as a mixture or its individual components.
- No Aspiration Hazard data available for **WWTP Sludge** as a mixture or its individual components.
- No Germ Cell Mutagenicity data available for **WWTP Sludge** as a mixture or its individual components.
- Carcinogenicity: IARC, NTP, and OSHA do not list **WWTP Sludge** as carcinogens. The following Carcinogenicity information was found for the components:
  - Iron Oxide:** IARC-3, unclassifiable as to carcinogenicity in humans; ACGIH TLV-A4, not classifiable as a human carcinogen.
  - Silicon Dioxide:** IARC-1 (silica, crystalline), carcinogen to humans; ACGIH TLV-A2 (silica, crystalline), suspected human carcinogen; NTP-K, known to be a carcinogen; NIOSH-Ca, potential occupational carcinogen; OSHA-Ca, carcinogen.
- No Toxic Reproduction data available for **WWTP Sludge** as a mixture or its individual components.
- No Specific Target Organ Toxicity (STOT) following a Single Exposure data available for **WWTP Sludge** as a mixture. The following STOT following a Single Exposure data was found for the components:
  - Iron Oxide:** May cause lung irritation.
  - Iron:** Irritating to Respiratory tract.
  - Calcium Oxide:** Can cause respiratory tract irritation, skin and eye irritation.
  - Silicon Dioxide:** Single exposure to very high airborne levels may cause lung irritation in exposed humans.
- No Specific Target Organ Toxicity (STOT) following Repeated Exposure data was available for **WWTP Sludge** as a whole. The following STOT following Repeated Exposure data was found for the components:
  - Iron Oxide:** Some pulmonary and lung effects reported.
  - Silicon Dioxide:** Repeated exposure to crystalline silica causes silicosis and kidney damage as well as increased incidence of autoimmune disorders in humans.

The above toxicity information was determined from available scientific sources to illustrate the prevailing posture of the scientific community. The scientific resources includes: The American Conference of Governmental Industrial Hygienist (ACGIH) Documentation of the Threshold Limit Values (TLVs) and Biological Exposure indices (BEIs) with Other Worldwide Occupational Exposure Values 2018, The International Agency for Research on Cancer (IARC), The National Toxicology Program (NTP) updated documentation, the World Health Organization (WHO) and other available resources, the International Uniform Chemical Information Database (IUCILID), European Union Risk Assessment Report (EU-RAR), Concise International Chemical Assessment Documents (CICAD), European Union Scientific Committee for Occupational Exposure Limits (EU-SCOEL), Agency for Toxic Substances and Disease Registry (ATSDR), Hazardous Substance Data Bank (HSDB), and International Programme on Chemical Safety (IPCS), European Union Classification, Labeling and Packaging, (EU CPL), Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), International Uniform Chemical Information Database (IUCILID), TOXicology Data NETwork (TOXNET), European Risk Assessment Reports (EU RAR).

### Section 11 - Toxicological Information (continued)

The following health hazard information is provided regardless to classification criteria and is based on the individual component(s) and potential resultant components from further processing:

#### Acute Effects by Component:

- **IRON (and Iron Oxide):** Iron is harmful if swallowed, causes skin irritation, and causes eye irritation. Contact with iron oxide has been reported to cause skin irritation and serious eye damage.
- **CALCIUM OXIDE:** Calcium oxide is an eye and skin irritant.
- **CRYSTALLINE SILICA (Silicon Dioxide):** Causes irritation and inflammation of the respiratory tract. May cause abrasion of the cornea. Inhalation may cause cough. A single exposure to very high airborne levels may cause lung irritation in exposed humans.
- **AMORPHOUS SILICA (SILICON DIOXIDE):** Not Reported/ Not Classified

#### Delayed (chronic) Effects by Component:

- **IRON (and Iron Oxide):** Chronic inhalation of excessive concentrations of iron oxide fumes or dusts may result in the development of a benign lung disease, called siderosis, which is observable as an X-ray change. No physical impairment of lung function has been associated with siderosis. Inhalation of excessive concentrations of ferric oxide may enhance the risk of lung cancer development in workers exposed to pulmonary carcinogens. Iron oxide is listed as a Group 3 (not classifiable) carcinogen by the International Agency for Research on Cancer (IARC).
- **CALCIUM OXIDE:** Depending on the concentration and duration of exposure, repeated or prolonged inhalation may cause inflammation of the respiratory passages, ulcers of the mucous membranes, and possible perforation of the nasal septum. Repeated or prolonged skin contact may cause dermatitis.
- **CRYSTALLINE SILICA (Silicon Dioxide):** Inhalation of quartz is classified by IARC as a probable human carcinogen. Chronic exposure can cause silicosis, a form of lung scarring that can cause shortness of breath, reduced lung function, and in severe cases, death. Repeated exposure may cause kidney damage as well as increased incidence of autoimmune disorder.
- **AMORPHOUS SILICA (SILICON DIOXIDE):** Silicon dusts are a low health risk by inhalation and should be treated as a nuisance dust. Eye contact with pure material can cause particulate irritation. Skin contact with silicon dusts may cause physical abrasion.

### Section 12 - Ecological Information

**12(a) Ecotoxicity (aquatic & terrestrial):** No data available for the product, **WWTP Sludge** as a whole. However, individual components of the product have been found to be toxic to the environment. Dusts may migrate into soil and groundwater and be ingested by wildlife.

- **Iron Oxide:** LC<sub>50</sub>: >1000 mg/L; Fish
- **Zinc Oxide:** EU RAR lists as Category 1 Very toxic to aquatic life with long lasting effects.
- **Calcium Oxide:** LC<sub>50</sub>: 159 mg/L; invertebrates

**12(b) Persistence & Degradability:** No Data Available

**12(c) Bioaccumulative Potential:** No Data Available

**12(d) Mobility (in soil):** No Data Available

#### Additional Information:

**Hazard Category:** Category 1

**Signal Word:** Warning

**Hazard Symbol:**



**Hazard Statement:** Very Toxic to aquatic life with long lasting effects.

### Section 13 - Disposal Considerations

**Disposal:** Dispose of in accordance with Local, State, Federal and International regulations. Observe safe handling precautions.

**Container Cleaning and Disposal:** Follow Local, State, Federal and International regulations. Observe safe handling precautions.

### Section 14 - Transport Information

#### 14 (a-g) Transportation Information:

**US Department of Transportation (DOT)** under 49 CFR 172.101 may regulate **WWTP Sludge** as a hazardous material under certain circumstances. All Local, State, Federal and international regulations that apply to the transport of this type of material must be adhered to.

### Section 15 - Regulatory Information

**Regulatory Information:** The following listing of regulations relating to an AM/NS Calvert LLC product may not be complete and should not be solely relied upon for all regulatory compliance responsibilities. This product and/or its constituents are subject to the following regulations:

**OSHA Regulations:** Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-2, Z-3): The product, **WWTP Sludge** as a whole is not listed. However, individual components of the product are listed: Refer to Section 8, Exposure Controls and Personal Protection.

**EPA Regulations:** The product, **WWTP Sludge** is not listed as a whole or its components in the following regulatory listings.

**SARA Potential Hazard Categories:** Immediate Acute Health Hazard, Delayed Chronic Health Hazard



## Section 15 - Regulatory Information (continued)


**EPA Regulations (continued):****SARA Potential Hazard Categories:** Immediate Acute Health Hazard, Delayed Chronic Health Hazard**Regulations Key:**

CAA	Clean Air Act (42 USC Sec. 7412; 40 CFR Part 61 [As of: 8/18/06])
CERCLA	Comprehensive Environmental Response, Compensation and Liability Act (42 USC Secs. 9601(14), 9603(a); 40 CFR Sec. 302.4, Table 302.4, Table 302.4 and App. A)
CWA	Clean Water Act (33 USC Secs. 1311; 1314(b), (c), (e), (g); 136(b), (c); 137(b), (c) [as of 8/2/06])
RCRA	Resource Conservation Recovery Act (42 USC Sec. 6921; 40 CFR Part 261 App VIII)
SARA	Superfund Amendments and Reauthorization Act of 1986 Title III Section 302 Extremely Hazardous Substances (42 USC Secs. 11023, 13106; 40 CFR sec. 372.65) and Section 313 Toxic Chemicals (42 USC Secs. 11023, 13106; 40 CFR Sec. 372.65 [as of 6/30/05])
TSCA	Toxic Substance Control Act (15 U.S.C. s/s 2601 et seq. [1976])
SDWA	Safe Drinking Water Act (42 U.S.C. s/s 300f et seq. [1974])

**Section 313 Supplier Notification:** The product, **WWTP Sludge** does not contain any of the toxic chemicals subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR part 372.**State Regulations:** The product, **WWTP Sludge** as a whole is not listed in any state regulations. However, individual components of the product are listed in various state regulations:

Pennsylvania Right to Know (RTK): Contains regulated material in the following categories:

- Hazardous Substances: Iron Oxide, Calcium, Calcium Oxide

California Prop. 65:  This product can expose you to chemicals including silica, crystalline (airborne particles of respirable size) which is known to the State of California to cause cancer; and does not contain chemicals which is known to the State of California to cause reproductive toxicity. For more information go to [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

New Jersey: Contains regulated material in the following categories:

- Hazardous Substance: Iron Oxide, Calcium, Calcium Oxide, Silica Fused, Silicon Dioxide
- Special Health Hazard Substances: Calcium, Calcium Oxide, Silicon Dioxide

Minnesota: Iron Oxide (fume) and Silicon Dioxide

Massachusetts: Iron Oxide, Calcium, Calcium Oxide, Silica Fused, Silicon Dioxide

**Other Regulations:****WHMIS Classification (Canadian):** The product, **WWTP Sludge** is not listed as a whole. However individual components are listed.

Ingredients	WHMIS Classifications
Iron	Combustible dusts - Category 1 (may form combustible dust concentrations in air)
Calcium	Substances which, in contact with water, emit flammable gases - Category 2; Combustible dusts*
Calcium Oxide	Skin corrosion/irritation - Category 1; Serious eye damage/eye irritation - Category 1; Health hazards not otherwise classified (corrosion) - Category 1
Silica Quartz	Carcinogenicity - Category 1A; Specific target organ toxicity - repeated exposure - Category 1

\* This product could belong to the hazard class "Combustible dust", based on various factors related to the combustibility and explosiveness of its dust, including composition, shape and size of the particles.

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

## Section 16 - Other Information

**Prepared By:** AM/NS Calvert LLC**Revision History:**

12/09/2015 – Original

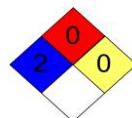
**Revised Date:** 3/15/2021**Additional Information:****Hazardous Material Identification System (HMIS) Classification**

Health Hazard	2
Fire Hazard	0
Physical Hazard	0

HEALTH= 2 \* Temporary or minor injury may occur.

FIRE= 0, Materials that will not burn.

PHYSICAL HAZARDS = 0, Materials that are normally stable, even under fire conditions, and will not react with water, polymerize, decompose, condense, or self-react. Non-explosives.

**National Fire Protection Association (NFPA)**

HEALTH = 2, Intense or continued exposure could cause temporary incapacitation or possible residual injury unless prompt medical attention is given.

FIRE = 0, Materials that will not burn.

INSTABILITY = 0, Normally stable, even under fire exposure conditions, and are not reactive with water.

**Section 16 - Other Information (continued)**

**ABBREVIATIONS/ACRONYMS:**

<b>ACGIH</b>	American Conference of Governmental Industrial Hygienists	<b>NIF</b>	No Information Found
<b>BEIs</b>	Biological Exposure Indices	<b>NIOSH</b>	National Institute for Occupational Safety and Health
<b>CAS</b>	Chemical Abstracts Service	<b>NTP</b>	National Toxicology Program
<b>CERCLA</b>	Comprehensive Environmental Response, Compensation, and Liability Act	<b>ORC</b>	Organization Resources Counselors
<b>CLP</b>	Classification, Labelling and Packaging	<b>OSHA</b>	Occupational Safety and Health Administration
<b>CFR</b>	Code of Federal Regulations	<b>PEL</b>	Permissible Exposure Limit
<b>CNS</b>	Central Nervous System	<b>PNOR</b>	Particulate Not Otherwise Regulated
<b>GI, GIT</b>	Gastro-Intestinal, Gastro-Intestinal Tract	<b>PNOC</b>	Particulate Not Otherwise Classified
<b>HMIS</b>	Hazardous Materials Identification System	<b>PPE</b>	Personal Protective Equipment
<b>IARC</b>	International Agency for Research on Cancer	<b>ppm</b>	parts per million
<b>LC50</b>	Median Lethal Concentration	<b>RCRA</b>	Resource Conservation and Recovery Act
<b>LD50</b>	Median Lethal Dose	<b>REACH</b>	Regulation on Registration, Evaluation, Authorization and Restriction of Chemicals
<b>LD<sub>Lo</sub></b>	Lowest Dose to have killed animals or humans	<b>RTECS</b>	Registry of Toxic Effects of Chemical Substances
<b>LEL</b>	Lower Explosive Limit	<b>SARA</b>	Superfund Amendment and Reauthorization Act
<b>LOEL</b>	Lowest Observed Effect Level	<b>SCBA</b>	Self-contained Breathing Apparatus
<b>LOAEC</b>	Lowest Observable Adverse Effect Concentration	<b>SDS</b>	Safety Data Sheet
<b>µg/m<sup>3</sup></b>	microgram per cubic meter of air	<b>STEL</b>	Short-term Exposure Limit
<b>mg/m<sup>3</sup></b>	milligram per cubic meter of air	<b>TLV</b>	Threshold Limit Value
<b>mppcf</b>	million particles per cubic foot	<b>TWA</b>	Time-weighted Average
<b>MSHA</b>	Mine Safety and Health Administration	<b>UEL</b>	Upper Explosive Limit
<b>NFPA</b>	National Fire Protection Association		

**Disclaimer:** This information is taken from sources or based upon data believed to be reliable. Our objective in sending this information is to help you protect the health and safety of your personnel and to comply with the OSHA Hazard Communication Standard and Title III of the Emergency Planning and Community Right-to-Know Act. AM/NS Calvert LLC makes no warranty as to the absolute correctness, completeness, or sufficiency of any of the foregoing, or any additional, or other measures that may not be required under particular conditions. THIS AM/NS CALVERT LLC SDS MAKES NO WARRANTIES, EXPRESS OR IMPLIED, INCLUDING THE IMPLIED WARRANTY OF MERCHANTABILITY, OR ANY IMPLIED WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE, AND ANY IMPLIED WARRANTIES OTHERWISE ARISING FROM COURSE OF DEALING OR TRADE.

# WWTP Sludge

**Signal Word: DANGER**

**Symbols:**



## HAZARD STATEMENTS:

May cause cancer.  
Causes damage to lungs through prolonged or repeated exposure.

## PRECAUTIONARY STATEMENTS

Do not breathe dusts, mists or sprays.  
Wear protective gloves/protective clothing/eye protection/face protection.  
Do not eat, drink or smoke when using this product.  
Wash thoroughly after handling.  
Obtain special instructions before use.  
Do not handle until all safety precautions have been read and understood.  
If exposed, concerned: Get medical advice/attention.  
Dispose of contents in accordance with federal, state and local regulations.  
Store locked up.

### SDS ID No.: AMNS-0009

AM/NS Calvert LLC  
P.O. Box 456  
Calvert, AL 36513

**General Information: Phone: 251-289-3000**

**CHEMTREC (Day or Night): 1-800-424-9300**

**Emergency Contact: 1-760-476-3962, (Verisk 3E Company Code: 333211)**

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