

# SAFETY DATA SHEET

Emit 2000 Phenobarbital Assay

SDS #: SY4D019

## Section 1. Identification

**Product identifier** : Emit 2000 Phenobarbital Assay  
**Product code** : SY4D019, OSR4D229, 00277884, 10445306, 10462020  
**Product type** : Liquid.

### Relevant identified uses of the substance or mixture and uses advised against

Not applicable.

**Manufactured/supplied** : Siemens Healthcare Diagnostics Inc.  
511 Benedict Avenue  
Tarrytown, NY 10591-5097 USA  
1-877-229-3711  
(800) 424-9300 (CHEMTREC) (24/365)

## Section 2. Hazards identification

**OSHA/HCS status** : Emit® 2000 Phenobarbital Assay, Reagent 1 While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.  
Emit® 2000 Phenobarbital Assay, Reagent 2 While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

**Classification of the substance or mixture** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not classified.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not classified.

**Additional information** : Not available.

Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

### GHS label elements

**Signal word** : Emit® 2000 Phenobarbital Assay, Reagent 1 No signal word.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No signal word.

**Hazard statements** : Emit® 2000 Phenobarbital Assay, Reagent 1 No known significant effects or critical hazards.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No known significant effects or critical hazards.

### Precautionary statements

**Prevention** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not applicable.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not applicable.

**Response** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not applicable.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not applicable.

## Section 2. Hazards identification

<b>Storage</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 Not applicable. Emit® 2000 Phenobarbital Assay, Reagent 2 Not applicable.
<b>Disposal</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 Not applicable. Emit® 2000 Phenobarbital Assay, Reagent 2 Not applicable.
<b>Supplemental label elements</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 None known. Emit® 2000 Phenobarbital Assay, Reagent 2 None known.
<b>Hazards not otherwise classified</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 None known. Emit® 2000 Phenobarbital Assay, Reagent 2 None known.

## Section 3. Composition/information on ingredients

<b>Substance/mixture</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 Mixture Emit® 2000 Phenobarbital Assay, Reagent 2 Mixture
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Ingredient name	%	CAS number
<b>Emit® 2000 Phenobarbital Assay, Reagent 1</b> sodium azide streptomycin sulphate	0.1 <0.1	26628-22-8 3810-74-0
<b>Emit® 2000 Phenobarbital Assay, Reagent 2</b> sodium azide streptomycin sulphate	0.1 <0.1	26628-22-8 3810-74-0

Any concentration shown as a range is to protect confidentiality or is due to batch variation.

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 necessary first aid measures

<b>Eye contact</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs. Emit® 2000 Phenobarbital Assay, Reagent 2 Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Get medical attention if irritation occurs.
<b>Inhalation</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1 Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours. Emit® 2000 Phenobarbital Assay, Reagent 2 Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get medical attention if symptoms occur. In case of inhalation of decomposition products in a fire, symptoms may be delayed. The exposed person may need to be kept under medical surveillance for 48 hours.

## Section 4. First aid measures

<b>Skin contact</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Flush contaminated skin with plenty of water. Remove contaminated clothing and shoes. Get medical attention if symptoms occur.
<b>Ingestion</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Wash out mouth with water. Remove victim to fresh air and keep at rest in a position comfortable for breathing. If material has been swallowed and the exposed person is conscious, give small quantities of water to drink. Do not induce vomiting unless directed to do so by medical personnel. Get medical attention if symptoms occur.

### Most important symptoms/effects, acute and delayed

#### Potential acute health effects

<b>Eye contact</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No known significant effects or critical hazards.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No known significant effects or critical hazards.
<b>Inhalation</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No known significant effects or critical hazards.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No known significant effects or critical hazards.
<b>Skin contact</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No known significant effects or critical hazards.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No known significant effects or critical hazards.
<b>Ingestion</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No known significant effects or critical hazards.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No known significant effects or critical hazards.

#### Over-exposure signs/symptoms

<b>Eye contact</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No specific data.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No specific data.
<b>Inhalation</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No specific data.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No specific data.
<b>Skin contact</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No specific data.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No specific data.
<b>Ingestion</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	No specific data.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No specific data.

### Indication of immediate medical attention and special treatment needed, if necessary

<b>Notes to physician</b>	: Treat symptomatically. Contact poison treatment specialist immediately if large quantities have been ingested or inhaled.
<b>Specific treatments</b>	: No specific treatment.

## Section 4. First aid measures

**Protection of first-aiders** : No action shall be taken involving any personal risk or without suitable training.

See toxicological information (Section 11)

## Section 5. Fire-fighting measures

### Extinguishing media

**Suitable extinguishing media** : In case of fire, use water spray (fog), foam or dry chemical.

**Unsuitable extinguishing media** : None known.

**Specific hazards arising from the chemical** : In a fire or if heated, a pressure increase will occur and the container may burst.

**Hazardous thermal decomposition products** : No specific data.

**Special protective actions for fire-fighters** : Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. No action shall be taken involving any personal risk or without suitable training.

**Special protective equipment for fire-fighters** : Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

## Section 6. Accidental release measures

### Personal precautions, protective equipment and emergency procedures

**For non-emergency personnel** : No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilled material. Put on appropriate personal protective equipment.

**For emergency responders** : If specialized clothing is required to deal with the spillage, take note of any information in Section 8 on suitable and unsuitable materials. See also the information in "For non-emergency personnel".

**Environmental precautions** : Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air).

### Methods and materials for containment and cleaning up

**Small spill** : Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

**Large spill** : Stop leak if without risk. Move containers from spill area. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations (see Section 13). Dispose of via a licensed waste disposal contractor. Note: see Section 1 for emergency contact information and Section 13 for waste disposal.

## Section 7. Handling and storage

### Precautions for safe handling

- Protective measures** : Put on appropriate personal protective equipment (see Section 8).
- Advice on general occupational hygiene** : 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. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.
- Conditions for safe storage, including any incompatibilities** : Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Use appropriate containment to avoid environmental contamination.

## Section 8. Exposure controls/personal protection

### Control parameters

#### Occupational exposure limits

Ingredient name	Exposure limits
<b>Emit® 2000 Phenobarbital Assay, Reagent 1</b> sodium azide	<p><b>ACGIH TLV (United States, 3/2015). Notes: as hydrazoic acid vapor</b>  C: 0.11 ppm, (as Hydrazoic acid vapor) Form: as Hydrazoic acid vapor</p> <p><b>ACGIH TLV (United States, 3/2015).</b>  C: 0.29 mg/m<sup>3</sup>, (as Sodium azide) Form: as Sodium azide</p> <p><b>NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: NAN3</b>  CEIL: 0.3 mg/m<sup>3</sup>, (NAN3)</p> <p><b>NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: as HN3</b>  CEIL: 0.1 ppm, (as HN3)</p> <p><b>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as HN3</b>  CEIL: 0.1 ppm, (as HN3)</p> <p><b>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as NaN3</b>  CEIL: 0.3 mg/m<sup>3</sup>, (as NaN3)</p>
<b>Emit® 2000 Phenobarbital Assay, Reagent 2</b> sodium azide	<p><b>ACGIH TLV (United States, 3/2015). Notes: as hydrazoic acid vapor</b>  C: 0.11 ppm, (as Hydrazoic acid vapor) Form: as Hydrazoic acid vapor</p> <p><b>ACGIH TLV (United States, 3/2015).</b>  C: 0.29 mg/m<sup>3</sup>, (as Sodium azide) Form: as Sodium azide</p> <p><b>NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: NAN3</b>  CEIL: 0.3 mg/m<sup>3</sup>, (NAN3)</p> <p><b>NIOSH REL (United States, 10/2013). Absorbed through skin. Notes: as HN3</b>  CEIL: 0.1 ppm, (as HN3)</p> <p><b>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as HN3</b>  CEIL: 0.1 ppm, (as HN3)</p> <p><b>OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. Notes: as NaN3</b>  CEIL: 0.3 mg/m<sup>3</sup>, (as NaN3)</p>

## Section 8. Exposure controls/personal protection

- Appropriate engineering controls** : Good general ventilation should be sufficient to control worker exposure to airborne contaminants.
- Environmental exposure controls** : Emissions from ventilation or work process equipment should be checked to ensure they comply with the requirements of environmental protection legislation. In some cases, fume scrubbers, filters or engineering modifications to the process equipment will be necessary to reduce emissions to acceptable levels.
- Individual protection measures**
- 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. Appropriate techniques should be used to remove potentially contaminated clothing. Wash contaminated clothing before reusing. Ensure that eyewash stations and safety showers are close to the workstation location.
- Eye/face protection** : Safety eyewear complying with an approved standard should be used when a risk assessment indicates this is necessary to avoid exposure to liquid splashes, mists, gases or dusts. If contact is possible, the following protection should be worn, unless the assessment indicates a higher degree of protection: safety glasses with side-shields.
- Skin protection**
- Hand protection** : Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary.
- Body protection** : Personal protective equipment for the body should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Other skin protection** : Appropriate footwear and any additional skin protection measures should be selected based on the task being performed and the risks involved and should be approved by a specialist before handling this product.
- Respiratory protection** : Based on the hazard and potential for exposure, select a respirator that meets the appropriate standard or certification. Respirators must be used according to a respiratory protection program to ensure proper fitting, training, and other important aspects of use.

## Section 9. Physical and chemical properties

- Physical state** : Emit® 2000 Phenobarbital Assay, Reagent 1 Liquid.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Liquid.
- Color** : Emit® 2000 Phenobarbital Assay, Reagent 1 Clear.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Clear.
- Odor** : Emit® 2000 Phenobarbital Assay, Reagent 1 Odorless.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Odorless.
- pH** : Emit® 2000 Phenobarbital Assay, Reagent 1 5.5 [Conc. (% w/w): 100%]  
Emit® 2000 Phenobarbital Assay, Reagent 2 7.5 [Conc. (% w/w): 100%]
- Flash point** : Emit® 2000 Phenobarbital Assay, Reagent 1 [Product does not sustain combustion.]  
Emit® 2000 Phenobarbital Assay, Reagent 2 [Product does not sustain combustion.]
- Flammability (solid, gas)** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not relevant/applicable due to nature of the product.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not relevant/applicable due to nature of the product.
- Relative density** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not relevant/applicable due to nature of the product.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not relevant/applicable due to nature of the product.
- Solubility in water** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not relevant/applicable due to nature of the product.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not relevant/applicable due to nature of the product.
- Partition coefficient: n-octanol/water** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

## Section 9. Physical and chemical properties

**Auto-ignition temperature** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

**Viscosity** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

### Aerosol product

**Type of aerosol** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not applicable.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not applicable.

## Section 10. Stability and reactivity

**Reactivity** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific test data related to reactivity available for this product or its ingredients.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific test data related to reactivity available for this product or its ingredients.

**Chemical stability** : Emit® 2000 Phenobarbital Assay, Reagent 1 The product is stable.  
Emit® 2000 Phenobarbital Assay, Reagent 2 The product is stable.

**Possibility of hazardous reactions** : Under normal conditions of storage and use, hazardous reactions will not occur.

**Conditions to avoid** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific data.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific data.

**Incompatible materials** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific data.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific data.

**Hazardous decomposition products** : Emit® 2000 Phenobarbital Assay, Reagent 1 Under normal conditions of storage and use, hazardous decomposition products should not be produced.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Under normal conditions of storage and use, hazardous decomposition products should not be produced.

## Section 11. Toxicological information

### Information on toxicological effects

#### Acute toxicity

Product/ingredient name	Result	Species	Dose	Exposure	
<b>Emit® 2000 Phenobarbital Assay, Reagent 1</b> sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-	
	LD50 Dermal	Rat	50 mg/kg	-	
	LD50 Oral	Rat	27 mg/kg	-	
	LD50 Oral	Rat	430 mg/kg	-	
streptomycin sulphate	LD50 Oral	Rat	430 mg/kg	-	
	<b>Emit® 2000 Phenobarbital Assay, Reagent 2</b> sodium azide	LD50 Dermal	Rabbit	20 mg/kg	-
		LD50 Dermal	Rat	50 mg/kg	-
		LD50 Oral	Rat	27 mg/kg	-
LD50 Oral		Rat	430 mg/kg	-	
streptomycin sulphate	LD50 Oral	Rat	430 mg/kg	-	

**Conclusion/Summary** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
1  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.  
2

#### Irritation/Corrosion

Not available.

## Section 11. Toxicological information

### Conclusion/Summary

<b>Skin</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.
<b>Eyes</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.
<b>Respiratory</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

### Sensitization

Not available.

### Conclusion/Summary

<b>Skin</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.
<b>Respiratory</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

### Mutagenicity

Not available.

### Conclusion/Summary

: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

### Carcinogenicity

Not available.

### Conclusion/Summary

: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

### Reproductive toxicity

Not available.

### Conclusion/Summary

: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

### Teratogenicity

Not available.

### Conclusion/Summary

: Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

### Specific target organ toxicity (single exposure)

Not available.

### Specific target organ toxicity (repeated exposure)

Not available.

### Aspiration hazard

Not available.



## Section 11. Toxicological information

**Information on the likely routes of exposure** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

### Potential acute health effects

**Eye contact** : Emit® 2000 Phenobarbital Assay, Reagent 1 No known significant effects or critical hazards.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No known significant effects or critical hazards.

**Inhalation** : Emit® 2000 Phenobarbital Assay, Reagent 1 No known significant effects or critical hazards.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No known significant effects or critical hazards.

**Skin contact** : Emit® 2000 Phenobarbital Assay, Reagent 1 No known significant effects or critical hazards.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No known significant effects or critical hazards.

**Ingestion** : Emit® 2000 Phenobarbital Assay, Reagent 1 No known significant effects or critical hazards.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No known significant effects or critical hazards.

### Symptoms related to the physical, chemical and toxicological characteristics

**Eye contact** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific data.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific data.

**Inhalation** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific data.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific data.

**Skin contact** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific data.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific data.

**Ingestion** : Emit® 2000 Phenobarbital Assay, Reagent 1 No specific data.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No specific data.

### Delayed and immediate effects and also chronic effects from short and long term exposure

#### Short term exposure

**Potential immediate effects** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

**Potential delayed effects** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

#### Long term exposure

**Potential immediate effects** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

**Potential delayed effects** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

#### Potential chronic health effects

Not available.

**Conclusion/Summary** : Not available. Emit® 2000 Phenobarbital Assay, Reagent 1  
Not available. Emit® 2000 Phenobarbital Assay, Reagent 2

**General** : No known significant effects or critical hazards.

**Carcinogenicity** : No known significant effects or critical hazards.

**Mutagenicity** : No known significant effects or critical hazards.

**Teratogenicity** : No known significant effects or critical hazards.

**Developmental effects** : No known significant effects or critical hazards.

**Fertility effects** : No known significant effects or critical hazards.

## Section 11. Toxicological information

### Numerical measures of toxicity

#### Acute toxicity estimates

Not available.

**Interactive effects** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

**Other information** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

## Section 12. Ecological information

### Toxicity

Product/ingredient name	Result	Species	Exposure	
<b>Emit® 2000 Phenobarbital Assay, Reagent 1</b> sodium azide	Acute EC50 0.348 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours	
	Acute EC50 4.2 to 6.2 mg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours	
	Acute LC50 9000 µg/l Fresh water	Crustaceans - Gammarus lacustris	48 hours	
	Acute LC50 0.68 mg/l Fresh water	Fish - Lepomis macrochirus	96 hours	
	Chronic NOEC 5600 µg/l Marine water	Algae - Macrocystis pyrifera	96 hours	
streptomycin sulphate	Acute EC50 0.133 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	3 days	
	Acute EC50 363000 µg/l	Daphnia - Daphnia magna	48 hours	
	Chronic NOEC 32 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days	
	<b>Emit® 2000 Phenobarbital Assay, Reagent 2</b> sodium azide	Acute EC50 0.348 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata	96 hours
		Acute EC50 4.2 to 6.2 mg/l Fresh water	Daphnia - Daphnia pulex - Larvae	48 hours
Acute LC50 9000 µg/l Fresh water		Crustaceans - Gammarus lacustris	48 hours	
Acute LC50 0.68 mg/l Fresh water		Fish - Lepomis macrochirus	96 hours	
Chronic NOEC 5600 µg/l Marine water		Algae - Macrocystis pyrifera	96 hours	
streptomycin sulphate	Acute EC50 0.133 mg/l Fresh water	Algae - Pseudokirchneriella subcapitata - Exponential growth phase	3 days	
	Acute EC50 363000 µg/l	Daphnia - Daphnia magna	48 hours	
	Chronic NOEC 32 mg/l Fresh water	Daphnia - Daphnia magna - Neonate	21 days	

**Conclusion/Summary** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

### Persistence and degradability

**Conclusion/Summary** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not available.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not available.

## Section 12. Ecological information

### Bioaccumulative potential

Not available.

### Mobility in soil

<b>Soil/water partition coefficient (K<sub>oc</sub>)</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.
<b>Mobility</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	Not available.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not available.

**Other adverse effects** : No known significant effects or critical hazards.

## Section 13. Disposal considerations

**Disposal methods** : The generation of waste should be avoided or minimized wherever possible. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Empty containers or liners may retain some product residues. Avoid dispersal of spilled material and runoff and contact with soil, waterways, drains and sewers. Sodium azide may react with lead or copper plumbing to form highly explosive metal azides.

## Section 14. Transport information

### DOT Classification

<b>UN number</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	Not regulated.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not regulated.
<b>UN proper shipping name</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-
<b>Transport hazard class(es)</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-
<b>Packing group</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-
<b>Environmental hazards</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	No.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No.
<b>Additional information</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-

### TDG Classification

<b>UN number</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	Not regulated.
	Emit® 2000 Phenobarbital Assay, Reagent 2	Not regulated.
<b>UN proper shipping name</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-

## Section 14. Transport information

**Transport hazard class(es)** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Packing group** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Environmental hazards** Emit® 2000 Phenobarbital Assay, Reagent 1 No.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No.

**Additional information** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

### ADR/RID

**UN number** Emit® 2000 Phenobarbital Assay, Reagent 1 Not regulated.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not regulated.

**UN proper shipping name** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Transport hazard class(es)** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Packing group** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Environmental hazards** Emit® 2000 Phenobarbital Assay, Reagent 1 No.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No.

**Additional information** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

### IMDG

**UN number** Emit® 2000 Phenobarbital Assay, Reagent 1 Not regulated.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not regulated.

**UN proper shipping name** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Transport hazard class(es)** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Packing group** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

**Environmental hazards** Emit® 2000 Phenobarbital Assay, Reagent 1 No.  
Emit® 2000 Phenobarbital Assay, Reagent 2 No.

**Additional information** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

### IATA

**UN number** Emit® 2000 Phenobarbital Assay, Reagent 1 Not regulated.  
Emit® 2000 Phenobarbital Assay, Reagent 2 Not regulated.

**UN proper shipping name** Emit® 2000 Phenobarbital Assay, Reagent 1 -  
Emit® 2000 Phenobarbital Assay, Reagent 2 -

## Section 14. Transport information

<b>Transport hazard class(es)</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-
<b>Packing group</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-
<b>Environmental hazards</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	No.
	Emit® 2000 Phenobarbital Assay, Reagent 2	No.
<b>Additional information</b>	Emit® 2000 Phenobarbital Assay, Reagent 1	-
	Emit® 2000 Phenobarbital Assay, Reagent 2	-

<b>Special precautions for user</b>	: Emit® 2000 Phenobarbital Assay, Reagent 1	<b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.
	Emit® 2000 Phenobarbital Assay, Reagent 2	<b>Transport within user's premises:</b> always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL and the IBC Code** : Not applicable.

## Section 15. Regulatory information

**U.S. Federal regulations** : TSCA 8(a) CDR Exempt/Partial exemption: Not determined  
United States inventory (TSCA 8b): Not determined.

**Clean Air Act Section 112 (b) Hazardous Air Pollutants (HAPs)** : Listed

**Clean Air Act Section 602 Class I Substances** : Not listed

**Clean Air Act Section 602 Class II Substances** : Not listed

**DEA List I Chemicals (Precursor Chemicals)** : Not listed

**DEA List II Chemicals (Essential Chemicals)** : Not listed

### SARA 302/304

#### Composition/information on ingredients

Name	%	EHS	SARA 302 TPQ		SARA 304 RQ	
			(lbs)	(gallons)	(lbs)	(gallons)
Emit® 2000 Phenobarbital Assay, Reagent 1 sodium azide	0.1	Yes.	500	-	1000	-
Emit® 2000 Phenobarbital Assay, Reagent 2 sodium azide	0.1	Yes.	500	-	1000	-

**SARA 304 RQ** : 1000000 lbs / 454000 kg

## Section 15. Regulatory information

### SARA 311/312

**Classification** : Not applicable.

### Composition/information on ingredients

Name	%	Fire hazard	Sudden release of pressure	Reactive	Immediate (acute) health hazard	Delayed (chronic) health hazard
<b>Emit® 2000 Phenobarbital Assay, Reagent 1</b> sodium azide streptomycin sulphate	0.1 <0.1	No. No.	No. No.	No. No.	Yes. Yes.	No. No.
<b>Emit® 2000 Phenobarbital Assay, Reagent 2</b> sodium azide streptomycin sulphate	0.1 <0.1	No. No.	No. No.	No. No.	Yes. Yes.	No. No.

### State regulations

**Massachusetts** : None of the components are listed.

**New York** : None of the components are listed.

**New Jersey** : None of the components are listed.

**Pennsylvania** : None of the components are listed.

### California Prop. 65

**WARNING:** This product contains less than 1% of a chemical known to the State of California to cause birth defects or other reproductive harm.

Ingredient name	Cancer	Reproductive	No significant risk level	Maximum acceptable dosage level
<b>Emit® 2000 Phenobarbital Assay, Reagent 1</b> Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)
streptomycin, sulfate (2:3) (salt)	No.	Yes.	No.	No.
<b>Emit® 2000 Phenobarbital Assay, Reagent 2</b> Methanol	No.	Yes.	No.	23000 µg/day (ingestion) 47000 µg/day (inhalation)
streptomycin, sulfate (2:3) (salt)	No.	Yes.	No.	No.

### International regulations

**Chemical Weapons Convention List Schedule I Chemicals** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not listed

Emit® 2000 Phenobarbital Assay, Reagent 2 Not listed

**Chemical Weapons Convention List Schedule II Chemicals** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not listed

Emit® 2000 Phenobarbital Assay, Reagent 2 Not listed

**Chemical Weapons Convention List Schedule III Chemicals** : Emit® 2000 Phenobarbital Assay, Reagent 1 Not listed

Emit® 2000 Phenobarbital Assay, Reagent 2 Not listed

## Section 16. Other information

### History

**Date of issue/Date of revision** : 5/25/2018

**Version** : 1.08

### Key to abbreviations

: ATE = Acute Toxicity Estimate  
BCF = Bioconcentration Factor  
GHS = Globally Harmonized System of Classification and Labelling of Chemicals  
IATA = International Air Transport Association  
IBC = Intermediate Bulk Container  
IMDG = International Maritime Dangerous Goods  
LogPow = logarithm of the octanol/water partition coefficient  
MARPOL = International Convention for the Prevention of Pollution From Ships, 1973 as modified by the Protocol of 1978. ("Marpol" = marine pollution)  
UN = United Nations

▣ Indicates information that has changed from previously issued version.