

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date:  
11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

### SECTION 1. IDENTIFICATION

#### Product identifier

Product name : ANOX™ BB 011 POWDER  
Other means of identification : ANOX® NDB® 011 POWDER

#### Recommended use of the chemical and restrictions on use

Recommended use : Antioxidant  
Restrictions on use : Reserved for industrial and professional use.

#### Manufacturer or supplier's details

##### Supplier

Company : SI Group USA (USAA), LLC  
Address : 4 Mountainview Terrace  
Suite 200  
Danbury, CT  
United States of America (USA)  
06810  
E-mail address : msdsrequest@siigroup.com

##### Supplier

Company : SI Group USA (USAA), LLC  
Address : 4 Mountainview Terrace  
Suite 200  
Danbury, CT  
United States of America (USA)  
06810  
E-mail address : msdsrequest@siigroup.com

#### Emergency telephone number

Emergency Phone Number : CHEMTREC/US : +1 703-741-5970  
NCEC/CHINA : 400 120 6011  
NCEC/INDIA : 000 800 100 7479  
NCEC/ROW : +44 1235 239670

---

### SECTION 2. HAZARDS IDENTIFICATION

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

### GHS classification in accordance with 29 CFR 1910.1200

Combustible dust

### GHS label elements

Signal word : Warning

Hazard statements : May form combustible dust concentrations in air.

### Other hazards

None known.

---

## SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Substance / Mixture : Mixture

Chemical nature : Hindered phenols  
Aryl phosphite  
Mixture

### Hazardous components

No ingredients are hazardous according to OSHA criteria.

---

## SECTION 4. FIRST AID MEASURES

General advice : No hazards which require special first aid measures.

If inhaled : Move to fresh air in case of accidental inhalation of dust or fumes from overheating or combustion.  
If symptoms persist, call a physician.

In case of skin contact : Take off contaminated clothing and shoes immediately.  
Wash off with soap and plenty of water.

In case of eye contact : Flush eyes with water as a precaution.  
Remove contact lenses.  
Protect unharmed eye.  
Keep eye wide open while rinsing.

If swallowed : Clean mouth with water and drink afterwards plenty of water.  
Do not give milk or alcoholic beverages.  
Never give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed : Product dust may be irritating to eyes, skin and respiratory system.

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

Notes to physician : The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.

---

### SECTION 5. FIREFIGHTING MEASURES

Suitable extinguishing media : Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media : High volume water jet

Specific hazards during firefighting : Do not allow run-off from fire fighting to enter drains or water courses.  
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Do not allow run-off from fire fighting to enter drains or water courses.  
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Burning produces noxious and toxic fumes.  
Thermal decomposition can lead to release of irritating gases and vapours.  
May form explosive dust-air mixture.

Hazardous combustion products : No hazardous combustion products are known.

Further information : Standard procedure for chemical fires.

Special protective equipment for firefighters : In the event of fire, wear self-contained breathing apparatus.

### SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures : Use personal protective equipment.  
Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.  
Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).  
Non-sparking tools should be used.  
Remove all sources of ignition.  
Keep in properly labelled containers.

Methods and materials for : Sweep up and shovel.

**ANOX™ BB 011 POWDER**

Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

containment and cleaning up      Keep in suitable, closed containers for disposal.

---

**SECTION 7. HANDLING AND STORAGE**

- Advice on safe handling      :    Minimize dust generation and accumulation.  
Routine housekeeping should be instituted to ensure that  
dusts do not accumulate on surfaces.  
Dry powders can build static electricity charges when  
subjected to the friction of transfer and mixing operations.  
Keep away from heat and sources of ignition.
- Conditions for safe storage    :    Keep container tightly closed in a dry and well-ventilated  
place.
- Materials to avoid            :    No special restrictions on storage with other products.
- Further information on  
storage stability               :    Keep in a dry place.

**SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION****Components with workplace control parameters**

Contains no substances with occupational exposure limit values.

- Engineering measures**      :    It is recommended that all dust control equipment such as  
local exhaust ventilation and material transport systems  
involved in handling of this product contain explosion relief  
vents or an explosion suppression system or an oxygen  
deficient environment.  
Ensure that dust-handling systems (such as exhaust ducts,  
dust collectors, vessels, and processing equipment) are  
designed in a manner to prevent the escape of dust into the  
work area (i.e., there is no leakage from the equipment).  
Good general ventilation (typically 10 air changes per hour)  
should be used. Ventilation rates should be matched to  
conditions. If applicable, use process enclosures, local  
exhaust ventilation, or other engineering controls to maintain  
airborne levels below recommended exposure limits. If  
exposure limits have not been established, maintain airborne  
levels to an acceptable level. Ensure adequate ventilation,  
especially in confined areas.  
Dust formation may be relevant in the processing of this  
product. In addition to substance-specific OELs, general  
limitations of concentrations of particulates in the air at  
workplaces have to be considered in workplace risk  
assessment. Relevant limits include: OSHA PEL for  
Particulates Not Otherwise Regulated of 15 mg/m<sup>3</sup> - total  
dust, 5 mg/m<sup>3</sup> - respirable fraction; and ACGIH TWA for  
Particles (insoluble or poorly soluble) Not Otherwise Specified

# SAFETY DATA SHEET



## ANOX™ BB 011 POWDER

Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

of 3 mg/m<sup>3</sup> - respirable particles, 10 mg/m<sup>3</sup> - inhalable particles.

### Personal protective equipment

Respiratory protection : No personal respiratory protective equipment normally required.

Hand protection  
Remarks : For prolonged or repeated contact use protective gloves.

Eye protection : Safety glasses

Skin and body protection : Protective suit

Hygiene measures : General industrial hygiene practice.

### Environmental exposure controls

Water : Do not let product enter drains.

## SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance : powder, or, granules

Colour : white to off-white

Odour : odourless

Odour Threshold : No data available

pH : No data available

Melting point/range : 230 - 365 °F / 110 - 185 °C

Boiling point/boiling range : No data available

Flash point : > 392 °F / 200 °C

Evaporation rate : < Ether

Flammability (solid, gas) : No data available

Upper explosion limit / Upper flammability limit : No data available

Lower explosion limit / Lower flammability limit : No data available

Vapour pressure : No data available

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

|  |                     |
|--|---------------------|
| Relative vapour density                | : Heavier than air  |
| Relative density                       | : No data available |
| Density                                | : No data available |
| Bulk density                           | : No data available |
| Solubility(ies)                        |                     |
| Water solubility                       | : insoluble         |
| Solubility in other solvents           | : No data available |
| Partition coefficient: n-octanol/water | : No data available |
| Auto-ignition temperature              | : No data available |
| Decomposition temperature              | : No data available |
| Viscosity                              |                     |
| Viscosity, dynamic                     | : No data available |
| Viscosity, kinematic                   | : No data available |
| Explosive properties                   | : No data available |
| Oxidizing properties                   | : No data available |
| Surface tension                        | : No data available |

---

### SECTION 10. STABILITY AND REACTIVITY

|                                    |  |
|------------------------------------|--|
| Reactivity                         | : Stable under recommended storage conditions.               |
| Chemical stability                 | : No decomposition if stored and applied as directed.        |
| Possibility of hazardous reactions | : No hazards to be specially mentioned.                      |
| Conditions to avoid                | : Heat, flames and sparks.                                   |
| Incompatible materials             | : Strong oxidizing agents<br>Strong bases<br>Reducing agents |
| Hazardous decomposition products   | : Carbon dioxide (CO <sub>2</sub> )<br>Carbon monoxide       |

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

Phosphorus trihydride (phosphine)  
Oxides of phosphorus

---

### SECTION 11. TOXICOLOGICAL INFORMATION

#### Acute toxicity

Not classified based on available information.

#### Product:

Acute oral toxicity : Acute toxicity estimate: > 5,000 mg/kg  
Method: Calculation method

Acute inhalation toxicity : Remarks: May cause irritation of respiratory tract.

Acute dermal toxicity : Remarks: May cause skin irritation.

#### Skin corrosion/irritation

Not classified based on available information.

#### Product:

Remarks : The product is not considered as being a skin irritant.

#### Serious eye damage/eye irritation

Not classified based on available information.

#### Product:

Remarks : The product is not considered as being an eye irritant.

#### Respiratory or skin sensitisation

##### Skin sensitisation

Not classified based on available information.

##### Respiratory sensitisation

Not classified based on available information.

##### Germ cell mutagenicity

Not classified based on available information.

##### Carcinogenicity

Not classified based on available information.

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

**OSHA** No component of this product present at levels greater than or equal to 0.1% is on OSHA's list of regulated carcinogens.

**NTP** No component of this product present at levels greater than or equal to 0.1% is

## ANOX™ BB 011 POWDER

Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

---

identified as a known or anticipated carcinogen by NTP.

**Reproductive toxicity**

Not classified based on available information.

**STOT - single exposure**

Not classified based on available information.

**STOT - repeated exposure**

Not classified based on available information.

**Repeated dose toxicity**

Based on available data, the classification criteria are not met.

**Aspiration toxicity**

Not classified based on available information.

---

**SECTION 12. ECOLOGICAL INFORMATION****Ecotoxicity**

Based on available data, the classification criteria are not met.

**Persistence and degradability****Product:**

Biodegradability : Remarks: Not readily biodegradable.

**Bioaccumulative potential****Product:**

Bioaccumulation : Remarks: No data available

**Mobility in soil**

There is no data available for this product.

**Other adverse effects****Product:**

Results of PBT and vPvB assessment : This mixture contains no substance considered to be persistent, bioaccumulating and toxic (PBT).

Ozone-Depletion Potential : Regulation: 40 CFR Protection of Environment; Part 82 Protection of Stratospheric Ozone - CAA Section 602 Class I Substances  
Remarks: This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

Additional ecological : There is no data available for this product.



# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

information

### SECTION 13. DISPOSAL CONSIDERATIONS

#### Disposal methods

- Waste from residues : Offer surplus and non-recyclable solutions to a licensed disposal company.
- Contaminated packaging : Empty remaining contents. Empty containers should be taken to an approved waste handling site for recycling or disposal.

### SECTION 14. TRANSPORT INFORMATION

#### International Regulations

##### IATA-DGR

Not regulated as a dangerous good

##### IMDG-Code

Not regulated as a dangerous good

#### Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable for product as supplied.

#### National Regulations

##### 49 CFR

Not regulated as a dangerous good

### SECTION 15. REGULATORY INFORMATION

#### EPCRA - Emergency Planning and Community Right-to-Know Act

#### SARA 302 Extremely Hazardous Substances Threshold Planning Quantity

| Components | CAS-No. | Component TPQ (lbs) |
|------------|---------|---------------------|
|------------|---------|---------------------|

**SARA 311/312 Hazards** : No SARA Hazards

**SARA 313** : This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

#### Clean Air Act

This product neither contains, nor was manufactured with a Class I or Class II ODS as defined by the U.S. Clean Air Act Section 602 (40 CFR 82, Subpt. A, App.A + B).

This product does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 112 (40 CFR 61).

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 112(r) for Accidental Release Prevention (40 CFR 68.130, Subpart F).

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCM Intermediate or Final VOC's (40 CFR 60.489).

### Clean Water Act

This product does not contain any Hazardous Substances listed under the U.S. CleanWater Act, Section 311, Table 116.4A.

This product does not contain any Hazardous Chemicals listed under the U.S. CleanWater Act, Section 311, Table 117.3.

This product does not contain any toxic pollutants listed under the U.S. Clean Water Act Section 307

### US State Regulations

#### Massachusetts Right To Know

No components are subject to the Massachusetts Right to Know Act.

#### Pennsylvania Right To Know

|   |            |
|---|------------|
| tris(2,4-ditert-butylphenyl) phosphite                                    | 31570-04-4 |
| pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) | 6683-19-8  |

#### New Jersey Right To Know

|   |            |
|---|------------|
| tris(2,4-ditert-butylphenyl) phosphite                                    | 31570-04-4 |
| pentaerythritol tetrakis(3-(3,5-di-tert-butyl-4-hydroxyphenyl)propionate) | 6683-19-8  |

#### California Prop. 65

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm.

### The components of this product are reported in the following inventories:

|       |  |
|-------|--|
| TSCA  | : On TSCA Inventory                                      |
| DSL   | : All components of this product are on the Canadian DSL |
| AICS  | : On the inventory, or in compliance with the inventory  |
| NZIoC | : On the inventory, or in compliance with the inventory  |
| ENCS  | : On the inventory, or in compliance with the inventory  |
| KECI  | : On the inventory, or in compliance with the inventory  |
| ISHL  | : On the inventory, or in compliance with the inventory  |
| PICCS | : On the inventory, or in compliance with the inventory  |
| IECSC | : On the inventory, or in compliance with the inventory  |
| TCSI  | : Not in compliance with the inventory                   |

### TSCA list

# SAFETY DATA SHEET

## ANOX™ BB 011 POWDER



Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

No substances are subject to a Significant New Use Rule.

No substances are subject to TSCA 12(b) export notification requirements.

### SECTION 16. OTHER INFORMATION

#### Further information

##### NFPA 704:

|   |        |              |
|---|--------|--------------|
|   |        | Flammability |
|   | 1      |              |
| 0 | Health | 0            |
|   |        | Instability  |

##### HMIS® IV:

Special hazard.

HMIS® ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks. The "\*" represents a chronic hazard, while the "/" represents the absence of a chronic hazard.

#### Full text of other abbreviations

AICS - Australian Inventory of Chemical Substances; ASTM - American Society for the Testing of Materials; bw - Body weight; CERCLA - Comprehensive Environmental Response, Compensation, and Liability Act; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DOT - Department of Transportation; DSL - Domestic Substances List (Canada); ECx - Concentration associated with x% response; EHS - Extremely Hazardous Substance; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; ERG - Emergency Response Guide; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; HMIS - Hazardous Materials Identification System; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; MSHA - Mine Safety and Health Administration; n.o.s. - Not Otherwise Specified; NFPA - National Fire Protection Association; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed

# SAFETY DATA SHEET



## ANOX™ BB 011 POWDER

Version 1.2  
Revision Date: 11/30/2020

Date of last issue: 03/27/2012  
Date of first issue: 02/20/2008

(Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NTP - National Toxicology Program; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; RCRA - Resource Conservation and Recovery Act; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RQ - Reportable Quantity; SADT - Self-Accelerating Decomposition Temperature; SARA - Superfund Amendments and Reauthorization Act; SDS - Safety Data Sheet; TCSI - Taiwan Chemical Substance Inventory; TSCA - Toxic Substances Control Act (United States); UN - United Nations; UNRTDG - United Nations Recommendations on the Transport of Dangerous Goods; vPvB - Very Persistent and Very Bioaccumulative

Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.  
Refer to NFPA 654, Standard for the Prevention of Fire and Dust Explosions from the Manufacturing, Processing, and Handling of Combustible Particulate Solids, for safe handling.

Revision Date : 11/30/2020

The information and recommendations contained in this safety data sheet are, to the best of SI Group's knowledge, belief and experience, accurate and reliable as of the date of its publication and describe the product only with regard to safety requirements. It is the user's responsibility to confirm that it is using the most current available version of this safety data sheet. The information and recommendations herein are offered for the user's consideration and examination. Identified uses in this safety data sheet do neither represent an agreement on the quality of the Product nor a designated use. For the avoidance of doubt, nothing herein shall be construed as relieving the user of its responsibility to ensure that the product is suitable for the intended use and that any proprietary rights, existing laws and legislation are observed. NO WARRANTIES OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, ARE MADE REGARDING THE PRODUCT DESCRIPTIONS, DATA OR INFORMATION HEREIN. This safety data sheet is neither a Certificate of Analysis (CoA) nor a technical data sheet and shall not be mistaken for a description of the product's specifications. If user repackages this product, it is the user's responsibility to insure proper health, safety and other necessary information is included with and/or on the packaging. Appropriate warnings and safe-handling procedures should be provided to handlers and further users of the product. Alteration of this document is strictly prohibited. Except to the extent required by law, re-publication or retransmission of this document, in whole or in part, is not permitted.

US / EN