

FOR ANY EMERGENCY, 24 HOURS / 7 DAYS, CALL:	1-800-654-6911 (OUTSIDE USA: 1-423-780-2970)
FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC®:	1-800-424-9300 (OUTSIDE USA: 1-703-527-3887)
FOR ALL SDS QUESTIONS & REQUESTS, CALL:	1-800-511-MSDS (OUTSIDE USA: 1-423-780-2347)

PRODUCT NAME: AB NAVIGATE**SECTION 1. PRODUCT AND COMPANY IDENTIFICATION**

Supplier Applied Biochemists (WI) W175 N11163 Stonewood Drive , Suite 234 Germantown, WI, 53022 USA Telephone: +12622554449 Telefax: +12622554449 Web: www.appliedbiochemists.com	REVISION DATE: 05/26/2015 SUPERCEDES: 02/15/2007 MSDS Number: 000000024524 SYNONYMS: CHEMICAL FAMILY: None DESCRIPTION / USE: None established FORMULA: None established
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Manufacturer
Advantis Technologies
1200 Bluegrass Lakes Parkway
Alpharetta, GA 30004
United States of America

AVAILABLE AT:
AQUATIC BIOLOGISTS, INC.
N4828 HIGHWAY 45 S.
FOND DU LAC, WI 54937
Ph: (920) 921-6827 Fax: (920) 921-1690
(800) 442-6648

SECTION 2. HAZARDS IDENTIFICATION**GHS Classification**

Eye irritation	:	Category 2A
Carcinogenicity	:	Category 1A
Specific target organ toxicity - repeated exposure	:	Category 2

GHS Label element

Hazard pictograms



Signal word

: Danger

Hazard statements

: H319 Causes serious eye irritation.
 H350 May cause cancer.
 H373 May cause damage to organs through prolonged or repeated exposure.

Precautionary statements

Prevention:

P201 Obtain special instructions before use.
 P202 Do not handle until all safety precautions have been read and understood.
 P260 Do not breathe dust/ fume/ gas/ mist/ vapours/ spray.
 P264 Wash skin thoroughly after handling.
 P280 Wear protective gloves/ protective clothing/ eye protection/ face protection.

Response:

P305 + P351 + P338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 P308 + P313 IF exposed or concerned: Get medical advice/ attention.
 P332 + P313 If skin irritation occurs: Get medical advice/ attention.
 P337 + P313 If eye irritation persists: Get medical advice/ attention.

Storage:

P405 Store locked up.

Disposal:

P501 Dispose of contents/ container to an approved waste disposal plant.

Other hazards

None known.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

<u>CAS OR CHEMICAL NAME</u>	<u>CAS #</u>	<u>% RANGE</u>
Unknown	1929-73-3	24 - 30
Bentonite	1302-78-9	40 - 70
crystalline silica, tridymite	15468-32-3	0 - 1
CRISTOBALITE (SiO ₂)	14464-46-1	0 - 1

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QUARTZ (SIO2)	14808-60-7	0 - 4
calcium lignosulfonate	8061-52-7	0 - 2

SECTION 4. FIRST AID MEASURES

General Advice:	Call a poison control center or doctor for treatment advice. For 24-hour emergency medical assistance, call Arch Chemical Emergency Action Network at 1-800-654-6911. Have the product container or label with you when calling a poison control center or doctor, or going for treatment.
Inhalation:	IF INHALED: Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.
Skin Contact:	IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Eye Contact:	IF IN EYES: Hold eye open and rinse slowly and gently with water for 15-20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye. Call a poison control center or doctor for treatment advice.
Ingestion:	IF SWALLOWED: Call a poison control center or doctor immediately for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

SECTION 5. FIREFIGHTING MEASURES

Flammability Summary (OSHA):	Product is not known to be flammable, combustible, pyrophoric or explosive.
<u>Flammable Properties</u>	
Flash Point:	Not applicable
Fire / Explosion Hazards:	Material will not ignite or burn.
Extinguishing Media:	Use dry chemical, water fog, carbon dioxide (CO ₂), or foam.
Fire Fighting Instructions:	In case of fire, use normal fire-fighting equipment and the personal protective equipment recommended in Section 8 to include a NIOSH approved self-contained breathing apparatus. Use water to cool containers.
Hazardous Combustion Products:	During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Protection for Emergency Situations: Use the personal protective equipment recommended in Section 8 and a NIOSH approved self-contained breathing apparatus.

Spill Mitigation Procedures

Air Release: Keep people away from and upwind of spill/leak.
 Water Release: If the product contaminates rivers and lakes or drains inform respective authorities.
 Land Release: Sweep up and shovel into suitable containers for disposal. Avoid dust generation. After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways.
 Additional Spill Information : Possible need to alert the neighbourhood. Evacuate personnel to safe areas. Use personal protective equipment as required.

SECTION 7. HANDLING AND STORAGE

Handling: Do not take internally. Avoid contact with skin, eyes and clothing. Upon contact with skin or eyes, wash off with water. Avoid inhalation of dust and fumes.
 Storage: Store in a cool, dry and well ventilated place. Isolate from incompatible materials.
 Incompatible Materials for Storage: Refer to Section 10, "Incompatible Materials."

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Ventilation: Local exhaust ventilation or other engineering controls are normally required when handling or using this product to keep airborne exposures below the TLV, PEL or other recommended exposure limit.

Protective Equipment for Routine Use of Product

Respiratory Protection : Wear a NIOSH approved respirator if levels above the exposure limits are possible., Wear a NIOSH approved N95 respirator.
 Skin Protection : Wear impervious gloves to avoid skin contact.
 Eye Protection: Use chemical goggles.
 Protective Clothing Type: impervious clothing
 General Protective Measures: Emergency eyewash should be provided in the immediate work area.

Components with workplace control parameters

Components (CAS-No.)	Value	Control parameters	Basis (Update)
crystalline silica, tridymite (15468-32-3)	TWA	1.2 millions of particles per cubic	Z3 (2000)

SAFETY DATA SHEET

		foot of airThe exposure limit is calculated from the equation, $125/(\%SiO_2+5)$, using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	
	TWA	0.05 mg/m ³ The exposure limit is calculated from the equation, $5/(\%SiO_2+2)$, using a value of 100% SiO ₂ . Lower percentages of SiO ₂ will yield higher exposure limits.	Z3 (2000)
	TWA	0.15 mg/m ³ The exposure limit is calculated from the equation, $15/(\%SiO_2+2)$, using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	Z3 (2000)
CRISTOBALITE (SiO ₂) (14464-46-1)	TWA	0.025 mg/m ³	ACGIH (02 2014)
	TWA	1.2 millions of particles per cubic foot of airThe exposure limit is calculated from the equation, $125/(\%SiO_2+5)$, using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	Z3 (2000)
	TWA	0.15 mg/m ³	Z3 (2000)

		The exposure limit is calculated from the equation, $15/(\%SiO_2+2)$, using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	
	TWA	0.05 mg/m ³ The exposure limit is calculated from the equation, $5/(\%SiO_2+2)$, using a value of 100% SiO ₂ . Lower percentages of SiO ₂ will yield higher exposure limits.	Z3 (2000)
QUARTZ (SiO ₂) (14808-60-7)	TWA	0.025 mg/m ³	ACGIH (02 2014)
	TWA	2.4 millions of particles per cubic foot of air The exposure limit is calculated from the equation, $250/(\%SiO_2+5)$, using a value of 100% SiO ₂ . Lower percentages of SiO ₂ will yield higher exposure limits.	Z3 (2000)
	TWA	0.1 mg/m ³ The exposure limit is calculated from the equation, $10/(\%SiO_2+2)$, using a value of 100% SiO ₂ . Lower percentages of SiO ₂ will yield higher exposure limits.	Z3 (2000)

	TWA	0.3 mg/m ³ The exposure limit is calculated from the equation, $30/(\%SiO_2+2)$, using a value of 100% SiO ₂ . Lower values of % SiO ₂ will give higher exposure limits.	Z3 (2000)
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SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	solid
Form:	No data.
Color:	No data.
Odor:	No data.
Molecular Weight:	None established
pH :	No data.
Boiling Point:	Not applicable
Melting point/freezing point	Not applicable
Density:	
Bulk Density:	no data available ()
Vapor Pressure:	no data available
Vapor Density:	Not applicable
Viscosity:	no data available
Solubility in Water:	insoluble
Partition coefficient n-octanol/water:	No data
Evaporation Rate:	no data available
Oxidizing:	None established
Volatiles, % by vol.:	no data available
VOC Content	This product does not contain any chemicals listed under the U.S. Clean Air Act Section 111 SOCOMI Intermediate or Final VOC's (40 CFR 60.489). This product does not contain any VOC exemptions listed under the U.S. Clean Air Act Section 450.
HAP Content	Not applicable

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity Summary:	Stable under normal conditions.
Conditions to Avoid:	Heat
Chemical Incompatibility:	Strong oxidizing agents, Acids and bases
Hazardous Decomposition Products:	Carbon oxides, Sulphur oxides, Hydrogen chloride
Decomposition Temperature:	No data

SECTION 11. TOXICOLOGICAL INFORMATION

Product Animal Toxicity

Oral LD50 value: LD50 Believed to be approximately 3,000 mg/kg Rat

Dermal LD50 value: LD50 Believed to be > 2,000 mg/kg Rabbit

Inhalation LC50 value: no data available

Skin Irritation: May cause mild skin irritation.

Eye Irritation: This material is expected to be moderately irritating.

Skin Sensitization: This material is not known or reported to be a skin or respiratory sensitizer.

Acute Toxicity: Contact with eyes or skin causes irritation.

Subchronic / Chronic Toxicity: Not known or reported to cause subchronic or chronic toxicity.

Reproductive and Developmental Toxicity: No reproductive or developmental risk to humans is expected from exposure to this product.

Mutagenicity: Not known or reported to be mutagenic.

Carcinogenicity: This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. However, this product contains crystalline silica and cristobalite. Both of these substances are classified by IARC (International Agency for research on Cancer) as group 1 carcinogens (carcinogenic to humans). The carcinogenicity concern arises from inhaling particles of inhalable size. The crystalline silica and cristobalite are carried in a granular clay carrier which has a particle size greater than 10 microns, which is not respirable. Therefore, this product is not an inhalation hazard and exposure would not be expected to pose a carcinogenic hazard. This product is not known or reported to be carcinogenic by any reference source including IARC, OSHA, NTP or EPA. This product contains a component that has been classified by the U.S. EPA as a "Group D" Carcinogen.

CRISTOBALITE (SiO₂) The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 1 substance, Carcinogenic to Humans.

QUARTZ (SiO₂) The International Agency for Research on Cancer (IARC) has classified this product or a component of this product as a Group 1 substance, Carcinogenic to Humans.

SECTION 12. ECOLOGICAL INFORMATION

Overview: Moderately toxic to fish and other aquatic organisms., Highly / very toxic to plants.

Ecological Toxicity Values - Product:

- LC50 Believed to be approximately 1.6 mg/l (calculated)

SECTION 13. DISPOSAL CONSIDERATIONS

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THE MATERIAL. THE USER OF THE MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

Waste Disposal Summary : If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

Disposal Methods : As a nonhazardous solid waste it should be disposed of in accordance with local, state and federal regulations.

SECTION 14. TRANSPORT INFORMATION

DOT
Not dangerous goods

TDG
Not dangerous goods

IATA
Not dangerous goods

IMDG-CODE
Not dangerous goods

SECTION 15. REGULATORY INFORMATION

This chemical is a pesticide product registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals.

Signal word : CAUTION!
Hazard statements : Causes moderate eye irritation.

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

CERCLA Reportable Quantity

Components	CAS-No.	Component RQ (lbs)	Calculated product RQ (lbs)
	1929-73-3	100	362

SARA 302

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

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 does not contain any hazardous air pollutants (HAP), as defined by the U.S. Clean Air Act Section 12 (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).

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 toxic pollutants listed under the U.S. Clean Water Act Section 307

The following Hazardous Substances are listed under the U.S. CleanWater Act, Section 311, Table 116.4A:

27.6 %

The following Hazardous Chemicals are listed under the U.S. CleanWater Act, Section 311, Table 117.3:

27.6 %

US State Regulations

Massachusetts Right To Know

Cristobalite
tridymite

14464-46-1
15468-32-3

Pennsylvania Right To Know

Bentonite	1302-78-9
Quartz (SiO ₂)	14808-60-7

New Jersey Right To Know

Bentonite	1302-78-9
Quartz (SiO ₂)	14808-60-7
Lignosulfonic acid, calcium salt	8061-52-7
Cristobalite	14464-46-1
tridymite	15468-32-3

California Prop 65

WARNING! This product contains a chemical known to the State of California to cause cancer.

tridymite	15468-32-3
Cristobalite	14464-46-1
Quartz (SiO ₂)	14808-60-7

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

TSCA	: This is an EPA registered pesticide.
	: Navigate

Inventories

AICS (Australia), DSL (Canada), IECSC (China), REACH (European Union), ENCS (Japan), ISHL (Japan), KECl (Korea), NZIoC (New Zealand), PICCS (Philippines), TSCA (USA)

SECTION 16. OTHER INFORMATION

SECTIONS REVISED: First formulated version in SAP.
Major References : Available upon request.

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THE INFORMATION IN THIS MSDS SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. ARCH CHEMICALS BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION BUT, MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MSDS IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT ARCH CHEMICALS MSDS CONTROL AT THE PHONE NUMBER ON THE FRONT PAGE TO MAKE CERTAIN THAT THIS DOCUMENT IS CURRENT. .