



Technical Data

DIATOMITE AX-160#

TYPICAL PHYSICAL PROPERTIES

Color	White
Appearance	Powder
Origin Diatomite Description Filter Aid Density	Plankton Marine Flux-Calcined
Dry(lbs/ft3)	12.0
Wet(lbs/ft3)	19.0
150 Mesh Screen Residue , %	10.0
Median Cake Pore Size , Microns	10.0
Permeability , Darcy's	1.4-2.0
PH	9.5-10
Specific Gravity	2.3
Moisture , As Shipped , %	0.1
Loss on Ignitions	0.2
TYPICAL CHEMICAL ANALYSIS , %	
SiO ₂	89.6
Al ₂ O ₃	4.0
Fe ₂ O ₃	1.3
P ₂ O ₅	0.2
TiO ₂	0.2
CaO	0.5
MgO	0.6
Na ₂ O+K ₂ O	3.3

The provided data are average values of indicators in the manufacturing process.

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Product Identification

Synonyms: Diatomaceous Earth; Diatomite; Kieselguhr Soda Ash Flux Calcined

Molecular Weight: Not applicable.

Chemical Formula: Not applicable.

Product Codes: AX 160

Hazards Identification

Emergency Overview

WARNING! HARMFUL IF INHALED. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT.

SAF-T-DATA^(tm) Ratings (Provided here for your convenience)

Health Rating: 4 - Extreme (Irritation Causing)

Flammability Rating: 0 - None

Reactivity Rating: 0 - None

Contact Rating: 1 - Slight

Storage Color Code: Blue (Health)

Potential Health Effects

Inhalation:

Causes dryness and irritation to the respiratory tract. Symptoms may include coughing, sore throat, breathing difficulty (dyspnea), and wheezing. Excessive inhalation may cause decreased pulmonary function, lung damage and silicosis. Acute silicosis is manifested by dyspnea, fever, cough and weight loss. Severe respiratory symptoms may lead to death.

Ingestion:

No adverse effects expected.

Skin Contact:

Causes irritation with dryness and abrasion.

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**Eye Contact:**

Causes irritation, redness, and pain.

Chronic Exposure:

Prolonged inhalation exposure may produce silicosis. Chronic symptoms include cough, dyspnea, wheezing, increased susceptibility to tuberculosis, decreased chest expansion, and repeated nonspecific chest illnesses. Progressive respiratory and cardiopulmonary impairment may be fatal..

Aggravation of Pre-existing Conditions:

Persons with pre-existing respiratory or cardiopulmonary problems may be more susceptible to the effects of this substance.

First Aid Measures

Inhalation:

Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

Ingestion:

Give several glasses of water to drink to dilute. If large amounts were swallowed, get medical advice.

Skin Contact:

Immediately flush skin with plenty of soap and water for at least 15 minutes. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact:

Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

Fire Fighting Measures

Fire:

Not considered to be a fire hazard.

Explosion:

Not considered to be an explosion hazard.

Fire Extinguishing Media:

Use any means suitable for extinguishing surrounding fire.



Special Information:

In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode.

Accidental Release Measures

Ventilate area of leak or spill. Keep unnecessary and unprotected people away from area of spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Pick up and place in a suitable container for reclamation or disposal, using a method that does not generate dust.

Handling and Storage

Keep in a tightly closed container, stored in a cool, dry, ventilated area. Protect against physical damage. When pouring into a container of flammable liquid, ground both containers electrically to prevent a static electric spark. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

Exposure Controls/Personal Protection

Airborne Exposure Limits:

OSHA PERMISSIBLE LIMITS (PELs):

- For silica, amorphous, including natural diatomaceous earth (112926-00-8):

(80 mg/m³) / (%SiO₂), (TWA).

- For silica, crystalline, quartz (14808-60-7):

(30mg/m³)/(%SiO₂ + 2), (TWA), total dust;

(10 mg/m³)/(%SiO₂ + 2), (TWA), respirable fraction;

where "%SiO₂" is the percentage of crystalline silica

determined by airborne samples,

- For silica, crystalline, tridymite (15468-32-3) or cristobalite (14464-46-1):

Use one-half of the quartz exposure limits.



ACGIH THRESHOLD LIMIT VALUES:

- For silica, crystalline, quartz (14808-60-7):
0.025 mg/m³ (TWA), respirable fraction, A2 -
- For silica, crystalline, cristobalite (14464-46-1):
0.025 mg/m³ (TWA), respirable fraction.

Ventilation System:

A system of local and/or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details.

Personal Respirators (NIOSH Approved):

If the exposure limit is exceeded and engineering controls are not feasible, a half-face high efficiency particulate respirator (NIOSH type N100 filter) may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece high efficiency particulate respirator (NIOSH type N100 filter) may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. If oil particles (e.g. lubricants, cutting fluids, glycerine, etc.) are present, use a NIOSH type R or P filter. For emergencies or instances where the exposure levels are not known, use a full-face piece positive-pressure, air-supplied respirator. **WARNING:** Air-purifying respirators do not protect workers in oxygen-deficient atmospheres. Where respirators are required, you must have a written program covering the basic requirements in the OSHA respirator standard. These include training, fit testing, medical approval, cleaning, maintenance, cartridge change schedules, etc.

Skin Protection:

Wear impervious protective clothing, including boots, gloves, lab coat, apron or coveralls, as appropriate, to prevent skin contact.

Eye Protection:

Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

Physical and Chemical Properties

Appearance:

White to gray Powder.

Odor:

Odorless.

Solubility:

Slight (0.1-1%)

Specific Gravity:

2.30

pH:

9.5-10

% Volatiles by volume @ 21C (70F):

0

Boiling Point:

No information found.

Melting Point:

No information found.

Vapor Density (Air=1):

Not applicable.

Vapor Pressure (mm Hg):

Not applicable.

Evaporation Rate (BuAc=1):

No information found.

Stability and Reactivity

Stability:

Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:

No information found.

Hazardous Polymerization:

Will not occur.

**Incompatibilities:**

Reacts with hydrogen fluoride, fluorine, oxygen difluoride, chlorine trifluoride, strong acids, strong bases, and oxidizers.

Conditions to Avoid:

Moisture, extreme heat, and incompatibles.

Ecological Information

Environmental Fate:

When released into the soil, this material is not expected to biodegrade. When released into water, this material is not expected to biodegrade.

Environmental Toxicity:

No information found.

Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

Transport Information

Not regulated.



Regulatory Information

-----\Chemical Inventory Status - Part 1\-----				
Ingredient	TSCA	EC	Japan	Australia
Kieselguhr, Soda Ash Flux-calcined (68855-54-9)	Yes	Yes	No	Yes
Cristobalite (14464-46-1)	Yes	Yes	Yes	Yes
Quartz (14808-60-7)	Yes	Yes	Yes	Yes

-----\Chemical Inventory Status - Part 2\-----				
Ingredient	Korea	--Canada--		
		DSL	NDSL	Phil.
Kieselguhr, Soda Ash Flux-calcined (68855-54-9)	Yes	Yes	No	Yes
Cristobalite (14464-46-1)	Yes	Yes	No	Yes
Quartz (14808-60-7)	Yes	Yes	No	Yes

-----\Federal, State & International Regulations - Part 1\-----				
Ingredient	-SARA 302-		-----SARA 313-----	
	RQ	TPQ	List	Chemical Catg.
Kieselguhr, Soda Ash Flux-calcined (68855-54-9)	No	No	No	No
Cristobalite (14464-46-1)	No	No	No	No
Quartz (14808-60-7)	No	No	No	No

-----\Federal, State & International Regulations - Part 2\-----			
Ingredient	CERCLA	-RCRA-	-TSCA-
		261.33	8 (d)
Kieselguhr, Soda Ash Flux-calcined (68855-54-9)	No	No	No
Cristobalite (14464-46-1)	No	No	No
Quartz (14808-60-7)	No	No	No

Chemical Weapons Convention: No TSCA 12(b): No CDTA: No
 SARA 311/312: Acute: Yes Chronic: Yes Fire: No Pressure: No
 Reactivity: No (Pure / Solid)