

Material Safety Data Sheet

Material Name: ASPLIT® CN POWDER

ID:

*** Section 1 - Chemical Product and Company Identification ***

Product Trade Name ASPLIT CN POWDER

Manufacturer Information

Ergon Armor (601) 933-3540
Corrosion Engineering
P.O. Box 1639 (800) 424-9300
Jackson, MS 39215-1639

*** Section 2 - Composition / Information on Ingredients ***

CAS #	Component	Typical %/wt.	OSHA
7782-42-5	Graphite	85-100	Y
7681-38-1	Sodium Hydrogen Sulfate	1-5	Y
81-04-9	1,5-Naphthalenedisulfonic Acid	1-5	Y
98-59-9	p-Toluene Sulfonyl Chloride	1-5	Y

The substance(s) marked with a "Y" in the OSHA column, are identified as hazardous chemicals according to the criteria of the OSHA Communication Standard (29 CFR 1910.1200)

This material is classified as hazardous under Federal OSHA regulation.

The components of this product are all on the TSCA inventory list.

*** Section 3 - Hazards Identification ***

Emergency Overview:

Black powder-stinging odor

WARNING!

CAUSES EYE, SKIN AND RESPIRATORY TRACT IRRITATION.

MAY BE HARMFUL IF SWALLOWED.

Potential Health Effects:

Graphite

Inhalation and skin contact are expected to be the primary routes of occupational exposure to this material. This material has a low order of acute toxicity, but contact with skin and eyes to excessive dust levels may cause irritation from mechanical abrasion. Short-term overexposure to dusts may cause upper respiratory tract irritation. Chronic overexposure to graphite dusts in mining, milling, and electrode production operations has caused pneumoconiosis, characterized by increased lung fibrosis, shortness of breath, cough, and abnormal breathing. This material contains a small amount of crystalline silica which may cause delayed respiratory disease (silicosis) if inhaled over a prolonged period of time.

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*** Section 4 - First Aid Measures ***

Eye Contact:

Immediately flush with plenty of water. Get medical attention if irritation persists.

If On Skin

Immediately flush with plenty of water. Remove contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Ingestion:

Induce vomiting as directed by medical personnel. Get medical attention. NEVER GIVE ANYTHING BY MOUTH TO AN UNCONSCIOUS PERSON.

Inhalation:

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

*** Section 5 - Fire Fighting Measures ***

Flash Point: N/A

Method Used: N/A

Flammability Classification: N/A

Upper Flammable Limit (UFL): N/A

Lower Flammable Limit (LFL): N/A

Fire & Explosion Hazards:

Auto-Ignition Temperature - N/A

Flash Point (Flash Point Method) - N/A

Flammable Limits- Upper - N/A

Lower - N/A

Extinguishing Media

Use water spray, water fog, carbon dioxide or dry chemical

Fire Fighting Instructions

Fire fighters and others who may be exposed to products of combustion should wear full fire fighting turn out gear (full Bunker Gear) and self-contained breathing apparatus (pressure demand NIOSH approved or equivalent). Fire fighting equipment should be thoroughly decontaminated after use.

Fire and Explosion Hazards

Avoid breathing fumes from fire-exposed material. Carbon fillers may intensify fire.

*** Section 6 - Accidental Release Measures ***

Spill or Leak

Avoid creating dust in handling, transfer or clean up. Contain spill. Sweep or scoop up and remove to suitable container. Consult a regulatory specialist to determine appropriate state or local reporting requirements, for assistance in waste characterization and/or hazardous waste disposal and other requirements listed in pertinent environmental permits.

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*** Section 7 - Handling and Storage ***

Handling Procedures:

Do not breathe dust. Keep container closed. Use only with adequate ventilation. Do not get in eyes, on skin or clothing. Wash thoroughly after handling.

Storage Procedures:

Store in a cool, dry place. Avoid excessive heat. Store out of direct sunlight in a cool, well-ventilated place.

*** Section 8 - Exposure Controls / Personal Protection ***

Component Exposure Limits

Graphite

ACGIH (TWA): 2 mg/m³

p-Toluene Sulfonyl Chloride

WEEL (Ceiling): 5 mg/m³

-Only those components with exposure limits are printed in this section.

-Skin contact limits designated with a "Y" above have skin contact effect. Air sampling alone is insufficient to accurately quantitate exposure. Measures to prevent significant cutaneous absorption may be required.

-ACGIH Sensitizer designator with a value of "Y" above means that exposure to this material may cause allergic reactions.

Engineering Controls:

Investigate engineering techniques to reduce exposures below airborne exposure limits. Provide ventilation if necessary to control exposure levels below airborne exposure limits (see below). If practical, use local mechanical exhaust ventilation at sources of air contamination such as open process equipment. Consult ACGIH ventilation manual or NFPA Standard 91 for design of exhaust systems.

PERSONAL PROTECTIVE EQUIPMENT

As prescribed in the OSHA Standard for Personal Protective Equipment (29 CFR 1910.132), employers must perform a Hazard Assessment of all workplaces to determine the need for, and selection of, proper protective equipment for each task performed.

Eyes/Face Protective Equipment:

Where there is potential for eye contact, wear chemical goggles and have eye-flushing equipment available.

Skin Protection:

Wear appropriate chemical resistant protective clothing and chemical resistant gloves to prevent skin contact. Consult glove manufacturer to determine appropriate type glove material for given application. Rinse contaminated skin promptly. Wash contaminated clothing and clean protective equipment before reuse. Wash skin thoroughly after handling.

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Respiratory Protection:

When airborne exposure limits are exceeded (see below), use NIOSH approved respiratory protection equipment appropriate to the material and/or its components. Consult respirator manufacturer to determine appropriate type equipment for given application. Observe respirator use limitations specified by NIOSH or the manufacturer. For emergency and other conditions where exposure limit may be significantly exceeded, use an approved full-face positive-pressure, self-contained breathing apparatus or positive-pressure airline with auxiliary self-contained air supply. Respiratory protection programs must comply with 29 CFR § 1910.134.

*** Section 9 - Physical & Chemical Properties ***

Physical State:	Solid	Appearance:	Dark grey to black powder
Odor:	None	Vapor Pressure:	Nil
Vapor Density:	N/A	Boiling Point:	N/E
Melting Point:	N/A	Specific Gravity:	N/A
pH:	N/A	Viscosity:	N/A
VOC:	NONE	Solubility Water:	Insoluble

*** Section 10 - Chemical Stability & Reactivity Information ***

Chemical Stability:

This material is chemically stable under normal and anticipated storage and handling conditions.

Incompatibility:

Strong acids, strong alkalis and strong oxidizers, contact with these materials may result in an exothermic reaction characterized by heat and splattering of the chemicals. Avoid heat and flames.

Decomposition Products:

Oxides of carbon and sulfur.

Hazardous Polymerization:

Hazardous polymerization is not known to occur.

*** Section 11 - Toxicological Information ***

Acute Toxicity:

A: General Product Information

No information available for the product.

B: Component Analysis - LD50/LC50

Data on this material and/or its components are summarized below

Graphite

Numerous epidemiology studies and case reports of individuals exposed to dusts of this material suggest that the lung is the primary target organ. Workers in mining, milling, grinding and carbon electrode manufacture with this material have developed pneumoconiosis associated with inhalation of this material. Generally, the lung pathology is described as fine

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nodules that are dispersed throughout the lungs. In severe cases, shortness of breath, clubbing of fingers and reduction of respiratory function are often observed and fibrotic changes may be progressive even after exposure is discontinued. Although it is generally assumed that the primary agent was low level inhalation of silica which is present in this material, some studies have suggested that this material alone was the causative agent for pneumoconiosis. The pneumoconiosis associated with this material has been reported to resemble coal worker's pneumoconiosis. Epidemiology studies in workers manufacturing carbon products of this material showed no significant increase in respiratory cancer. In rats, intratracheal injection or inhalation of dust shows a weak fibrogenic response in the lungs in comparison to silica. Exposure of rats to 100 mg/m³ (4-hrs/day for 4-days) showed only mild alterations in lung enzymes indicative of fibrogenic activity compared to quartz.

*** Section 12 - Ecological Information ***

Ecotoxicity:

A: General Product Information

No information available for the product.

B: Component Analysis - Ecotoxicity - Aquatic Toxicity

Data on this material and/or its components are summarized below.

Graphite

Because this material is a relatively inert substance and is insoluble in water, it is not expected to pose significant ecological hazards. The environmental persistence of this material would be primarily based on its physical form, that is, fine particles of this material could be dispersed in the environment by wind and water, while large particles would persist with little dispersion.

Environmental Fate:

No data are available.

*** Section 13 - Disposal Considerations ***

US EPA Waste Numbers & Descriptions:

A: General Product Information

Recover, reclaim or recycle when practical. Dispose of in an approved landfill if allowed locally. Comply with federal, state, and local regulations. Dispose of in a permitted waste management facility if landfill is not practical.

Note: Chemical additions to, processing of, or otherwise altering this material may make this waste management information incomplete, inaccurate, or otherwise inappropriate. Furthermore, state and local waste disposal requirements may be more restrictive or otherwise different from federal laws and regulations.

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B: Component Waste Numbers

No EPA Waste Numbers are applicable for this product's components.

*** Section 14 - Transportation Information ***

US DOT Information

Shipping Name: Not Regulated By DOT

*** Section 15 - Regulatory Information ***

US Federal Regulations

A: General Product Information

This product is considered hazardous under 29 CFR 1910.1200 (Hazard Communication).

B: Component Analysis

None of this product's components are listed under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65), or CERCLA (40 CFR 302.4).

SARA 311/312: Acute: Y Chronic: Y Fire: N Pressure: N Reactive: N

State Regulations

A: General Product Information

No additional information available.

B: Component Analysis – State

The following components appear on one or more of the following state hazardous substances lists:

Component	CAS #	PA	NJ	MA
Graphite	7782-42-5	Yes	Yes	Yes
Sodium Hydrogen Chloride	7631-38-1	Yes	Yes	Yes
1,5-Naphthalenedisulfonic acid	81-04-9	Yes	Yes	Yes
p-Toluene Sulfonyl Chloride	98-59-9	Yes	Yes	Yes

Other Regulations

A: General Product Information

All components are on the U.S. EPA TSCA Inventory List.

B: Component Analysis – Inventory/Component Analysis – Inventory

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Component	CAS #	TSCA	EINECS	DSL
Graphite	7782-42-5	Yes	Yes	Yes
Sodium Hydrogen Chloride	7631-38-1	Yes	Yes	Yes
1,5-Naphthalenedisulfonic acid	81-04-9	Yes	Yes	Yes
p-Toluene Sulfonyl Chloride	98-59-9	Yes	Yes	Yes

C: Component Analysis - WHMIS IDL

The following components are identified under the Canadian Hazardous Products Act Ingredient Disclosure List:

Component	CAS #	Minimum Concentration
Graphite	7782-42-5	1 %/wt
Sodium Hydrogen Chloride	7631-38-1	1 %/wt
1,5-Naphthalenedisulfonic acid	81-04-9	1 %/wt
p-Toluene Sulfonyl Chloride	98-59-9	1 %/wt

*** Section 16 - Other Information ***

Key/Legend

EPA = Environmental Protection Agency; TSCA = Toxic Substance Control Act; ACGIH = American Conference of Governmental Industrial Hygienists; IARC = International Agency for Research on Cancer; NIOSH = National Institute for Occupational Safety and Health; NTP = National Toxicology Program; OSHA = Occupational Safety and Health Administration; NFPA = National Fire Protection Association; HMIS = Hazardous Material Identification System; CERCLA = Comprehensive Environmental Response, Compensation and Liability Act; SARA = Superfund Amendments and Reauthorization Act

The information presented herein is believed to be factual as it has been derived from the works and opinions of persons believed to be qualified experts; however, nothing contained in this information is to be taken as a warranty or representation for which Ergon Armor bears legal responsibility. The user should review any recommendations in the specific context of the intended use to determine whether they are appropriate.