

MATERIAL SAFETY DATA SHEET

PRODUCT NAME: 'abil-strength'[®] Powder

'ABIL-STRENGTH' POWDER is regarded as being neither toxic or dangerous according to existing laws and regulations (Imco code, RID, ADR, ADNR, EEC, FDA, ACTDG etc.) However, the normal precautions for the safe handling and storage of chemicals should be observed.

PRODUCT IDENTIFICATION

U.N. Number: Not Applicable	D.G. Class: Not Applicable	CAS No: Not Applicable.
Hazchem: Not Applicable	Sub Risk: Not Applicable	Poisons: Not Applicable
G.T. EPG: Not Applicable	Spec. EPG: Not Applicable	Pack. Grp: Not Applicable

TRADE NAME: 'abil-strength'[®] Powder.

USE:

'abil-strength'[®] Powder is a modern super polymer modifier, acrylic based, re-dispersible powder for cement and plaster based compounds. It may be considered for use after due trials as an admixture for concrete mortars and all products, preparations and building materials based on hydraulic binders such as Portland Cement, as well as possibly Gypsum plaster, high alumina and magnesium oxychloride cements, etc. 'abil-strength'[®] Powder can considerably increase bond strength to the substrate and of the cementitious binder to aggregates/fillers, as well as flexural, tensile, impact and compressive strengths, proportional to the dose rate to reduce or eliminate cracking, increase load bearing potential in thinner sections, increase durability and extend the uses and performances of these historical building materials.

SYNONYMS: 'SUPER-POL' powder additive.

PHYSICAL DESCRIPTION/PROPERTIES:

APPEARANCE:	White or grey powder: pH7.0-10.0
FLASH POINT:	Not Applicable
AUTO IGNITION TEMP:	222°C/433°F
LOWER EXPLOSION LIMIT (%):	0.1 oz/ft ³
UPPER EXPLOSION LIMIT (%):	1.0 oz/ft ³
DECOMPOSITION TEMP:	177°C/350°F
VISCOSITY:	Not Applicable
MELTING OR FREEZING POINT:	No Data
BOILING POINT:	Not Applicable
VAPOUR PRESSURE:	Not Applicable
VAPOUR DENSITY:	Not Applicable
EVAPORATION RATE:	Not Applicable

SPECIFIC GRAVITY:	Not Applicable
PERCENT VOLATILE (BY WEIGHT):	Not Applicable
pH:	7.0-10.0
SOLUBILITY IN WATER:	Partially soluble. Disperses in most aqueous systems
BULK DENSITY:	40lb/cu ft. Average size of powder particles;<40 microns
ODOUR:	Faint/Pinene

CHEMICAL CONSTITUTION:

	<u>Approx W/W%</u>		<u>PRH</u>	<u>TWA/TLV</u>	
				<u>OSHA</u>	<u>ACGITH</u>
Acrylic polymer	Trade secret	40-50	2	5	NEmg/M3-Resp
Calcium carbonate & other non hiding white					
Extender minerals/pigments	1317-65-3	50-60	5	5	NEmg/M3-Resp
Individual residual monomers	Not Required	0.05	NR	NR	NR

(NR = Not Required NE = Not Established)

HEALTH HAZARD INFORMATION

ACUTE EFFECT:

<u>Eyes:</u>	Dust particles, and monomer vapours from heated product, can irritate the eyes.
<u>Skin:</u>	Dust particles can irritate the skin upon prolonged or repeated contact.
<u>Inhalation:</u>	Inhalation of monomer vapours from heated product can cause irritation, nausea, headache and dizziness. Dust particles can irritate the nose, throat, and upper respiratory tract.
<u>Swallowed:</u>	No data available.
<u>Chronic Effects:</u>	Prolonged or repeated skin contact may cause sensitisation.

FIRST AID:

<u>Eye & Skin contact:</u>	Flush eyes with continuous amounts of clean water for at least 15 minutes. See a doctor/physician if irritation persists. Wash affected skin areas with soap and water.
<u>Inhalation:</u>	Move subject to fresh air.
<u>Ingestion:</u>	If swallowed, dilute by giving two (2) glasses of water to drink. See a doctor/physician. Never give anything by mouth to an unconscious person.
<u>Other First Aid:</u>	Cover any wound with clean dressing.
<u>Advice to Doctors:</u>	No data available.
<u>Toxicity Data:</u>	Listed for a similar modified resin – Acute oral LD50 (rat): >5g/mg; Acute dermal LD50 (rabbit): >5g/kg; Acute inhalation one (1) hour (rat): dust generated at medium concentration of 1.84 mg/litre was not fatal to any of the 10 test animals; Skin (rabbit): slightly irritating; Eye (rabbit): slightly irritating.
<u>Reactivity Data:</u>	Stability: Stable.

PRECAUTIONS FOR USE

<u>Conditions to Avoid:</u>	Decomposition is dependent on temperature and time. Onset of polymer decomposition is 177°C. Hazardous decomposition products: None known. (See Miscellaneous Information).
<u>Exposure Standards:</u>	Although no Threshold Limit Value TLV has been assigned for this product we recommend the following for nuisance dusts; TLV (Particulates Not Otherwise Classified): 10 mg/m ³ .
<u>Engineering Controls:</u>	Ensure workplace is well ventilated. Adequate ventilation should be maintained when handling heated products. Hot vapours and dusts should not be inhaled.
<u>Personal Protection:</u>	The following personal protective equipment is recommended: .../3.

Safety Goggles
 Protective Gloves (cotton or canvas)
 Air purifying dust respirator OSHA/MIOSH/AS approved or equivalent
 Non-flammable.

Flammability:**Environment:**

If introduced in concentrations up to 200 mg/litre, this chemical substance should not affect the decomposing activity of the activated sludge in an operating biological water treatment plant.

Other Precautions:

Avoid dust formation. Wear an approved respirator when handling large amounts of product without dust extraction plant. The precautionary measures normally applied when handling chemicals are to be observed.

PLEASE NOTE CAREFULLY – MISCELLANEOUS INFORMATION

This material is a solid polymer in the form of fine particles that can cause a dust hazard during handling and processing. Grinding or milling can generate static electricity. To prevent dust explosions, employ bonding, grounding and venting for all grinding, rolling and mixing operations. All thermoplastic materials release some vapours at high temperatures. Low levels of monomer vapours can develop when this material is heated during processing.

SAFE HANDLING INFORMATION

Storage & Transport:

Store at ambient temperature in a dry area. Avoid accumulation of dust on equipment. Prolonged exposure of polymer to hot surfaces presents a potential fire hazard. Storage temperature range: 1°C to 49°C. Decomposition is dependent on time and temperature. Onset of polymer decomposition is 177°C. Avoid contact with ignition sources.

Packaging & Labelling:

No special requirements.

Spills & Disposals:

Keep spectators away. Eliminate ignition sources. Wear suitable dust respirator or equivalent. Scoop or shovel solid material into a suitable container for recovery or disposal in an approved land fill area. Keep dust to a minimum.

Fire/Explosion Hazard:

Fire extinguishing method: Wear self-contained breathing apparatus and full protective wear. Use water sprays to cool containers. Do *not* use a solid stream of water as a solid stream of water can cause a dust explosion. CO₂ and Dry Chemical extinguishers may be used. Burns vigorously with intense heat. Minimum ignition temperature of dust cloud is 549°C. Airborne dusts can explode if ignited. See also **Miscellaneous Information – above**. Flash Point: Not Applicable.

Other Safe Handling:

Wash hands before work breaks and at the end of the working day.

Employees of Ability Building Chemicals Co., have not experienced any harmful effects during normal handling and production.

CONTACT POINTS:

EMERGENCY PHONE NUMBER: (03) 9457 6488

For additional non-emergency information contact the Public Officer on (03) 9457 3543.

This information is based on our present level of knowledge. It is therefore subject to possible change and therefore cannot be guaranteed.