



MATERIAL SAFETY DATA SHEET

ALU WEAR PROTECT PART B (HARDENER) QUICKSET

COMPANY DETAILS

Company:	Direct Mining Solution (Pty) Ltd
Trade name:	Africa Operations Solutions
Address:	19 Foreman Street Spartan
Telephone:	(011) 392-6006
Facsimile:	(013) 392-6003

IDENTIFICATION

Product Name:	Alu Wear Protect Trowelable, (Part B)
Other Names:	Diethylenetriamine
Manufacturer's Code:	ALW003
UN Number:	2735
Dangerous Goods Class and Subsidiary Risk:	Class 8 Packaging GP III
Proper Shipping Name:	Polyamines, liquid, corrosive, n.o.s. Diethylenetriamine
Use:	Epoxy resin curing agent. Used in formulation with other substances to improve the wet strength of paper. Also used in preparation of surfactant and softener formulations.

PHYSICAL DESCRIPTION/PROPERTIES

Appearance:	Clear liquid
Color:	Light straw color
Odor:	Ammonia like odor
Relative Density:	1.03 ± 0.03 (approximate)
Solubility in water:	not miscible
Flash Point:	104 deg C. (C.O.C)
Volatile (Wt.) %:	negligible at 20 deg C.

OTHER PROPERTIES

Not applicable.

INGREDIENTS

Chemical Identity:	CAS Number:	Concentration (%):
N-(2-aminoethyl)-1,2-ethanediamine	111-40-0	<70
Phenol, 4,4'-(1-methylethylidene)bis-	80-05-7	>30
Silane		<2%

HEALTH HAZARD INFORMATION

HEALTH EFFECTS:

Swallowed:	Harmful if swallowed.
Eye:	May cause eye damage. Causes serious eye irritation.
Skin:	Harmful in contact with skin. Causes severe skin burns. May cause allergic skin reaction.

TOXICOLOGICAL INFORMATION

Reported Human Effects:	No human toxicity studies have been carried out with this product.	
Reported Animal Effects:	Oral (rat) LD50	>1000mg/kg (calculated)
	Inhalation (rat) LD50	not determined
	Skin (rabbit) LD50	not determined
Skin and Eye Irritation:	May cause irritation to skin and eyes.	
Chronic Toxicity:	No information.	
Sensitizing:	May cause sensitization by skin contact.	
Carcinogenicity Information:	IARC: Group 4.	ACHIH: A5.
Reproductive Effects:	No studies on reproductive effects have been carried out with this product.	
Mutagenicity/Genotoxicity Info:	No mutagenicity studies have been carried out with this product.	

FIRST AID:

Eyes:	Remove contact lenses. Hold eyelids apart. Immediately flush eyes with plenty of low-pressure water for at least 15 minutes. Get immediate medical attention.
Skin:	Wash thoroughly with soap and water. Remove contaminated clothing. Thoroughly wash clothing before reuse. Render unusable and discard contaminated shoes and leather articles.
Inhalation:	Remove to fresh air. Give artificial respiration. If breathing is difficult, give oxygen. Get immediate medical attention.
Ingestion:	If conscious, drink large quantities of water. Induce vomiting. Call a physician or poison control centre immediately. NEVER give anything by mouth to an unconscious person. NEVER induce vomiting in an unconscious person.

PRECAUTIONS FOR USE

EXPOSURE STANDARDS:

None established.

ENGINEERING CONTROLS:

Use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

PERSONAL PROTECTION:

Respiratory Protection:

Use of an approved respirator. Selection of air purifying or positive-pressure supplied air will depend on the specific operation and the potential airborne concentration of the material. For emergency conditions use an approved positive pressure self contained breathing apparatus.

Skin Protection:

Use protective clothing impervious to this material. Selection of specific items such as face shield, gloves, boots, apron or full body suit will depend on the operation.

Eye/Face Protection:

Use approved chemical goggles. Wear a face shield which allows the use of chemical goggles, or wear a full face respirator to protect face and eyes when there is any likelihood of splashes. Eye wash should be located in the immediate work area.

SAFE HANDLING INFORMATION

General Measures:

Do not pressurize or expose containers to heat, flame, sparks, static electricity or other sources of ignition. Store in a cool, dry place: approximately 68 deg. F (20 deg C.). Store only in department of transportation approved containers. Check old product for deterioration regularly.

Materials & Conditions to Avoid:

Avoid storing product near incompatible materials. See section 10. Do not store near flammable materials. Do not keep deteriorated or salvaged product. Keep away from heat, flame, sparks, and other ignition sources. Do not store in direct sunlight or expose to UV radiation.

Accidental Release Measures:

Clean up spills immediately using soft natural bristle brush and conductive rubber or conductive plastic shovel. Use caution; material is sensitive to initiation from sources such as heat, flame, shock, friction, or sparks. In case of accidental spill or release, refer to section 8, Personal Protective Equipment and General Hygiene Practices.

Waste Disposal Methods:

Disposal of waste and resin should be carried out under the direct supervision of a qualified person. For industrial disposal, federal hazardous waste regulations allow open burning of wastes in permitted facilities. Burn in the open in an isolated location in small, shallow piles not over an inch deep. Stay upwind. Do not breathe products of combustion. State or local regulations may be more stringent than federal regulations. For disposal of small quantities, contact state or local environmental agencies for options.

Fire Fighting Procedures:

Evacuate area immediately. Do not fight fire.

Extinguishing Media:

Deluge with large quantities of water as quickly as possible by automatic sprinklers or fire hose from a protected location. Product is self-oxidizing.

Conditions to avoid:

Avoid impact, friction, heat, sparks, or flame.

Hazardous Combustion Products:

If heated to combustion, the following substances may be formed: carbon monoxide, carbon dioxide, nitrogen, water, hydrogen, nitrogen oxides, methane, aldehydes, carboxylic acids, and hydrogen cyanide.