
Monarch Ceiling Panels - Material Safety Data Sheet

Trade name: Monarch Ceiling Panels
 Manufacturer: Above View Tiles, Inc.
 Address: 4750 South 10th Street, Milwaukee, WI 53221
 Phone: 414-744-7118
 Fax: 414-744-7119

Part A – Fiber Glass
 Part B – Perlite
 Part C – Gypsum
 Part D – Vermiculite

PART A – FIBER GLASS

Section I - Supplier Information

Trade name: Monarch Ceiling Panels
 Chemical family:
 Manufacturer: CertainTeed.
 Address: P.O. Box 860, Valley Forge, PA 19482
 Phone: 215-341-7000
 Fax:

 Emergency
 Telephone Contact: 215-341-7000
 Date Prepared: 11/6/03
 Distributor: Chicago Metallic Corp.
 Address: 4849 S. Austin Avenue, Chicago, IL 60638
 Phone: 800-323-7164

Section II –Ingredients

Chemical Name (CAS No.)	Common Name	Exposure Limits	%
Fibrous Glass (CAS None)	Fiber Glass	<u>OSHA Nuisance Dust PEL</u> Total Dust 15 mg/m ³ or 50 mppcf Respirable Dust 5mg/m ³ or 15 mppcf <u>ACGIH Fiber Glass Dust</u> 10 mg/m ³	ca 98

Section III – Physical Data

Boiling Point: N/A
Vapor Density (Air = 1): N/A
Vapor Pressure: N/A
Odor: None
% Volatile by Volume: None
% Solubility (Hx0): Negligible
Melt Point: ca 1275° C
Specific Gravity: 2.6
Appearance: Fibers assembled into rovings, mats, yarns, fabrics, chopped strands

Section IV – Fire and Explosion Hazard Data

Flash Point & Method: N/A
Flammable Limits: LEL: N/A UEL: N/A
Extinguishing Media: Use that which is applicable to surrounding fire.
Special Fire Fighting Procedures: Firefighters must wear full protective gear including eye protection and self-contained breathing apparatus.
Unusual Fire and Explosion Hazard: Size materials may thermally decompose or burn emitting toxic fumes or smoke.

Section V – Health Effects

Primary Routes of Entry: Inhalation, skin and eye contact
Carcinogens: No
IARC: No
NTP: No
OSHA: No

Acute Effects: Exposure to fibrous glass may cause temporary skin, eye and upper respiratory irritation.
Chronic Effects: None known
Medical Conditions Aggravated by Exposure: None known

Section VI – Emergency and First Aid Procedures

Eye Contact: Flush well with running water for at least 15 minutes. Get medical attention if irritation persists.
Skin Contact: Cleanse with soap and warm water. Get medical attention if irritation persists.
Upper Respiratory Irritation: Remove from exposure. Get medical attention if irritation persists.

Section VII – Physical Hazards

None

Section VIII – Special Protection Information

Ventilation: Use local exhaust ventilation to avoid dispersal of dust.
Respiratory: Where dust is not controlled, use a respirator approved for nuisance type dusts.
Eye Protection: Wear eye protection when handling and applying.
Other: Protect the skin with cap and loose fitting, long-sleeved outerwear. Barrier creams may also provide additional protection.
other Caution workers to wash clothes separately and to rinse the washer. Fibers can be deposited in wash on clothing of family members. Establish good housekeeping practices to prevent accumulation of fibrous glass dust. Keep wastes in covered containers.

Section IX – Reactivity

This is a stable material.

The size materials may thermally decompose or burn at high temperatures and emit toxic fumes and/or smoke containing carbon dioxide, carbon monoxide.

Section X – Storage Information

Store, handle and use fiber glass products in a manner that will minimize dust generation.

Section XI – Spill, Leak and Disposal Information

Prevent spread of fibrous glass particulates and avoid dust-generating conditions. Collect by vacuum or wet methods. Those involved in cleanup must use protection against skin and eye contact and inhalation of particulates.

Waste disposal method:

Scrap material should be disposed of in a sanitary landfill in accordance with federal, state and local regulations.

Section XII – Additional Comments

When glass fiber is used as reinforcement in plastic materials, caution must also be exercised with the resin and curing catalysts employed and the mixing process used to disperse the fiber in the resin. When the glass fiber reinforced material is abraded or machined, control of the released dust must be established.

PART B - PERLITE

Section I - Supplier Information

Trade name: Monarch Ceiling Panels
Chemical family:
Manufacturer: Silbrico Corporation
Address: 6300 River Road, Hodgkins, IL 60525
Phone: 708-354-3350
Fax:

Emergency 708-354-3350
Telephone Contact: 708-354-3350
Date Prepared:
Distributor: Chicago Metallic Corp.
Address: 4849 S. Austin Avenue, Chicago, IL 60638
Phone: 800-323-7164

Section II – Hazardous Ingredients/Identity Information

Hazardous Components (Specific Chemical Identity; Common Name(s))	OSHA PEL	ACGIH RLV	Other Limits Recommended	% (optional)
Expanded Perlite	15 mg/m ³ Total Dust	10 mg/m ³		100%
CAS 93763-70-3	5 mg/m ³ Respirable Dust			
May Contain Crystalline				
Silica – Quartz	0.1 mg/m ³	0.1 mg/m ³		Typical Analysis <0.1%
CAS 14808-60-7	For Respirable Quartz	For Respirable Quartz		

Perlite is a naturally occurring substance and is therefore included, but not individually listed, in the TSCA inventory.
HMIS Ratings: Health: 0; Flammability: 0; Reactivity: 0; Personal Protection: E, 0 = Minimal Hazard

Section III – Physical/Chemical Characteristics

Boiling Point: N/A
Specific Gravity (H₂O = 1) 2.35
Vapor Density (mm Hg): N/A
Melting Point: N/A
Vapor Density (AIR = 1) N/A
Evaporation Rate:
(Butyl Acetate = 1) N/A
Solubility in Water: Negligible
Appearance and Odor: Dry White Powder or Aggregate – No Odor

Section IV – Fire and Explosion Hazard Data

Flash Point (Method Used): Non-Flammable
Flammable Limits: N/A
LEL: N/A
UEL: N/A
Extinguishing Media: N/A
Special Fire Fighting Procedures: None
Unusual Fire and
Explosion Hazards: No Hazard

Section V – Reactivity Data

Stability:	Unstable
	Stable X
Conditions to Avoid:	N/A
Incompatibility (Materials To Avoid):	Hydrofluoric Acid
Hazardous Decomposition Or Byproducts:	May React with Hydrofluoric Acid to Form Toxic Gas
Hazardous Polymerization:	May Occur
	Will Not Occur X
Conditions to Avoid:	N/A

Section VI – Health Hazard Data

Route(s) of Entry:	Inhalation: Yes
	Skin: No
	Ingestion: No
Health Hazards (Acute Or Chronic):	Accute: Upper Respiratory Irritant, Excessive Inhalation of any Dust May Overload Lungs. Chronic: None known.
Carcinogenicity:	NTP: No
	IARC Monographs: No
	OSHA Regulated: No
Signs and Symptoms Of Exposure:	Upper Respiratory and Eye Irritant
Medical Conditions Generally Aggravated By Exposure:	Pre-Existing Upper Respiratory and Lung Diseases
Emergency and First Air Protection:	Inhalation – Remove to Fresh Air
	Eyes – Flush with Large Quantities of Water

Section VII – Precautions for Safe Handling and Use

Steps to be Taken in Case Material is Released Or Spilled:	Vacuum Clean or Sweep with the Aid of a Dust Suppressant
Waste Disposal Method:	Non-Hazardous as Defined by RCRA (40 CFR Part. 261). Dispose of in Approved Landfill. RQ – N/A
Precautions to be Taken In Handling and Storing:	Handle to Avoid Creating Dust.
Other Precautions:	Keep Dust Concentrations below PEL/TLV and use Proper Respiratory Protection.

Section VIII – Control Measures

Respiratory Protection (Specify Type):	Use NIOSH Approved Respirators
Ventilation:	
Local Exhaust:	To Keep Concentrations below PEL/TLV
Special:	None
Mechanical General):	To Keep Concentrations below PEL/TLV
Other:	None
Protective Gloves:	Not Normally Required
Eye Protection:	NIOSH Approved Goggles Recommended
Other Protective Clothing Or Equipment:	None
Work/Hygienic Practices:	Repair Broken Bags Immediately, Avoid Creating Dust
Storage Segregation Hazard Classes:	N/A

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith compliance with federal and state laws. However, NO WARRANTY or REPRESENTATION concerning such information is intended or given.

PART C - GYPSUM

Section I - Supplier Information

Trade name: Monarch Ceiling Panels
Chemical family:
Manufacturer: United States Gypsum Company
Address: 101 S. Wacker Drive, Chicago, IL 60606-4385
Phone:
Fax:

Emergency
Telephone Contact: 312-606-4542
Date Prepared:
Distributor: Chicago Metallic Corp.
Address: 4849 S. Austin Avenue, Chicago, IL 60638
Phone: 800-323-7164

Section II

PRODUCT GROUP: HYDROCALS*: Primary Groups

Dental and Orthopedic HYDROCALS:

HYDROCAL* White	HYDROCAL* X-21	HYDROCAL* A-base
HYDROCAL* J & J	HYDROCAL* B-base	HYDROCAL* SN
HYDROCAL* C-base	HYDROCAL* 105	HYDROCAL* AC
HYDROCAL* V & V	HYDROCAL* 106	HYDROCAL* C-base Yellow
HYDROCAL* REV	HYDROCAL* LP 105	HYDROCAL* Marvel Special

HYDROCAL* GYPSUM CEMENT WFS-25

LOW Expansion HYDROCAL*:

ULTRACAL* 30	BAKAL* Model Plaster
ULTRACAL* 60	MERCURY* Model Plaster
ULTRACAL* 30, Red	
ULTRACAL* 60, Red	

Multipurpose HYDROCAL* Products:

HYDROCAL* Medium Hi Expansion
HYDROCAL* Boeing Special
HYDROCAL* Gray
Pattern Shop HYDROCAL*
HYDROCAL* Brown General Purpose Gypsum Cement
Building Grade HYDROCAL*
HYDROCAL* LR Gypsum Cement
HYDROCAL* FGR-95 Gypsum Cement
HYDROCAL* FGR-95 LE Gypsum Cement
HYDROCAL* F.G.R. L.S.S.
HYDROCAL* CG Gypsum Cement
HYDROCAL* MG Gypsum Cement
Statuary HYDROCAL*
HYDROCAL* CT
Statuary HYDROCAL* S.C.
HYDROCAL* Stm
Ocean Wash HYDROCAL* 2000
MD-89 Tooling

GARONITE* Products:

GARONITE* SC-104

COECAL* Products:

COECAL* 105
COECAL* 106
COE* SUPERCAL

* - Trademark of United States Gypsum Company or an affiliated company

CHEMICAL FAMILY: Ca504 – 1/2H20

Section III – Ingredients

MATERIALS	%	PEL mg/m ³	TLV mg/m ³	CAS No.
Plaster of Paris	90-100	10	15/5 (R)	7778-18-9
Portland Cement	0-8	10	15/5 (R)	65997-15-1
Ammonium Naphthalone Sulfonate	0-4	(NE)	(NE)	9069-80-1
Polyvinyl Alcohol	0-4	(NE)	(NE)	9002-89-5
Starch	0-2	10	15/5 (R)	9005-25-8
Iron Oxide Colorant	0-2	(NE)	(NE)	1309-37-1
Potassium Sulfate	0-1	(NE)	(NE)	7778-80-5
Hydrolyzed Protein	0-1	(NE)	(NE)	65997-21-9
Aluminum Foil-Scrim-Poly	0-1	(NE)	(NE)	7429-90-5
Sodium Pot. Tartrate	0-0.8	(NE)	(NE)	304-59-6
Pot. Naphthalene Sulfonate	0-0.6	(NE)	(NE)	9069-79-8
Petroleum Distillate	0-0.6	5 (M)	5 (M)	64741-89-5
Melamine Resin	0-0.5	(NE)	(NE)	68002-20-0
Sodium Citrate	0-0.5	(NE)	(NE)	77-92-9
Ammonium Chloride	0-0.4	10 (F)	(NE)	12125-02-9
Lime (Hydrated)	0-0.4	5 (T)	5 (T)	39445-23-3
Aluminum Sulfate	0-0.3	2 (T)	2 (T)	10043-01-3
Succinic Anhydride	0-1	(NE)	(NE)	108-30-5
Tributyl Phosphate	0-0.1	2.5 (T)	2.5 (T)	126-73-8
Hydroxypropylmethyl-Cellulose	0-(Tr)	(NE)	(NE)	9004-65-3

(T) Total (R) Respirable (NE) Not Established (Tr) Trace (M) Mist (F) Fume

Section IV – Physical Data

Melting Point: 1450°C – decomposes
Specific Gravity: 2.7-3.0
Appearance and Odor: White powder, low odor
Solubility in Water: 0.2%
Hardening Time: Varies. Check usage and/or product specification data for each product.

Section V – Fire and Explosion Hazard Data

Flash point (Method Used): None
 Extinguishing Media: Not combustible
 Special Fire Fighting Procedures: None
 Unusual Fire and Explosion Hazards: None

Section VI – Health Hazard Data

Effects of Overexposure:
 Acute:
 Eyes: Particles and Portland Cement may cause eye irritation.
 Skin: When mixed with water, this material hardens and then slowly becomes hot. DO NOT attempt to make a cast enclosing any part of the body. Failure to follow these instructions may cause severe burns that may require surgical removal of affected tissue. May dry skin.
 Inhalation: Persons subjected to large amounts of this dust will be forced to leave area because of nuisance conditions: coughing, sneezing and nasal irritation from dust.
 Ingestion: See Emergency and First Aid for Ingestion below.
 Chronic: None known

Emergency and First Aid Procedures:
 Eyes: Flush eyes with water for 15 minutes. Call PHYSICIAN if irritation continues.
 Skin: Wash contaminated area with water.
 Inhalation: Remove to fresh air.
 Ingestion: Plaster hardens when wetted and, if ingested, may result in obstruction. See Physician.

Target Organs: Lungs
 Medical Conditions Which May Be Aggravated: Pre-existing upper respiratory and lung disease such as, but not limited to, bronchitis, emphysema and asthma.
 Primary Route of Entry: Inhalation

Carcinogenicity of Ingredients:

Material	IARC	NTP	OSHA
All	Not Listed	Not Listed	Not Listed

Section VII – Reactivity Data

Stability: Stable
Incompatibility: Acids
Hazardous
Decomposition
Products: Above 1450°C – CaO and SO₂
Hazardous
Polymerization: Will not occur

Section VIII – Spill or Leak Procedures

Steps to be Taken in Case Material is Released or Spilled: Sweep or vacuum material from spillage into a waste container for disposal. Avoid dusting conditions. If washed down, may plug drains. If already mixed with water, scrape up and wash down residue.
Waste Disposal Method: This material can be disposed of as inert solid in a landfill or by other procedures which are accepted under federal, state and local regulations.

Section IX – Special Protection Information

Respiratory Protection: Provide general ventilation and local exhaust ventilation to meet TLV requirement. When dusty condition exists, wear an approved dust mask to guard against nuisance particles.
Protective Equipment: Gloves or protective clothing are usually, but not necessarily, desirable in specific work situations. Eye protection (goggles) may be needed to avoid particulate irritation of the eye.

Section X – Special Precautions

Precautions to be Taken in Handling and Storage: Be sure proper ventilation and respiratory and eye protection are used in dusty conditions.

PART D - VERMICULITE

Section I - Supplier Information

Trade name: Monarch Ceiling Panels
Chemical family:
Manufacturer: W.R. Grace & Co. – Conn.
Address: 62 Whittemore Ave., Cambridge, MA 02140
W.R. Grade & Co. of Canada Ltd.
294 Clements Rd. West, Ajax, Ontario, Canada L1S 3C6
Phone: 617-876-1400 (U.S.) and 416-683-8561 (Canada)
Fax:
Emergency: 617-876-1400 (U.S.) and 416-683-8561 (Canada)
Telephone Contact: 617-876-1400 (U.S.) and 416-683-8561 (Canada)
Date Prepared:
Distributor: Chicago Metallic Corp.
Address: 4849 S. Austin Avenue, Chicago, IL 60638
Phone: 800-323-7164

Section II –Product Identification

Trade Names and Synonyms: ZONOLITE INDUSTRIAL VERMICULITE
(See Section 12 for Additional Product Information)
Chemical Names and Family: Expanded Vermiculite (Enoree, South Carolina Source): Magnesium-Aluminosilicate Mineral.
Product Use: Insulating, Absorbing and Cushioning Material.
Formula: $(Mg.Ca.K.Fe^{11})_3$
 $(S1.A1.Fe^{11}4_0_{10}(OH)_2 - H_2O$
CAS# (Chemical Abstract Service): 01318-00-9

Transportation Hazard Classification

	United States DOT		Canadian Regulations
<u>Proper Shipping:</u>	Not Applicable	<u>TDG Class:</u>	Nonhazardous
<u>NAME</u>			
<u>Hazard Class:</u>	Nonhazardous		
<u>Identification #:</u>	Not Applicable		
<u>Label(s) Required:</u>	Not Applicable		
<u>Surface Freight Classification:</u>	Vermiculite, Other Than Crude		
<u>NPCA-HMIS Hazard Index:</u>	- Health: 1 - Flammability: 0 - Reactivity: 0 - Personal Protection: E (See Section 8)		

Section III – Hazardous Ingredients/Identity Information

<u>INGREDIENT</u> (Chemical Name, CAS #, & Common Name)	<u>%</u> <u>By Wt.</u>	<u>TOXICITY DATA LD₅₀, LC₅₀, etc.</u> (See Section 9 for Exposure Limits)
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Not Applicable

Section IV – Physical Data/Chemical Characteristics

<u>Boiling Point:</u>	Not Applicable	<u>Specific Gravity (H₂O-1) SPECGRAV</u>
<u>Vapor Pressure (mm Hg.)</u>	None	
<u>% Volatile:</u>	Not Applicable	
<u>Vapor Density (AIR = 1):</u>	None	
<u>Evaporation Rate:</u> (Butyl Acetate = 1)	Not Applicable	
<u>Solubility in Water:</u>	Negligible	
<u>pH:</u>	Not Applicable	
<u>Bulk Density (#/cu. ft):</u>	4-10 PCF	
<u>Appearance and Odor:</u>	Brown or gray free-flowing aggregate Earthy odor.	
<u>Odor Threshold:</u>	None Established	

Section V – Fire and Explosion Data

Flash Point:	None
Flammable Limits:	LEL: NA UEL: NA
Method Used:	Not Applicable
N.F.P.A. Rating:	Not Applicable
Extinguishing Med	Not Applicable
Special Fire Fighting Procedures:	None
Unusual Fire and Explosion Hazards:	None

Section VI – Reactivity Data

Stable under normal conditions (yes or no):	YES
Conditions or Materials to avoid (which may react or cause instability):	None Known
Hazardous Decomposition or Byproducts:	None Known
Hazardous Polymerization:	Will not occur
Conditions to Avoid:	None Known

Section VII – Health Hazard Data & Toxicological Properties

Routes of Exposure:

Inhalation:

Dust that may be released in handling may cause symptoms typical of nuisance dusts. Including coughing, sneezing, and minor upper respiratory irritation.

Skin and Eye:

Direct eye contact may cause minor physical or mechanical irritation. Skin contact not expected to cause any harmful effects.

Ingestion:

Not considered harmful by ingestion.

Carcinogenicity According to NTP, IARC and OSHA:

Not Applicable (See Section 8 for information regarding Quartz)

Section VIII – Emergency and First Aid Procedures

In case of EYE contact, do not rub eyes. Flush with plenty of water while holding eyelids apart. If irritation, blinking or tearing occur and persist, consult a physician.

Adverse health effects are not expected if SWALLOWED. Consult a physician if symptoms develop.

If INHALED, get fresh air. If symptoms persist, consult a physician.

Section IX – Preventive & Control Measures

Warning Statements:

CAUTION! MAY CAUSE SLIGHT IRRITATION

- Product contains Vermiculite CAS# 1318-00-9 and other associated minerals, including Quartz CAS# 14808-60-7. (See information in Work/Hygienic Practices Section of MSDS for additional information.).
- Eye contact may cause minor physical irritation.
- Inhalation of dust may cause upper respiratory irritation with coughing and sneezing.

Precautionary Measures:

- Avoid contact with eyes.
- Avoid creating dust.
- Equip hoppers with dust covers where applicable.
- Provide adequate ventilation and respiratory protection if necessary.

Respiratory Protection:

A NIOSH Type TC-21C-XXX dust respirator may be desirable if dust is created in handling and is required or above the Permissible Exposure Limit (PEL) for Nuisance Particulates. Consult MSDS Section 9 for exposure limits.

Ventilation:

Local Exhaust: Not generally required, but should be used where available.
Mechanical: Not generally required, but should be used where available.
Special: None
Other: None

Section X – Preventive & Control Measures

Skin Protection:

Not generally required.

Eye Protection:

Goggles recommended.

Other Protective Clothing or Equipment:

Normal work clothes.

Work/Hygienic Practices:

Observe precautions noted above.

Section 8 of this MSDS indicates that this product can contain quartz (Crystalline Sillica). Quartz is a naturally occurring mineral that is commonly contained in materials that are mined from the earth’s surface such as sand, limestone, clay and gypsum. Quartz is represented by the combined fractions of non-respirable sized particles of respirable sized particles (less than ten microns in aerodynamic diameter).

Respirable sized quartz has been tied to more serious health effects (silicosis and lung cancer). Grace has not been able to detect any respirable sized quartz in Industrial Vermiculite based on industrial hygiene sampling of workers at Grace production facilities. We believe the highest potential for exposure exists at our production facilities due to the high volume of product produced and handled.

In addition a wet sieving analysis combined with x-ray diffractometry has been conducted on Industrial vermiculite. Results indicate that respirable quartz is not present above the 0.1% by weight limit established by the Occupational Safety and Health Administration (OSHA) for carcinogens. OSHA states that if the hazardous substance is contained in the product below 0.1% by weight and if exposures do not exceed permissible exposure limits then the hazards do not apply.

Results of monitoring and analysis are available upon request.

Section XI - Hazardous Ingredients Exposure Limits – U.S. Only

INGREDIENT:	Exposure Limits		
	OSHA	ACGIH	OTHER
RESPIRABLE DUES* CAS# NA	PEL/TWA: 5 mg/m ³	-----	-----
TOTAL DUST* CAS# NA	PEL/TWA: 15 mg/m ³	TLV/TWA: 10 mg/m ³	None Established

Section XII – Spill & Disposal Information – U.S. Only

Observing the above precautions, sweep up or shovel spilled material and place in suitable containers for recycle or disposal. Dampen with water spray or use other methods to clean spill which avoid creating dust. Discard empty packaging promptly. Avoid excessive handling of empty packaging, which may result in unnecessary release of airborne particulates.

According to EPA (40 CFR 261.3) waste of this product is not defined as hazardous. Dispose of all waste in accordance with federal, state and local regulations.

Section XII – Government Reporting Information – U.S. Only

SARA Title III Reporting Information

Tier I & II Hazard Categories:

NOT APPLICABLE

Contains Extremely Hazardous-SARA III Section 302 Ingredient:

NO

Comments:

Contains Toxic Chemical Release-SARA III Section 313 Ingredient:

NO

Comments:

Other Government Reporting Requirements:

Not Applicable

Non-Hazardous Ingredient Disclosure:

None

Section XIII – Product Identification/Tradename Addendum

The information contained in this Material Safety Data Sheet is applicable to the following products:

Zonolite, Industrial Vermiculite, Industrial Vermiculite

THE DATA INCLUDED HEREIN ARE PRESENTED ACCORDING TO W.R. GRACE & CO.-CONN'S PRACTICES CURRENT AT THE TIME OF PREPARATION HEREOF. ARE MADE AVAILABLE SOLELY FOR CONSIDERATION, INVESTIGATION AND VERIFICATION OF THE ORIGINAL RECIPIENTS HEREOF AND DO NOT CONSTITUTE A REPRESENTATION OR WARRANTY FOR WHICH GRACE ASSUMES LEGAL RESPONSIBILITY. IT IS THE RESPONSIBILITY OF A RECIPIENT OF THIS DATA TO REMAIN CURRENTLY INFORMED ON CHEMICAL HAZARD INFORMATION, TO DESIGN AND UPDATE ITS OWN PROGRAM AND TO COMPLY WITH ALL NATIONAL, FEDERAL, STATE AND LOCAL LAWS AND REGULATIONS APPLICABLE TO SAFETY, OCCUPATIONAL HEALTH, RIGHT-TO-KNOW AND ENVIRONMENTAL PROTECTION.