

INHALATION

ANTIDOTE

**NOTE TO PHYSICIANS** 

## CHIN CHA-ROEN INTERCHEM CO.,LTD.

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## **MATERIAL SAFETY DATA SHEET**

MI AN EAGLE					Page 1 of 4
SECTION 1: PRODUCT A	ND CO	MPANY IDENTIFICA	TION		wert months
PRODUCT TRADE NAME	Celatom FW-12, FW-14, FW-18, FW-20, FW-40, FW-50, FW-60, FW-70, FW-80, SP				
MANUFACTURER	EP Minerals, LLC., 9875 Gateway Dr., Suite 1000, Reno, NV 89521				
TELEPHONE NO. (	(775) 824 7600 (Monday - Friday 8:00 am PST - 5:00 pm PST)				
CHEMICAL NAME	Diatomaceous Earth, Flux-Calcined				
CHEMICAL FAMILY	Silica				
MATERIAL USE F	Filter Aid				
DATE OF PREPARATION 3	January 11, 2010				
SECTION 2: HAZARDS II	DENTIF	ICATION	of cold a loss of laborate start		pagnu. 'a
EMERGENCY OVERVIEW: Appearance//Color/Odor	A white, low	density powder. There is no dis	tinctive odor.	W3592010-089	THELLOWATE
OSHA REGULATORY STATUS	This material is considered hazardous by the OSHA Hazard Communication Standard (29CFR 1910.1200)				
POTENTIAL HEALTH EFFECTS S	See below and Section 11 for additional information				MIGLICA
Likely Routes of Exposure	See below				
EYE	May cause irritation (tear formation and redness) if dust gets in eyes.				
SKIN	Not absorbed by the skin, but may cause dryness if prolonged exposure.				
	Ingestion of small to moderate quantities is not considered harmful, but may cause irritation of the mouth, throand stomach.				
· INHALATION	Acute inhalation can cause dryness of the nasal passage and lung congestion, coughing and general throat irritation. Chronic inhalation of dust should be avoided.				
CHRONIC EFFECTS	Chronic inhalation of crystalline silica dust in excess of the Threshold Limit Value (TLV) recommended by the American Conference of Governmental Industrial Hygienists (ACGIH)(.025mg/m²) or in excess of the Permissi Exposure Limit (PEL) established by OSHA (0.050mg/m²), over a prolonged number of years may contribute to silicosis. Crystalline silica, when inhaled as respirable dust, has been classified in a 1997 monograph (Volume 68, "Silica") of the International Agency for Research on Cancer (IARC) as carcinogenic to humans over prolonged and sustained exposure.				
CONDITIONS AGGRAVATED BY EXPOSURE	Pre-existing diseases of the upper respiratory tract and lung such as bronchitis, emphysema, and asthma.				
ENVIRONMENTAL EFFECTS	There are no significant environmental effects.			in 50/	A LEYE
SECTION 3: COMPOSITI	ON / IN	FORMATION ON INC	REDIENTS	M.	HOUSE
INGREDIENT IDENTIFICATION	٧	APPROXIMATE CONCENTRATION (%)	C.A.S. NUMBERS	EINECS	R Factors
Diatomaceous Earth, Flux-Calcined (kies	selguhr)	100%	68855-54-9	272-489-0	SITEM
Crystalline Silica (Cristobalite)	Masur (Co.) Masz Alger Martin Sur	35-50%	14464-46-1	238-455-4	R48/20
SECTION 4: FIRST AID N	MEASU	RES	nes three Just political ti	eyA Brisso	at Avancia
EYE	Flush eyes	with generous quantities of wate	r or eye rinse solution. Cons	ult physician if imitatio	n persists.
	Use moisture renewing lotions if dryness occurs.				
INGESTION	Drink generous amounts of water to reduce bulk and drying effects.				

Remove to fresh air. Blow nose to evacuate dust.

No special notes.

Not applicable

	Celatom FW-12, FW-14, FW-18, FW-20, FW-40, FW-50, FW-60, FW-70, FW-80, SP Page 2 of 4					
SECTION 5: FIRE FIGHT	TING M	EASURES	20110	Sed has desiral trace of the		
FLAMMABILITY	This material is not flammable.					
EXTINGUISHING MEDIA	Not applicable, the material is not fiammable.					
FIRE-FIGHTING PROCEDURES	Not applicable, the material is not fiammable.					
PROTECTIVE EQUIPMENT	Not applicable, the material is not flammable					
HAZARDOUS COMBUSTION PRODUCTS	Not applicable, the material does not combust.					
SPECIFIC PHYSICAL AND CHEMICAL HAZARDS	Not applicable, the material is not flammable.					
EXPLOSION DATA	Not applicable, the material is not explosive.					
SECTION 6: ACCIDENT	AL REL	EASE MEA	SURES	biA mili?	ELISA) -Arrantiq 1-4	
PERSONAL PRECAUTIONS	If dust is	present, use respi	rator fitted with pa	rticulate filter as specified in Section 8. Pro	tect eyes with goggles.	
ENVIRONMENTAL PRECAUTIONS	This material is not a significant environmental concern.					
CONTAINMENT AND CLEANUP	Vacuum clean spillage, wet sweep or wash away. Avoid creating dust.					
SECTION 7: HANDLING	AND S	TORAGE	exalous by the C	DUTA!		
HANDLING	Minimize dust generation. Avoid contact with eyes. Avoid breathing dust. Repair or dispose of broken bags.					
STORAGE '	Store in a dry place to maintain packaging integrity and product quality. Do not store near hydrofluoric acid.  Observe all label precautions and warnings.					
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SECTION 8: EXPOSUR	F CONT	TROLS / PE	RSONAL PI	ROTECTION	Les remandes	
And the second s	E CONT	ROLS / PE	RSONAL PI	ROTECTION	маначен	
EXPOSURE GUIDELINES:	E CONT	THE STATE OF THE S		A constraint which	NIOSH BEI	
And the second s	E CONT	OSHA PEL	ACGIHTLV	ROTECTION MSHA PEL	NIOSH REL	
	E CONT	THE STATE OF THE S		A constraint which	NIOSH REL See below	
EXPOSURE GUIDELINES:  Component  Diatomaceous Earth, Flux-Calcined	E CONT	OSHA PEL	ACGIH TLV	` MSHA PEL	See below	
EXPOSURE GUIDELINES:  Component  Diatomaceous Earth, Flux-Calcined (kieselguhr)	Local - C	OSHA PEL See below 0.050 mg/m³	ACGIH TLV See below 0.025 mg/m² recommended TL	MSHA PEL  See below  0.5*10/(% respirable crystalline silica +2)  V/PEL. Refer to ACGIH publication "Indus	See below 0.025 mg/m³	
EXPOSURE GUIDELINES:  Component  Diatomaceous Earth, Flux-Calcined (kieselguhr)  Crystalline Silica (Cristobalite)	Local - C	OSHA PEL  See below  0.050 mg/m³  Control dust within ons for design of w	ACGIH TLV See below 0.025 mg/m² recommended TL	MSHA PEL  See below  0.5*10/(% respirable crystalline silica +2)  V/PEL. Refer to ACGIH publication "Indus	See below 0.025 mg/m³	
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MATERIAL NAME	Celatom FW-12, FW-14, FW-18, FW-20, FW-40, FW-50, FW-60, FW-70, FW-80, SP Page 3 of 4					
SECTION 9: PHYSICAL	AND CHEMICAL PRO	PERTIES	,			
APPEARANCE, COLOR	Light pink to white powder	ODOR	Odorless			
PHYSICAL STATE	Solid	pH (10% SUSPENSION)	10			
VAPOR PRESSURE	Not applicable	VAPOR DENSITY	Not applicable			
BOILING POINT	Not applicable	MELTING POINT	> 1300 °C			
FLASH POINT	Not applicable	FLAMMABILITY	Not applicable			
FLAMMABILITY LIMITS	Not applicable	AUTOIGNITION TEMPERATURE	Not applicable			
DECOMPOSITION TEMPERATURE	> 1300 °C	SPEC. GRAVITY / REL. DENSITY	2.3			
EVAPORATION RATE	Not applicable	COEFF WATER / OIL	Not applicable			
ODOR THRESHOLD	Not applicable	SOLUBILITY - WATER	< 1%			
PARTITION COEFFICIENT	Not applicable	Wer aud an exposes and sollars 1	4001			
SECTION 10: STABILI	TY AND REACTIVITY	Continues a not carefled us a familiar	A LONG TO			
CHEMICAL STABILITY	Material is stable.	,00000	His dies I als Philosophia			
PHYSICAL HAZARDS	Material is not reactive.					
CONDITIONS TO AVOID	Not applicable					
INCOMPATIBLE MATERIALS	Hydrofluoric acid. Products containing silica may react violently with hydrofluoric acid.					
HAZARDOUS DECOMPOSITION PRODUCTS	Not applicable					
SECTION 11: TOXICOI	OGICAL INFORMATIO	N	13 Made 1071 (10 m.) Cetta (			
CHRONIC EFFECTS / CARCINOGENICITY	sllica is not classifiable as carcin classified as carcinogenic to hur crystalline silica may contribute monograph (Volume 68, "Silica" the epidemiological findings sup	th (Kieselguhr) is composed of amorphous an nogenic to humans. Crystalline silica, when in mans over prolonged and sustained exposure to the respiratory disease "silicosis", a non-ca ), the international Agency for Research on C port increased risk of lung cancer from inhale d in Group 1), while there was inadequate ev lica (classified in Group 3).	chaled as respirable dust, has been build be the condition of respirable choice ous lung disease. In a 1997 cancer (IARC) concluded that overall drystalline silica resulting from			
ROUTE OF EXPOSURE	Inhalation (chronic)	West At 1886	The real and and the			
SYMPTOMS	Not available	JOS (1) grants	- I Iron - Wwwwei-			
LD50	Not available					
IMMEDIATE AND DELAYED EFFECTS	No immediate effects. See CHRONIC EFFECTS for potential long-term effects when prolonged exposure to levels of crystalline silica in excess of OSHA PEL and ACGIH TLV.					
CORROSIVENESS, SENSITIZATION, IRRITANCY	Not applicable					
REPRODUCTIVE TOXICITY	Not available					
TERATOGENICITY, MUTAGENICITY	Not available					
TOXICOLOGICALLY SYNERGISTIC PRODUCTS	Inhaled smoke from tobacco pro	oducts (chronic).				
SECTION 12: ECOLOG	ICAL INFORMATION					
CHARACTERISTICS	Non-biodegradable, inert, with little potential for bioaccumulation.					
POSSIBLE EFFECTS	Diatomaceous earth products have shown some efficacy as a natural insecticide, but otherwise have no demonstrated toxicity in regards to aquatic or terrestrial life.					

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SECTION 13: DISPO	DSAL CONSIDERATIONS					
WASTE DISPOSAL	If this material as supplied becomes a waste, use solid waste disposal common to landfill type operations or in slurry to sumps. Not considered a hazardous waste under RCRA (4OCFR Part 261).					
PACKAGING DISPOSAL	Dispose of in accordance with applicable laws and regulations, typically solid waste disposal common to landfill type operations.					
SECTION 14: TRAN	SPORT INFORMATION					
BASIC SHIPPING INFORMAT	ON DOT shipping classification 55 (no restrictions). Technical name is "Diatomaceous Earth".					
ADDITIONAL INFORMATION	No special requirements or placarding necessary.					
SECTION 15: REGU	LATORY INFORMATION					
U.S. FEDERAL:	ALCONOMIC CONTRACTOR OF THE PROPERTY OF THE PR					
OSHA	Under the Hazard Communication Standards, crystalline silica is classified as a toxic and hazardous substance.					
TSCA	Crystalline silica appears on the EPA TSCA inventory list, but is not regulated.					
CERCLA	Crystalline silica is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR 302.					
SARA TITLE III	Not listed.					
NTP	Respirable crystalline silica, primarily quartz dusts occurring in industrial and occupational settings, is classified as a carcinogen.					
INTERNATIONAL:						
IARC	"Inhaled crystalline silica from occupational sources" - Group 1 - is classified in IARC as a carcinogen.					
WHMIS Classification	Crystalline silica is classified as a D2A substance					
WHMIS Ingredient Disclosure List	Included for disclosure at 1% or greater. Meets criteria for disclosure at 0.1% or greater.					
EEC Label (Risk/Safety Phrases)	R48/20, S22, S38					
SECTION 16: OTHE	R INFORMATION					
to make product and the state was to esta- ter may be an obtained of the color of the	' Health					
	4-Extreme 3-High 2-Moderate 2-Moderate 2-Moderate 3-Bight 3-Bi					
or ce in law each tea	1 0 3-High					
	E Protective Equipment					
ORIGINAL ISSUE DATE	November 18, 1985					
REVISION DATE	January 11, 2010					
REVISION NO.	12					

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