

EMS Barracuda

WORLD'S ONLY NON-REGULATED AND OEM-APPROVED CONCRETE STRIPPER

- Removes Concrete
- Non-Corrosive
- 100% Acid Free
- Non-Fuming
- Non-D.O.T. Regulated
- 100% Biodegradable
- Safe on Glass & Chrome
- One-Step Process
- OSHA and EPA Compliant
- Removes Mineral Stains
- Safe on Skin

Barracuda is not only the most potent concrete stripper in the world, it is also the safest. Independent tests confirm that EMS Barracuda, formed with patented SynTech, the world's only synthetic acid, dissolves nearly 15% more concrete than Hydrochloric acid. Still, all that potency comes with a triple zero Hazardous Material Index Score. Which makes our concrete stripper safe on skin, safe for your equipment, and safe to store anywhere you wish.

Barracuda is so safe it is recommended by leaders in the cement industry including Mack, McNeilus, Oshkosh, London and Indiana Phoenix. It is safe on paint, chrome, aluminum, wiring, plastic and even glass.

And because Barracuda contains no acid and is non-corrosive, you can apply it to any kind of equipment. It is so safe it can even be left on overnight to loosen the heaviest buildup. Ideal for cleaning forms, pavers, portable mixers, swimming pools, tools, windows...anywhere you find cement, gunite, or mortar. Any cleaning that once required the use of dangerous, toxic acids can now be safely done with Barracuda. And because it is 100% synthetic, no neutralizing step is required. Simply rinse with water.

Barracuda Concrete Stripper is non-D.O.T. regulated, and is readily biodegradable per OECD 301D. Barracuda is non-fuming, will not corrode or rust metals and is 100% OSHA & EPA compliant.

Barracuda is available in its original version and Barracuda 10k, designed to remove even the heaviest mixes.

2006 Winner



Concrete Produce Magazine



EMS offers the 1st & only truck washes that are "guaranteed" not to void the warranty for rust & corrosion of the original equipment manufacturers listed above.

demden

LIMITED

For more information call +64 7 575 5410 visit www.demden.co.nz

Technical Data

NITRATE LEVEL: 0% - None
FORM: Liquid
ODOR: Mild Soapy Odor
COLD STABILITY: -26° F
DETERGENCY: Moderate
TOXICITY: Non Toxic
WETTING ABILITY: Excellent
STORAGE STABILITY: 1 Year+

SHIPPER REGULATIONS: None
FLASH POINT: None
BOILING POINT: 210° F
SOLUBILITY IN WATER: 100%
BIODEGRADABLE: Yes/100%
VOLATILE BY VOLUME: N/A
CARCINOGENS: None
VISCOSITY: Thin

Dissolving Properties

Calcium Carbonate Dissolving Properties of Acids with 3 Minute Exposure

Acid	% Dissolved
Barracuda 10K	16.9
Barracuda	10.3
HCl (Muriatic)	8.9
Urea HCl	7.2
Formic	0.7
Phosphoric	0.9
Citric	0.0
Lactic	0.2
Acetic	0.1
Glycolic	0.2
Gluconic	0.1
Rydlyme	0.3
Oxalic	0.0
Malic	0.4

Test Conditions

200 grams of 5% active solution
1 Calcium Carbonate Cube
3 Minutes @ 70° F

Clearly, Barracuda out performs other acids when it comes to dissolving calcium carbonate, including HCl (Muriatic) which is highly corrosive.

Metal Studies

Dept. of Transportation (D.O.T.) Test Protocols as per Section 173.154
Exceptions for Class 8 (corrosive materials): The material being tested must be proven to be non-destructive or not to cause irreversible alterations in human skin tissue. Testing was conducted on an albino rabbit.

Conclusion: Barracuda was proven to be NON-DESTRUCTIVE on human skin tissue.

Metal Test Limits: D.O.T. Classifies a material to be CORROSIVE if it has a corrosion rate that exceeds 6.25 mmpy on SAE C1020 carbon steel.

Results of Barracuda: SAE 1020 carbon steel = 0.2433 mmpy

Results of Barracuda: SAE 1020 carbon steel = 0.2703 mmpy

Conclusion: Barracuda and Barracuda 10K are NON-CORROSIVE

Dilution Specifications

Light to moderate, everyday buildup:
Dilute 6:1

Moderate to heavy buildup:
Dilute 4:1

Heavy to extra heavy buildup:
Dilute 2:1

Severe buildup:
Dilute 1:1

Apply to buildup, agitate, rinse. Repeat as needed.
May be left overnight.

Toxicity Studies

Toxicity Limits: Test Procedure OECD 202, 48 hr.
LC 50 and LD 50 (rat oral) scores found Barracuda to be NON-TOXIC.

Mutagenicity Limits: OECD Guidelines Sec. 471 Chemicals
Barracuda was found NOT TO BE MUTAGENIC

Dermal Irritation & Corrosion Test
A modified Draize method was used as described in OECD Guidelines for the Testing of Chemicals Sec. 404 and complies with the requirements of OECD Principles of GLP, Annex revised as of July 1992.

Barracuda received a Primary Irritation Score of .09 +/-0.2 and is classified as a "Very Mild Skin Irritant"

Biodegradation & Aquatic Safety
Test Procedure: Hach Reactor Digestion method for Waste Water and Sea Water. Hach Reactor Digestion Method is a semi-micro adaptation of the Standard Methods.

Test Results Conclude Barracuda was found to be 100% Biodegradable

COD = Low Detectable Limits

BOD = No Detectable Limits

Classifications & Approvals

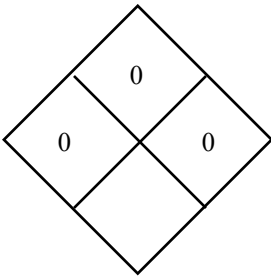
D.O.T., TDG, IMO, IATA, IMDG, SARA 313 311/312, California Prop 65
NON-Regulated

FDA
Approved as Safe (GRAS)
(CGMP) CFR 184.1923

USDA Authorization
A1, A2, A3, A4, A7, A8, C2,
G6 & G7

New Zealand
ERMA Non-Regulated/Non-Hazardous
HSNO Non-Regulated/Non-Hazardous
NZ ERMA File Ref R:DMHS-02-10-01
SOS # 4722, 4723, 4724, 4725, 4726

Additional Studies & Results: When tested, Barracuda showed no potential for the generation of Carbon Dioxide under NIOSH 7903, OSHA & ACGIH testing protocols governing workplace environments.



Material Safety Data Sheet



This MSDS complies with OSHA's Hazard Communication Standard, 29 CFR 1910.1200 and OSHA FORM 174.
OMB No. 1218-0072

Identity (Trade Name As Used On Label)

SECTION 1 - COMPANY/PRODUCT INFORMATION

Manufacturer's Name: Environmental Manufacturing Solutions, L.L.C.

Address: 7705 Progress Circle

Melbourne, Florida 32904

Phone Number (For Information): 321-837-0050

Emergency Phone Number (Chemtrec) 800-424-9300

IDENTITY: BARRACUDA

CAUSE FOR MSDS: 29CFR Regs

MSDS Number: N/A

Date Prepared: 05/05/04

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION 2 - HAZARD INGREDIENTS/IDENTITY INFORMATION

COMPONENTS - Chemical Name & Component Names (Hazardous Components 1% or greater. Carcinogens 1% or greater)	OSHA PEL	ACGIH TLV	OTHER LIMIT RECOMMENDED
PROPRIETARY TRADE SECRET PERMITTED	N/A	N/A	N/A
NON-Hazardous, NON-DOT Regulated, NON-Nitrate Formula			
NOTICE: Under SARA: Section 313 (Toxic Chemical Release Reporting) 40 CFR 372			
NONE of the ingredients of this product are listed as Toxic Substances under TSCA			

SECTION 3 - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point 210° F	Specified Gravity (H ₂ O = 1) 1.10
Vapor Pressure (mm Hg.) 16	Melting Point N/A
Vapor Density >1	Evaporation Rate (Butyl Acetate = 1) <.01
Solubility In Water 100%	Appearance and Odor Light Yellow, Mild Soapy Odor

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used) None	Flammable Limits None	LEL N/A
Extinguisher Media None	Special Fire Fighting Procedures None	UEL N/A
Unusual Fire and Explosion	None Known	

SECTION 5 - REACTIVITY DATA

STABILITY: Unstable No Stable Yes-100%

CONDITIONS TO AVOID: None Known

Incompatibility (Materials to Avoid) Do not mix with Strong Oxidizing Agents, or Strong Chlorinated Agents.

Hazardous Decomposition or Byproducts None Known

HAZARDOUS POLYMERIZATION: May Occur No Will Not Occur Yes

CONDITIONS TO AVOID: None Known

N/A

SECTION 6 - HEALTH HAZARD DATA

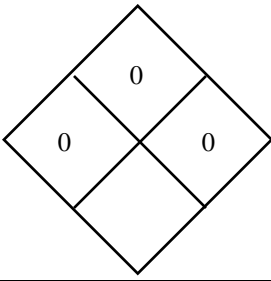
ROUTE(S) OF ENTRY:	Inhalation? No	Skin? No	Ingestion? Yes
HEALTH HAZARDS (<i>Acute and Chronic</i>)	If Ingested, May cause loose Stools. Drink Plenty of Water and Consult a Physician. Do not Induce Vomiting.		
N/A			
N/A			
CARCINOGENICITY:	NTP? No	IARC No	OSHA Regulated? No
SIGNS AND SYMPTOMS OF EXPOSURE:	None Known, See HEALTH HAZARDS		
N/A			
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	None Known		
N/A			
EMERGENCY AND FIRST AID	As with any Chemical, Use Caution and Good Safety Measures when in use. Ingestion: Drink Plenty of Water/2-3 Glasses		
and Consult Physician Immediately. Eyes: Flush with Plenty of Water for 15 minutes. Skin: Wash Thoroughly with Soap and Water for 15 minutes. Inhalation: Move to fresh air			

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled	Spilled Material should be washed away promptly with copious amounts of water.
Product Material instantly Neutralizes with water.	
N/A	
Waste Disposal Method	Non Hazardous. No Special Requirements are known to be applicable at this time. Product instantly neutralizes with water.
Always offer Drums and/or Bulk Containers to be returned to your Supplier or for Recycling to your local Recycler.	
Precautions to Be Taken in Handling and Storing	None Known. As with all Chemical Products and Materials, take care as to where and how you store them.
N/A	
Other Precautions	None Known
N/A	
N/A	

SECTION 8 - Control Measures

Respiratory Protection (<i>Specify Type</i>)	N/A
Ventilation	No Special Ventilation is Known to be Needed.
Local Exhaust	N/A
Special	N/A
Other	N/A
Mechanical(<i>General</i>)	N/A
Protective Gloves	N/A
Eye Protection	As with any Chemical Product or Material, care should be taken as not to get anything in the Eyes. Safety Glasses or Goggles are suggested for use
Other Protective Clothing or Equipment	N/A
N/A	
Work/Hygienic Practices	N/A
N/A	



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Address: **7705 Progress Circle**

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Phone Number (For Information): **321-837-0050**

Emergency Phone Number (Chemtrec) **800-424-9300**

IDENTITY: BARRACUDA 10K

CAUSE FOR MSDS: 29CFR Regs

MSDS Number: **N/A**

Date Prepared: **04/10/07**

Note: Blank spaces are not permitted. If any item is not applicable, or no information is available, the space must be marked to indicate that.

SECTION 2 - HAZARD INGREDIENTS/IDENTITY INFORMATION

COMPONENTS - Chemical Name & Component Names (Hazardous Components 1% or greater. Carcinogens 1% or greater)	OSHA PEL	ACGIH TLV	OTHER LIMIT RECOMMENDED
Patented Synthetic Acid	N/A	N/A	N/A
NON Hazardous, NON-DOT Regulated, NON Nitrate Formula			
NOTICE: Under SARA: Section 313 (Toxic Chemical Release Reporting) 40 CFR 372			
NONE of the ingredients of this product are listed as Toxic Substances under TSCA			

SECTION 3 - PHYSICAL / CHEMICAL CHARACTERISTICS

Boiling Point	221 F	Specified Gravity (H2O = 1)	1.8
Vapor Pressure (mm Hg.)	N/A	Melting Point	N/A
Vapor Density (Air=1)	N/A	Evaporation Rate (Butyl Acetate = 1)	N/A
Solubility In Water	100%	Appearance and Odor	Dark Amber in Color, Mild Odor

SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used)	None	Flammable Limits	None	LEL	N/A
Extinguisher Media	None	Special Fire Fighting Procedures	None	UEL	N/A
Unusual Fire and Explosion Hazards	None Known				

SECTION 5 - REACTIVITY DATA

STABILITY:	Unstable	No	Stable	Yes-100%
CONDITIONS TO AVOID:	None Known			
Incompatibility (Materials to Avoid)	Do not mix with bases, strong oxidizing agents or strong reducing agents.			
Hazardous Decomposition or Byproducts	None Known			
HAZARDOUS POLYMERIZATION:	May Occur	No	Will Not Occur	Yes
CONDITIONS TO AVOID:	None Known			
N/A				

SECTION 6 - HEALTH HAZARD DATA

ROUTE(S) OF ENTRY:	Inhalation? No	Skin? No	Ingestion? Yes
HEALTH HAZARDS (<i>Acute and Chronic</i>):	If Ingested, May cause loose Stools. Drink Plenty of Water and Consult a Physician. Do not Induce Vomiting.		
N/A			
N/A			
CARCINOGENICITY:	NTP? No	IARC Monographs? No	OSHA Regulated? No
SIGNS AND SYMPTOMS OF EXPOSURE:	None Known, See HEALTH HAZARDS		
N/A			
MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE:	None Known		
N/A			
EMERGENCY AND FIRST AID PROCEDURES:	As with any Chemical, Use Caution and Good Safety Measures when in use. Ingestion: Drink Plenty of Water/2-3 Glasses		
and Consult Physician Immediately. Eyes: Flush with Plenty of Water for 15 minutes. Skin: Wash Thoroughly with Soap and Water for 15 minutes. Inhalation: Move to fresh air			

SECTION 7 - PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken in Case Material is Released or Spilled:	Spilled Material should be washed away promptly with copious amounts of water.
Product Material instantly Neutralizes with water.	
N/A	
Waste Disposal Method:	Non Hazardous. No Special Requirements are known to be applicable at this time. Product instantly neutralizes with water.
Always offer Drums and/or Bulk Containers to be returned to your Supplier or for Recycling to your local Recycler.	
Precautions to Be Taken in Handling and Storing:	None Known. As with all Chemical Products and Materials, take care as to where and how you store them.
N/A	
Other Precautions:	None Known
N/A	
N/A	

SECTION 8 - Control Measures

Respiratory Protection (<i>Specify Type</i>):	N/A
Ventilation:	No Special Ventilation is Known to be Needed.
Local Exhaust:	N/A
Special:	N/A
Other:	N/A
Mechanical (<i>General</i>):	N/A
Protective Gloves:	N/A
Eye Protection:	As with any Chemical Product or Material, care should be taken as not to get anything in the Eyes. Safety Glasses or Goggles are suggested for use
Other Protective Clothing or Equipment:	N/A
N/A	
Work/Hygienic Practices:	N/A
N/A	