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 AUTHORIZED SANDIA NATIONAL LAB LICENSEE
 4725 OAKLAND STREET
 DENVER, COLORADO U.S.A. 80239
 US PATENTS: 6,566,574 B1 AND 7,271,137 B2

PHONE: 303-373-2696
 MSDS NO: MDF-500-D-000872-A
 ORIGINAL MSDS DATE: 14 OCT 2007
 REVISED: 19 NOV 2008

IDENTIFICATION, COMPOSITION AND INGREDIENTS	
PRODUCT NAME:	Modec Decon Formula 500-D. USEPA Registration No. 80346-3 For Professional Use Only
BRAND:	Modec 500D - Part A Specifically Formulated for HVAC Systems
COMPOSITION:	Biodegradable mixture of cationic detergents and fatty alcohols
HAZARD RATING:	Health: 1; Flammability: 0; Reactivity: 0. (NFPA)
ACTIVE INGREDIENTS:	% OSHA PEL ACGIH
Quaternary Alkyl (50% C ₁₄ , 40% C ₁₂)	
10% C ₁₆ Dimethyl Benzyl ammonium chloride (CAS 68424-85-1)	3.2 Not Established
INERT INGREDIENTS	96.8
TOTAL	100.0
PHYSICAL DATA	
APPEARANCE:	Yellowish clear liquid
ODOR:	Sweet
EVAPORATION RATE:	1 (water=1)
VAPOR PRESSURE:	Unknown
SOLUBILITY IN WATER:	Complete
SPECIFIC GRAVITY:	1.17
pH of CONCENTRATE:	10.6
BOILING POINT:	212° F.
FIRE AND EXPLOSION DATA	
FLAMMABILITY:	Not flammable
EXTINGUISHING MEDIA:	As for surrounding fire
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None
SPECIAL FIRE FIGHTING PROCEDURES:	None
EXPLOSION LIMITS:	N/A
FIRST AID EMERGENCY PROCEDURES	
EYE CONTACT:	Flush eye with cool running water for at least 15 minutes. Call a Physician.
SKIN CONTACT:	Flush with cool running water. If irritation develops, call a Physician.
INGESTION:	Drink promptly several glasses of water or milk. Call a Physician.
BREATHING:	Move to fresh air. If breathing becomes heavy seek medical attention
SPECIAL PROTECTION INFORMATION	
PROTECTIVE GLOVES:	Recommended (rubber or PVC) when working with concentrate.
EYE PROTECTION:	Recommended (goggles, safety glasses) when working with concentrate
LOCAL EXHAUST:	None required for local exhaust, normal dilution ventilation is acceptable.
OTHER EQUIPMENT:	None required
REACTIVITY DATA	
INCOMPATIBLE MATERIALS:	Anionic materials
STABILITY:	Product is stable
POLYMERIZATION:	Will not occur
DECOMPOSITION PRODUCTS:	Thermal decomposition may give off nitrous oxides and ammoniac vapors and carbon dioxide during a fire.
SPILL OR LEAK PROCEDURES AND DISPOSAL	
SPILL:	Contain spill; flush with large excess of water. Avoid large discharges; sorbents may be used.
DISPOSAL:	Remove material or dispose in accordance with all applicable federal, state and local regulations. Material collected with absorbent may be disposed of in permitted landfill
TRANSPORTATION INFORMATION	
DOT:	The product is non-hazardous under DOT Regulations. No special handling procedures are required.
ADDITIONAL INFORMATION	
<p>This MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.</p> <p>The information contained herein has been compiled from sources considered by Modec, Inc. to be dependable and is accurate to the best of the Company's knowledge. No guarantee of accuracy is made. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and disposal considerations. The information relates to the specific materials designated herein, and does not relate to the use in combination with any other material or other process. The listed hazard data herein may reflect the hazards related to the formulation as a whole or to individual components at 100% concentration. Therefore, certain warnings and hazard statements contained on this MSDS may not be applicable to or included in the package labeling.</p> <p>SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This Information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: NONE</p>	

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 US PATENTS: 6,566,574 B1 AND 7,271,137 B2

PHONE: 303-373-2696
 MSDS NO: MDF-500-D-000872-B
 ORIGINAL MSDS DATE: 14 OCT 2007
 REVISED: 19 NOV 2008

IDENTIFICATION, COMPOSITION AND INGREDIENTS			
PRODUCT NAME:	MDF-500-D Part B. USEPA Registration No. 80346-4 For Professional Use Only		
BRAND:	MDF-500– Part B Specifically Formulated for HVAC Systems		
COMPOSITION:	Stabilized Hydrogen Peroxide, water and inert ingredients		
HAZARD RATING:	Health: 0; Flammability: 0; Reactivity: 0. (NFPA)		
ACTIVE INGREDIENTS:	%	TLV LIMIT IN AIR	
Hydrogen Peroxide (7722-84-1)	7.95	1 ppm	
Inert ingredients	92.05		
TOTAL	100.0		
PHYSICAL DATA			
APPEARANCE:	Clear liquid	SOLUBILITY IN WATER:	Complete
ODOR:	Odorless	SPECIFIC GRAVITY:	1.008 g/cm ³
EVAPORATION RATE:	1 (water=1)	pH of CONCENTRATE:	2.275
VAPOR PRESSURE:	23.3 MM HG @ 30 (C)	BOILING POINT:	108 Celsius
FIRE AND EXPLOSION DATA			
FLAMMABILITY:	Not flammable		
EXTINGUISHING MEDIA:	As for surrounding fire, water		
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None		
SPECIAL FIR FIGHTING PROCEDURES:	None		
EXPLOSION LIMITS:	N/A		
HEALTH HAZARD DATA –EFFECTS OF OVEREXPOSURE			
ROUTES OF ENTRY:	Eye contact, skin contact, ingestion, inhalation.		
EYE EFFECT:	May cause transient irritation. Rinse immediately with water		
SKIN EFFECT:	May be transiently irritating to skin. Will cause temporary whitening.		
INGESTION:	If swallowed, consult a physician. Do not induce vomiting. Drink a glass of water.		
INHALATION:	Avoid breathing mist. If inhaled, remove to fresh air. Give oxygen if breathing is difficult.		
CARCINOGENICITY:	This product (or components of its mixture) is not listed in IARC Monographs, the NTP 6 th Annual Report or the current ACGIH TLV's as a carcinogen or potential carcinogen.		
FIRST AID EMERGENCY PROCEDURES			
EYE CONTACT:	Flush eye with cool running water for at least 15 minutes. Call a Physician.		
SKIN CONTACT:	Flush with cool running water. If irritation develops, call a Physician.		
INGESTION:	Drink promptly a glass of water. Call a Physician.		
BREATHING:	Move to fresh air. If breathing becomes heavy seek medical attention		
SPECIAL PROTECTION INFORMATION			
PROTECTIVE:	If skin or contamination of clothing is likely, protective clothing should be worn.		
EYE PROTECTION:	Recommended (goggles, safety glasses).		
RESPIRATORY:	Atmospheric levels should be maintained below the exposure limits listed in Section III by using engineering controls. If not feasible, use supplied air respirator.		
LOCAL EXHAUST:	Provide local exhaust, normal dilution ventilation is acceptable. Refer to Industrial Ventilation by ACGIH for a manual of recommended practices.		
OTHER EQUIPMENT:	None required		
REACTIVITY DATA			
INCOMPATIBLE MATERIALS:	Heavy metal ions, alkalis and combustible materials		
STABILITY:	Product is stable at normal temperatures and storage		
POLYMERIZATION:	Will not occur		
DECOMPOSITION PRODUCTS:	Oxygen which supports combustion.		
SPILL OR LEAK PROCEDURES AND DISPOSAL			
SPILL:	Contain spill; flush with large excess of water. Avoid large discharges; sorbents may be used. See prior sections for hazards and exposure controls. Dike with sand or earth to contain spill. Avoid ignition sources. Transfer to approved DOT drum for recovery or disposal.		
DISPOSAL:	Remove material or dispose in accordance with all applicable federal, state and local regulations. Material collected with absorbent may be disposed of in permitted landfill		
TRANSPORTATION INFORMATION			
DOT REGULATIONS:	The product is non-hazardous under DOT Regulations. No special handling procedures are required.		
ADDITIONAL INFORMATION			
SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This Information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are NONE. This MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health. The information contained herein has been compiled from sources considered by Modec, Inc. to be dependable and is accurate to the best of the Company's knowledge. No guarantee of accuracy is made. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and disposal considerations. The information relates to the specific materials designated herein, and does not relate to the use in combination with any other material or other process. The listed hazard data herein may reflect the hazards related to the formulation as a whole or to individual components at 100% concentration. Therefore, certain warnings and hazard statements contained on this MSDS may not be applicable to or included in the package labeling.			



Modec, Inc.

MATERIAL SAFETY DATA SHEET

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 4725 OAKLAND STREET
 DENVER, COLORADO U.S.A. 80239
 US PATENTS: 6,566,574 B1 AND 7,271,137 B2

PHONE: 303-373-2696
 MSDS NO: MDF-500-D-000872-AB
 MSDS DATE: 14 OCT 2007
 REVISED: 19 NOV 2008

IDENTIFICATION, COMPOSITION AND INGREDIENTS	
PRODUCT NAME:	MDF-500-D Combined for Use EPA Registration No.s: 80346-3/4 For Professional Use Only
BRAND:	MDF-500 – Part A combined with Part B A Specifically Formulated for HVAC Systems
COMPOSITION:	Biodegradable mixture of cationic detergents, hydrogen peroxide and fatty alcohols
HAZARD RATING:	Health: 0; Flammability: 0; Reactivity: 0. (NFPA)
ACTIVE INGREDIENTS:	% OSHA PEL ACGIH
Quaternary Ammonium Compound (CAS 68424-85-1)	1.6 Not Established
Hydrogen Peroxide (7722-84-1)	3.98 1 ppm
INERT INGREDIENTS	94.42
TOTAL	100.0%
PHYSICAL DATA	
APPEARANCE:	Yellowish clear liquid
ODOR:	Sweet
EVAPORATION RATE:	1 (water=1)
VAPOR PRESSURE:	Unknown
SOLUBILITY IN WATER:	Complete
SPECIFIC GRAVITY:	1.11
pH:	9.85
BOILING POINT:	212° F.
FIRE AND EXPLOSION DATA	
FLAMMABILITY:	Not flammable
EXTINGUISHING MEDIA:	As for surrounding fire
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None
SPECIAL FIR FIGHTING PROCEDURES:	None
EXPLOSION LIMITS:	N/A
FIRST AID EMERGENCY PROCEDURES	
EYE CONTACT:	Flush eye with cool running water for at least 15 minutes. Call a Physician.
SKIN CONTACT:	Flush with cool running water. If irritation develops, call a Physician.
INGESTION:	Drink promptly several glasses of water or milk. Call a Physician.
BREATHING:	Move to fresh air. If breathing becomes heavy seek medical attention
SPECIAL PROTECTION INFORMATION	
PROTECTIVE GLOVES:	Recommended (rubber or PVC) when working with concentrate.
EYE PROTECTION:	Recommended (goggles, safety glasses) when working with concentrate
LOCAL EXHAUST:	None required for local exhaust, normal dilution ventilation is acceptable.
OTHER EQUIPMENT:	None required
REACTIVITY DATA	
INCOMPATIBLE MATERIALS:	Anionic materials
STABILITY:	Product is stable
POLYMERIZATION:	Will not occur
DECOMPOSITION PRODUCTS:	Thermal decomposition may give off nitrous oxides and ammoniac vapors and carbon dioxide during a fire.
SPILL OR LEAK PROCEDURES AND DISPOSAL	
SPILL:	Contain spill; flush with large excess of water. Avoid large discharges; sorbents may be used.
DISPOSAL:	Remove material or dispose in accordance with all applicable federal, state and local regulations. Material collected with absorbent may be disposed of in permitted landfill
TRANSPORTATION INFORMATION	
DOT:	The product is non-hazardous under DOT Regulations. No special handling procedures are required.
ADDITIONAL INFORMATION	
<p>This MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.</p> <p>The information contained herein has been compiled from sources considered by Modec, Inc. to be dependable and is accurate to the best of the Company's knowledge. No guarantee of accuracy is made. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and disposal considerations. The information relates to the specific materials designated herein, and does not relate to the use in combination with any other material or other process. The listed hazard data herein may reflect the hazards related to the formulation as a whole or to individual components at 100% concentration. Therefore, certain warnings and hazard statements contained on this MSDS may not be applicable to or included in the package labeling.</p> <p>SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This Information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: NONE</p>	

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 AUTHORIZED SANDIA LICENSEE
 DISTRIBUTED FROM: 4725 OAKLAND ST.
 DENVER, COLORADO 80239

PHONE: 303-287-0186
 MSDS NO: SNL872-500-0205
 MSDS DATE: 12-02-04
 REVISED: 02 FEBRUARY 2005

IDENTIFICATION, COMPOSITION AND INGREDIENTS	
PRODUCT NAME:	Modec Decon Formula 500Concentrate
BRAND:	Modec Decon Formulation: "MDF-500" - Part A
COMPOSITION:	Biodegradable mixture of cationic detergents and fatty alcohols
HAZARD RATING:	Health: 1; Flammability: 0; Reactivity: 0. (NFPA)
ACTIVE INGREDIENTS:	% OSHA PEL ACGIH
Quaternary Ammonium Compounds, Benzyl-C12-18 Alkyl Dimethyl (CAS 68424-85-1)	4.2 Not Established
INERT INGREDIENTS	<u>95.8</u>
TOTAL	100
PHYSICAL DATA	
APPEARANCE:	Yellowish clear liquid
ODOR:	Sweet
EVAPORATION RATE:	1 (water=1)
VAPOR PRESSURE:	Unknown
SOLUBILITY IN WATER:	Complete
SPECIFIC GRAVITY:	1.056
pH of CONCENTRATE:	10.6
BOILING POINT:	212° F.
FIRE AND EXPLOSION DATA	
FLAMMABILITY:	Not flammable
EXTINGUISHING MEDIA:	As for surrounding fire
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None
SPECIAL FIR FIGHTING PROCEDURES:	None
EXPLOSION LIMITS:	N/A
FIRST AID EMERGENCY PROCEDURES	
EYE CONTACT:	Flush eye with cool running water for at least 15 minutes. Call a Physician.
SKIN CONTACT:	Flush with cool running water. If irritation develops, call a Physician.
INGESTION:	Drink promptly several glasses of water or milk. Call a Physician.
BREATHING:	Move to fresh air. If breathing becomes heavy seek medical attention
SPECIAL PROTECTION INFORMATION	
PROTECTIVE GLOVES:	Recommended (rubber or PVC) when working with concentrate.
EYE PROTECTION:	Recommended (goggles, safety glasses) when working with concentrate
LOCAL EXHAUST:	None required for local exhaust, normal dilution ventilation is acceptable.
OTHER EQUIPMENT:	None required
REACTIVITY DATA	
INCOMPATIBLE MATERIALS:	Anionic materials
STABILITY:	Product is stable
POLYMERIZATION:	Will not occur
DECOMPOSITION PRODUCTS:	Thermal decomposition may give off nitrous oxides and ammoniac vapors and carbon dioxide during a fire.
SPILL OR LEAK PROCEDURES AND DISPOSAL	
SPILL:	Contain spill; flush with large excess of water. Avoid large discharges; sorbents may be used.
DISPOSAL:	Remove material or dispose in accordance with all applicable federal, state and local regulations. Material collected with absorbent may be disposed of in permitted landfill
TRANSPORTATION INFORMATION	
DOT:	The product is non-hazardous under DOT Regulations. No special handling procedures are required.
ADDITIONAL INFORMATION	
<p>This MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.</p> <p>The information contained herein has been compiled from sources considered by Modec, Inc. to be dependable and is accurate to the best of the Company's knowledge. No guarantee of accuracy is made. It is the user's responsibility to determine the suitability of this information for the adoption of necessary safety precautions and disposal considerations. The information relates to the specific materials designated herein, and does not relate to the use in combination with any other material or other process. The listed hazard data herein may reflect the hazards related to the formulation as a whole or to individual components at 100% concentration. Therefore, certain warnings and hazard statements contained on this MSDS may not be applicable to or included in the package labeling.</p> <p>SARA requires submission of annual reports of release of toxic chemicals that appear in 40 CFR 372. This Information must be included in all MSDS's that are copied and distributed for this material. Components present in this product at a level which could require reporting under the statute are: NONE</p>	

EMERGENCY TELEPHONE: INFOTRAC 1-800-535-5053



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 AUTHORIZED SANDIA LICENSEE
 DISTRIBUTED FROM: 4725 OAKLAND ST.
 DENVER, COLORADO 80239

PHONE: 303-287-0186
 MSDS NO: SNL872-500-00205
 MSDS DATE: 12-02-04
 REVISED: 02 FEBRUARY 2005

IDENTIFICATION, COMPOSITION AND INGREDIENTS	
PRODUCT NAME:	Stabilized Catalyst for MDF-500 Part B
BRAND:	Modec Decon Formulation MDF-500 – Part B
COMPOSITION:	Stabilized Hydrogen Peroxide, water and inert ingredients
HAZARD RATING:	Health: 0; Flammability: 0; Reactivity: 0. (NFPA)
ACTIVE INGREDIENTS:	% TLV LIMIT IN AIR
Hydrogen Peroxide (7722-84-1)	7.99 1 ppm
Inert ingredients	92.01
TOTAL	100
PHYSICAL DATA	
APPEARANCE:	Clear liquid
ODOR:	Odorless
EVAPORATION RATE:	1 (water=1)
VAPOR PRESSURE:	23.3 MM HG @ 30 (C)
SOLUBILITY IN WATER:	Complete
SPECIFIC GRAVITY:	1.008 g/cm3
pH of CONCENTRATE:	2.275
BOILING POINT:	108 Celsius
FIRE AND EXPLOSION DATA	
FLAMMABILITY:	Not flammable
EXTINGUISHING MEDIA:	As for surrounding fire, water
UNUSUAL FIRE AND EXPLOSION HAZARDS:	None
SPECIAL FIR FIGHTING PROCEDURES:	None
EXPLOSION LIMITS:	N/A
HEALTH HAZARD DATA –EFFECTS OF OVEREXPOSURE	
ROUTES OF ENTRY:	Eye contact, skin contact, ingestion, inhalation.
EYE EFFECT:	May cause transient irritation. Rinse immediately with water
SKIN EFFECT:	May be transiently irritating to skin. Will cause temporary whitening.
INGESTION:	If swallowed, consult a physician. Do not induce vomiting. Drink a glass of water.
INHALATION:	Avoid breathing mist. If inhaled, remove to fresh air. Give oxygen if breathing is difficult.
CARCINOGENICITY:	This product (or components of its mixture) is not listed in IARC Monographs, the NTP 6 th Annual Report or the current ACGIH TLV's as a carcinogen or potential carcinogen.
FIRST AID EMERGENCY PROCEDURES	
EYE CONTACT:	Flush eye with cool running water for at least 15 minutes. Call a Physician.
SKIN CONTACT:	Flush with cool running water. If irritation develops, call a Physician.
INGESTION:	Drink promptly a glass of water. Call a Physician.
BREATHING:	Move to fresh air. If breathing becomes heavy seek medical attention
SPECIAL PROTECTION INFORMATION	
PROTECTIVE:	If skin or contamination of clothing is likely, protective clothing should be worn.
EYE PROTECTION:	Recommended (goggles, safety glasses).
RESPIRATORY:	Atmospheric levels should be maintained below the exposure limits listed in Section III by using engineering controls. If not feasible, use supplied air respirator.
LOCAL EXHAUST:	Provide local exhaust, normal dilution ventilation is acceptable. Refer to Industrial Ventilation by ACGIH for a manual of recommended practices.
OTHER EQUIPMENT:	None required
REACTIVITY DATA	
INCOMPATIBLE MATERIALS:	Heavy metal ions, alkalis and combustible materials
STABILITY:	Product is stable at normal temperatures and storage
POLYMERIZATION:	Will not occur
DECOMPOSITION PRODUCTS:	Oxygen which supports combustion.
SPILL OR LEAK PROCEDURES AND DISPOSAL	
SPILL:	Contain spill; flush with large excess of water. Avoid large discharges; sorbents may be used. See prior sections for hazards and exposure controls. Dike with sand or earth to contain spill. Avoid ignition sources. Transfer to approved DOT drum for recovery or disposal.
DISPOSAL:	Remove material or dispose in accordance with all applicable federal, state and local regulations. Material collected with absorbent may be disposed of in permitted landfill
TRANSPORTATION INFORMATION	
DOT REGULATIONS:	The product is non-hazardous under DOT Regulations. No special handling procedures are required.
ADDITIONAL INFORMATION	
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