

MATERIAL SAFETY DATA SHEET

MODEC DECON FORMULATION MDF-200

	PART A	PART B	ACCELERATOR PART C	FOAM
Product Name	Modec Decon Formula 200 Part A, as supplied	Stabilized Catalyst - MDF Part B, as supplied	MDF Accelerant Part C, as supplied	Modec Decon Formula MDF-200 Decon Foam - Parts A, B & C combined for use
Brand	Modec Decon Formulation ("MDF 200") Part A	Modec Decon Formulation ("MDF 200") Part B	MDF Accelerant (Diacetin)	Modec Decon Formulation MDF-200 - As Used
Composition	Biodegradable mixture of cationic detergents and fatty alcohols	Stabilized Hydrogen Peroxide, water and inert ingredients	Glyceryl Diacetate	Biodegradable mixture of cationic detergents, peroxide and fatty alcohols
NFPA Hazard Rating	Health: 1; Flammability: 0; Reactivity: 0	Health: 0; Flammability: 0; Reactivity: 0	Health: 0; Flammability: 0; Reactivity: 0	Health: 1; Flammability: 0; Reactivity: 0 (NFPA)
Active Ingredients	N,N,N,N',N'-Pentamethyl,n'-Tallow Alkyl 1,3-Propanamine Diammonium (2%); OSHA PEL ACGIH – not established Chloride; n-Tallow Pentamethyl Propane (CAS 68607-29-4) Quaternary Ammonium Compounds, Benzyl C12-18 Alkyl Dimethyl (CAS 68391-01-5) (3.2%); OSHA PEL ACGIH not established Isopropyl Alcohol (CAS 67-63-0) (1%) OSHA PEL ACGIH - 440 PPM INERT INGREDIENTS/WATER (92.98%)	Hydrogen Peroxide (CAS 7722-84-1) (7.99%); TLV Limit in Air: 1 ppm INERT INGREDIENTS/WATER (92.01%)	Glycol Diacetate, CAS No. 25395-31-7 (100%)	N,N,N,N',N'-Pentamethyl, N'-TallowAlkyl 1,3-Propanamine Diammonium (1%) OSHA PEL ACGIH – not established Chloride; n-Tallow Pentamethyl Propane (CAS 68607-29-4) Quaternary Ammonium, Benzyl-C12-18 Alkyl Dimethyl (68391-01-5) (1.6%) OSHA PEL ACGIH – not established Glycol Diacetate (25395-31-7) (1.8%) Isopropyl Alcohol (CAS 67-63-0) (.5%) Hydrogen Peroxide (7722-84-1) (3.99%) INERT INGREDIENTS AND WATER (91.11%)
PHYSICAL DATA				
Appearance	Yellowish clear liquid	Clear liquid	Clear liquid	Light yellowish, clear liquid
Odor	Sweet	Odorless	Slight	Soap
Evaporation Rate	1 (water = 1)	1 (water = 1)	< 0.07 (BuAc=1)	1 (water=1)
Vapor Pressure	Unknown	Unknown	<1 mmHg	Unknown
Solubility in Water	Complete	Complete	Miscible	Complete
Specific Gravity	1.11	1.04	1.18 at 20° C	1.057
pH of Concentrate	10.3	2.1	N/A	9.8
Boiling Point	212° F	108° Celsius	280° Celsius	212° F
FIRE AND EXPLOSION DATA				
Flammability	Not flammable	Not flammable	Decomposes at 280° Celsius	Not flammable
Extinguishing Media	As for surrounding fire	As for surrounding fire, water	Water spray, carbon dioxide, dry chemical powder or appropriate foam.	As for surrounding fire
Unusual Fire Hazards	None	None	Emits acrid fumes under fire conditions.	None
Fire Fighting	None	None	None	None
Explosion Limits	N/A	N/A	N/A	N/A
HEALTH HAZARD DATA – EFFECTS OF OVEREXPOSURE				
Routes of Entry	Eye contact, skin contact, ingestion, inhalation	Eye contact, skin contact, ingestion, inhalation	Eye contact, skin contact, ingestion, inhalation	Eye contact, skin contact, ingestion, inhalation
Eye Effect	May cause transient irritation. Rinse immediately with water.	May cause transient irritation. Rinse immediately with water.	May cause mild eye irritation.	May cause eye irritation.
Skin Effect	Irritating to skin.	Transiently irritating to skin. Will cause temporary whitening.	Prolonged contact may cause skin irritation	May cause skin irritation.
Ingestion	If swallowed, consult a physician. Do not induce vomiting. Drink a glass of water.	If swallowed, consult a physician. Do not induce vomiting. Drink a glass of water.	Effect not known for large dosage. None for small dosage. Do not induce vomiting.	May be harmful if swallowed.
Inhalation	Avoid breathing mist. If inhaled, remove to fresh air. Give oxygen if breathing is difficult.	Avoid breathing mist. If inhaled, remove to fresh air. Give oxygen if breathing is difficult.	No respiratory protection required unless subject to mist contact.	Avoid inhaling fumes directly. May be irritating to mucous membranes and upper respiratory tract.
Carcinogenicity	This product (or components of its mixture) is not listed in IARC Monographs, the NTP 6 th Annual Report of the current ACGIH TLV's as a carcinogen or potential carcinogen.	This product (or components of its mixture) is not listed in IARC Monographs, the NTP 6 th Annual Report of the current ACGIH TLV's as a carcinogen or potential carcinogen.	Not listed on Cancer Lists. An LD50 Oral rat is 400 mg/kg and mouse 8,500 mg/kg. Mammalian cell mutation assay - no mutagenic effects.	Not listed on Cancer Lists.

FIRST AID EMERGENCY PROCEDURES

Eye Contact	Flush eye with cool running water for at least 15 minutes. If irritation persists, call a physician.	Flush eye with cool running water for at least 15 minutes. If irritation persists, call a physician.	Flush eye with cool running water for at least 15 minutes. If irritation persists, call a physician.	Flush eye with cool running water for at least 15 minutes. If irritation persists, call a physician.
Skin Contact	Flush with cool running water. If irritation develops, call a physician.	Flush with cool running water. If irritation develops, call a physician.	Flush with cool running water. If irritation develops, call a physician.	Flush with cool running water. If irritation develops, call a physician.
Ingestion	Drink promptly several glasses of water or milk. Call a physician.	Drink promptly several glasses of water or milk. Call a physician.	Drink promptly several glasses of water or milk. Call a physician.	Drink promptly several glasses of water or milk. Call a physician.
Breathing	Move to fresh air. If breathing becomes heavy, seek medical attention.	Move to fresh air. If breathing becomes heavy, seek medical attention.	Move to fresh air. If breathing becomes heavy, seek medical attention.	Move to fresh air. If breathing becomes heavy, seek medical attention.

SPECIAL PROTECTION INFORMATION

Skin protection	Protective gloves recommended (rubber or PVC) when working with concentrate.	If skin or contamination of clothing is likely, protective clothing should be worn.	If skin or contamination of clothing is likely, protective clothing should be worn.	If skin or contamination of clothing is likely, protective clothing should be worn.
Eye protection	Recommended (goggles, safety glasses) when working with concentrate	Recommended (goggles, safety glasses) when working with concentrate	Recommended (goggles, safety glasses) when working with concentrate	Recommended (goggles, safety glasses) when working with concentrate
Respiratory	Atmospheric levels should be maintained below the exposure limits listed of the TLV by using engineering controls. If not feasible, use supplied air respirator.	Atmospheric levels should be maintained below the exposure limits listed of the TLV by using engineering controls. If not feasible, use supplied air respirator.	Atmospheric levels should be maintained below the exposure limits listed of the TLV by using engineering controls. If not feasible, use supplied air respirator.	Atmospheric levels should be maintained below the exposure limits listed of the TLV by using engineering controls. If not feasible, use supplied air respirator.
Local Exhaust	None required for local exhaust, normal dilution ventilation is acceptable.	Provide local exhaust, normal dilution ventilation is acceptable. Refer to Industrial Ventilation by ACGIH for a manual of recommended practices.	Provide local exhaust, normal dilution ventilation is acceptable. Refer to Industrial Ventilation by ACGIH for a manual of recommended practices.	Provide local exhaust, normal dilution ventilation is acceptable. Refer to Industrial Ventilation by ACGIH for a manual of recommended practices.
Other Equipment	None required	None required	None required	None required

REACTIVITY DATA

Incompatibility Data	Anionic materials	Heavy metal ions, alkalis and combustible materials	Strong oxidizing agents.	Anionic materials
Stability	Product is stable	Product is stable at normal temperatures and storage	Product is stable.	Product is stable
Polymerization	Will not occur	Will not occur	Will not occur.	Will not occur
Decomposition products	Thermal decomposition may give off nitrous oxides and ammoniac vapors and carbon dioxide during a fire	Oxygen, which supports combustion.	Emits acrid fumes under fire conditions	Thermal decomposition may give off nitrous oxides and ammoniac vapors and carbon dioxide during a fire
Hazardous Combustion Products	None	None	Carbon monoxide, carbon dioxide	Carbon monoxide, carbon dioxide

SPILL OR LEAK PROCEDURES AND DISPOSAL

Spill	Contain spill; flush with large excess of water. Avoid large discharges; sorbents may be used	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.	Wear respirators, chemical safety goggles, rubber boots and heavy rubber gloves. Ventilate area and wash spill site after material pickup is complete.	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.	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.	Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and scrubber. Observe all federal, state and local environmental regulations.	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 pursuant to 49 CFR Section 172.	The product is non-hazardous under DOT Regulations. No special handling procedures are required pursuant to 49 CFR Section 172.	The product is non-hazardous under DOT Regulations. No special handling procedures are required. Material is considered biodegradable.	The product is non-hazardous under DOT Regulations. No special handling procedures are required. Not considered hazardous pursuant to 49 CFR 172.
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ADDITIONAL INFORMATION

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 Modex, 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.

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.

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Applicable to the following configurations: MDF-200-5 (NSN 6850-01-501-0233); MDF-200-10 (NSN 6850-01-501-0240); MDF-200-55 (NSN 6850-01-502-2131) MDF-200-110 (NSN 6850-01-501-2891), MDF-200-500 (NSN 6850-01-506-5627) and MDF-200-600 (NSN6850-01-501-2834).

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MSDS No: SNL872-200-0908 - Revised: 19 NOV 2008