

SECTION 1 - Chemical Product & Company Identification

Product Name Detergent Screen™

Product Number HR2-408

Company Hampton Research

Street Address 34 Journey

City, State, Zip, Country Aliso Viejo, CA 92656, USA

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For International **CHEMTREC** Assistance, call: 703 527 3887

SECTION 2 - Composition / Information on Ingredient

| Substance Name | MF | CAS # | % | SARA | RTECS | LD50 | UN # |
|--------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------|-------------|----|------|-----------|-------------|------|
| 2,6-Dimethyl-4-heptyl-β-D-malto-pyranoside | C ₂₁ H ₄₀ O ₁₁ | 869638-31-3 | <1 | N/A | N/A | N/A | N/A |
| ANAPOE® -20 | C ₅₈ H ₁₁₄₀ | 9005-64-5 | <1 | N/A | TR7400000 | 37 mg/kg | N/A |
| ANAPOE® -35 | (C ₂ H ₄ O) _n C ₁₂ H ₂₆ O, n ~ 23 | 9002-92-0 | <1 | no | N/A | 8600 mg/kg | N/A |
| ANAPOE® -58 | (C ₂ H ₄ O) _n C ₁₆ H ₃₄ O, n ~ 20 | 9004-95-9 | <1 | no | N/A | 3590 mg/kg | N/A |
| ANAPOE® -80 | C ₆₄ H ₁₂₄ O ₂₆ | 9005-65-6 | <1 | N/A | WG2932500 | 25 gm/kg | N/A |
| ANAPOE® -C ₁₀ E ₆ | (C ₂ H ₄ O) _n C ₁₀ H ₂₂ O, n ~ 6 | 5168-89-8 | <1 | yes | N/A | N/A | N/A |
| ANAPOE® -C ₁₀ E ₉ | (C ₂ H ₄ O) _n C ₁₀ H ₂₂ O, n ~ 9 | 26183-52-81 | <1 | N/A | N/A | N/A | N/A |
| ANAPOE® -C ₁₂ E ₈ | C ₂₈ H ₅₈ O ₉ | 3055-98-9 | <1 | no | N/A | N/A | N/A |
| ANAPOE® -C ₁₂ E ₉ | (C ₂ H ₄ O) _n C ₁₂ H ₂₆ O, n ~ 9 | 3055-99-0 | <1 | no | N/A | N/A | N/A |
| ANAPOE® -C ₁₂ E ₁₀ | (C ₂ H ₄ O) _n C ₁₂ H ₂₆ O, n ~ 10 | 6540-99-4 | <1 | no | N/A | N/A | N/A |
| ANAPOE® -C ₁₃ E ₈ | (C ₂ H ₄ O) _n C ₁₃ H ₂₈ O, n ~ 8 | 9043-30-5 | <1 | yes | N/A | 1-5 g/kg | N/A |
| ANAPOE® -X-114 | t-Oct-C ₆ H ₄ -(OCH ₂ CH ₂) _n OH, n ~ 7-8 | 9036-19-5 | <1 | N/A | MD0907600 | 4190 mg/kg | N/A |
| ANAPOE® -X-305 | t-Oct-C ₆ H ₄ -(OCH ₂ CH ₂) _n OH, n ~ 30 | 9002-93-1 | <1 | no | N/A | N/A | N/A |
| ANAPOE® -X-405 | t-Oct-C ₆ H ₄ -(OCH ₂ CH ₂) _n OH, n ~ 40 | 9002-93-1 | <1 | no | N/A | N/A | N/A |
| BAM | CH ₃ (CH ₂) ₁₁ N(Br)(CH ₃) ₂ CH ₂ C ₆ H ₅ | 7281-04-1 | <1 | no | BO7875000 | 230 mg/kg | 2811 |
| Big CHAP, deoxy | C ₄₂ H ₇₅ N ₃ O ₁₅ | 86303-23-3 | <1 | no | N/A | N/A | N/A |
| C ₈ E ₄ | C ₁₆ H ₃₄ O ₅ | 19327-39-0 | <1 | N/A | XC2100000 | 28900 ul/kg | N/A |
| C ₈ E ₅ | C ₁₈ H ₃₈ O ₆ | 19327-40-3 | <1 | N/A | N/A | N/A | N/A |
| CHAPS | C ₃₂ H ₅₈ N ₂ O ₇ S | 75621-03-3 | <1 | no | N/A | N/A | N/A |
| CHAPSO | C ₃₂ H ₅₈ N ₂ O ₈ S | 82473-24-3 | <1 | N/A | N/A | N/A | N/A |

(CONTINUED) - SECTION 2 - Composition / Information on Ingredient

| Substance Name | MF | CAS # | % | SARA | RTECS | LD50 | UN # |
|----------------------------------------------------|-------------------------------------------------------------------|-------------|----|------|-----------|-------------|------|
| C-HEGA [®] -8 | C ₁₆ H ₃₁ NO ₇ | 603111-75-7 | <1 | N/A | N/A | N/A | N/A |
| C-HEGA [®] -9 | C ₁₇ H ₃₃ NO ₇ | 864434-14-0 | <1 | N/A | N/A | N/A | N/A |
| C-HEGA [®] -10 | C ₁₈ H ₃₅ NO ₇ | 864434-15-1 | <1 | N/A | N/A | N/A | N/A |
| C-HEGA [®] -11 | C ₁₉ H ₃₇ NO ₇ | 864434-16-2 | <1 | N/A | N/A | N/A | N/A |
| CTAB | C ₁₉ H ₄₂ BrN | 57-09-0 | <1 | no | BQ7875000 | 410 mg/kg | 3077 |
| CYCLOFOS™-3 | C ₁₄ H ₃₀ NO ₄ P | 823796-66-3 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -1 | C ₁₉ H ₃₄ O ₁₁ | 260804-64-6 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -2 | C ₂₀ H ₃₆ O ₁₁ | 260804-65-7 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -3 | C ₂₁ H ₃₈ O ₁₁ | 181135-58-0 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -4 | C ₂₂ H ₄₀ O ₁₁ | 181135-57-9 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -5 | C ₂₃ H ₄₂ O ₁₁ | 250692-65-0 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -6 | C ₂₄ H ₄₄ O ₁₁ | 228579-27-9 | <1 | N/A | N/A | N/A | N/A |
| CYMAL [®] -7 | C ₂₅ H ₄₆ O ₁₁ | 349477-49-2 | <1 | N/A | N/A | N/A | N/A |
| DDAO | C ₁₂ H ₂₇ NO | 2605-79-0 | <1 | no | N/A | N/A | N/A |
| DDMAB | C ₁₈ H ₃₇ NO ₂ | N/A | <1 | no | N/A | N/A | N/A |
| Deoxycholic acid sodium salt | C ₂₄ H ₃₉ O ₄ Na | 302-95-4 | <1 | no | FZ2250000 | 1370 mg/kg | N/A |
| Dimethyloctylphosphine oxide | C ₁₀ H ₂₃ OP | 13232-68-3 | <1 | N/A | N/A | N/A | N/A |
| Dodecyltrimethylammonium chloride | C ₁₅ H ₃₄ ClN | 112-00-5 | <1 | N/A | JR2122500 | N/A | N/A |
| FOS-Choline [®] -8 | C ₁₃ H ₃₀ NO ₄ P | 53255-89-3 | <1 | N/A | N/A | N/A | N/A |
| FOS-Choline [®] -8, fluorinated | C ₁₃ H ₁₇ F ₁₃ NO ₄ P | N/A | <1 | no | N/A | N/A | N/A |
| FOS-Choline [®] -9 | C ₁₄ H ₃₂ NO ₄ P | 253678-64-7 | <1 | N/A | N/A | N/A | N/A |
| FOS-Choline [®] -10 | C ₁₅ H ₃₄ NO ₄ P | 70504-28-8 | <1 | N/A | N/A | N/A | N/A |
| FOS-Choline [®] -12 | C ₁₇ H ₃₈ NO ₄ P | 29557-51-5 | <1 | N/A | N/A | N/A | N/A |
| FOS-MEA [®] -10 | C ₁₃ H ₃₀ NO ₄ P | 557788-85-9 | <1 | N/A | N/A | N/A | N/A |
| HECAMEG [®] | C ₁₅ H ₂₉ NO ₇ | 115457-93-5 | <1 | no | N/A | N/A | N/A |
| HEGA [®] -8 | C ₁₆ H ₃₃ NO ₇ | 869652-63-1 | <1 | N/A | N/A | N/A | N/A |
| HEGA [®] -9 | C ₁₇ H ₃₅ NO ₇ | 869653-90-7 | <1 | N/A | N/A | N/A | N/A |
| HEGA [®] -10 | C ₁₈ H ₃₇ NO ₇ | 139361-84-5 | <1 | N/A | N/A | N/A | N/A |
| Hexaethylene glycol monoethyl ether | C ₂₀ H ₄₂ O ₇ | 4440-54-4 | <1 | N/A | N/A | N/A | N/A |
| IPTG | C ₉ H ₁₈ O ₅ S | 367-93-1 | <1 | N/A | N/A | N/A | N/A |
| LDAO | C ₁₄ H ₃₁ NO | 1643-20-5 | <1 | no | N/A | 1-5 gm/kg | N/A |
| LysoFos™ Choline 10 | C ₁₈ H ₃₈ NO ₇ P | 22248-63-1 | <1 | N/A | N/A | N/A | N/A |
| LysoFos™ Choline 12 | C ₂₀ H ₄₂ NO ₇ P | 20559-18-6 | <1 | N/A | N/A | N/A | N/A |
| MEGA-8 | C ₁₅ H ₃₁ NO ₆ | 85316-98-9 | <1 | N/A | N/A | N/A | N/A |
| MEGA-9 | C ₁₆ H ₃₃ NO ₆ | 85261-19-4 | <1 | N/A | N/A | N/A | N/A |
| MEGA-10 | C ₁₇ H ₃₅ NO ₆ | 85261-20-7 | <1 | N/A | N/A | N/A | N/A |
| n-Decanoylsucrose | C ₂₂ H ₄₀ O ₁₂ | 31835-06-0 | <1 | no | N/A | N/A | N/A |
| n-Decyl-β-D-maltoside | C ₂₂ H ₄₂ O ₁₁ | 82494-09-5 | <1 | N/A | N/A | N/A | N/A |
| n-Decyl-β-D-thiomaltoside | C ₂₂ H ₄₂ O ₁₀ S | 14565-56-4 | <1 | N/A | N/A | N/A | N/A |
| n-Decyl-N,N-dimethylglycine | C ₁₄ H ₂₉ O ₂ N | 2644-45-3 | <1 | N/A | N/A | N/A | N/A |
| n-Dodecyl-β-D-maltoside | C ₂₄ H ₄₆ O ₁₁ | 69227-93-6 | <1 | N/A | N/A | N/A | N/A |
| n-Dodecyl-β-iminodipropionic acid, monosodium salt | C ₁₈ H ₃₄ NO ₄ Na | 14960-06-6 | <1 | N/A | N/A | > 31.3 g/kg | N/A |
| n-Dodecyl-N,N-dimethylglycine | C ₁₆ H ₃₃ O ₂ N | 683-10-3 | <1 | N/A | N/A | N/A | N/A |

(CONTINUED) - SECTION 2 - Composition / Information on Ingredient

| Substance Name | MF | CAS # | % | SARA | RTECS | LD50 | UN # |
|-----------------------------------|-----------------------------------------------------------------------------------------------------|-------------|----|------|-----------|------------|------|
| NDSB-195 | C ₇ H ₁₇ NO ₃ S | 160255-06-1 | <1 | no | N/A | N/A | N/A |
| NDSB-201 | C ₈ H ₁₁ NO ₃ S | 15471-17-7 | <1 | no | N/A | N/A | N/A |
| NDSB-211 | C ₇ H ₁₇ NO ₄ S | 38880-58-9 | <1 | no | N/A | N/A | N/A |
| NDSB-221 | C ₉ H ₁₉ NO ₃ S | 160788-56-7 | <1 | no | N/A | N/A | N/A |
| NDSB-256 | C ₁₂ H ₁₉ NO ₃ S | 81239-45-4 | <1 | no | N/A | N/A | N/A |
| n-Heptyl-β-D-thioglucopyranoside | C ₁₃ H ₂₆ O ₅ S | 85618-20-8 | <1 | no | N/A | N/A | N/A |
| n-Hexadecyl-β-D-maltoside | C ₂₈ H ₅₄ O ₁₁ | 98064-96-1 | <1 | N/A | N/A | N/A | N/A |
| n-Hexyl-β-D-glucopyranoside | C ₁₂ H ₂₄ O ₆ | 59080-45-4 | <1 | no | N/A | N/A | N/A |
| n-Nonyl-β-D-glucoside | C ₁₅ H ₃₀ O ₆ | 69984-73-2 | <1 | N/A | N/A | N/A | N/A |
| n-Nonyl-β-D-maltoside | C ₂₁ H ₄₀ O ₁₁ | 106402-05-5 | <1 | N/A | N/A | N/A | N/A |
| n-Nonyl-β-D-thioglucoside | C ₁₅ H ₃₀ O ₅ S | 98854-15-0 | <1 | N/A | N/A | N/A | N/A |
| n-Nonyl-β-D-thiomaltoside | C ₂₁ H ₄₀ O ₁₀ S | 148565-55-3 | <1 | N/A | N/A | N/A | N/A |
| n-Octanoylsucrose | C ₂₀ H ₃₆ O ₁₂ | N/A | <1 | no | N/A | N/A | N/A |
| n-Octyl-β-D-galactopyranoside | C ₁₄ H ₂₈ O ₆ | 40427-75-6 | <1 | N/A | N/A | N/A | N/A |
| n-Octyl-β-D-glucoside | C ₁₄ H ₂₈ O ₆ | 29836-26-8 | <1 | N/A | N/A | N/A | N/A |
| n-Octyl-β-D-thioglucoside | C ₁₄ H ₂₈ O ₅ S | 85618-21-9 | <1 | N/A | N/A | N/A | N/A |
| n-Octyl-β-D-thiomaltoside | C ₂₀ H ₃₈ O ₁₀ S | 148616-91-5 | <1 | N/A | N/A | N/A | N/A |
| n-Tetradecyl-β-D-maltoside | C ₂₆ H ₅₀ O ₁₁ | 18449-82-6 | <1 | N/A | N/A | N/A | N/A |
| n-Tridecyl-β-D-maltoside | C ₂₅ H ₄₈ O ₁₁ | 93911-12-7 | <1 | N/A | N/A | N/A | N/A |
| n-Undecyl-β-D-maltoside | C ₂₃ H ₄₄ O ₁₁ | 253678-67-0 | <1 | N/A | N/A | N/A | N/A |
| n-Undecyl-N,N-Dimethylamine-Oxide | C ₁₃ H ₂₉ NO | 15178-71-9 | <1 | no | N/A | N/A | N/A |
| Octyl maltoside, fluorinated | C ₂₀ H ₂₅ F ₁₃ O ₁₁ | N/A | <1 | no | N/A | N/A | N/A |
| Pluronic [®] F-68 | EO ₇₈ PO ₃₀ EO ₇₈ | 9003-11-6 | <1 | N/A | N/A | 15 g/kg | N/A |
| Sodium cholate | C ₂₄ H ₃₉ O ₅ Na | 361-09-1 | <1 | N/A | FZ960000 | 2400 mg/kg | N/A |
| Sodium dodecanoyl sarcosine | C ₁₅ H ₂₉ NO ₃ Na | 137-16-6 | <1 | N/A | N/A | N/A | N/A |
| Sodium dodecyl sulfate | C ₁₂ H ₂₆ O ₄ SNa | 151-21-3 | <1 | N/A | WT1050000 | 1288 mg/kg | N/A |
| Sucrose monolaurate | C ₂₄ H ₄₄ O ₁₂ | 25339-99-5 | <1 | no | N/A | N/A | N/A |
| Thesit [®] | HO(CH ₂ CH ₂ O) _n (CH ₂) ₁₁ CH ₃ | 9002-92-0 | <1 | no | MD0875000 | 1170 mg/kg | N/A |
| TRITON [®] X-100 | C ₃₄ H ₆₂ O ₁₁ | 9002-93-1 | <1 | no | MD0907700 | N/A | N/A |
| ZWITTERGENT [®] 3-08 | C ₁₃ H ₂₉ NSO ₃ | 15178-76-4 | <1 | N/A | N/A | N/A | N/A |
| ZWITTERGENT [®] 3-10 | C ₁₅ H ₃₃ NO ₃ S | 15163-36-7 | <1 | N/A | N/A | N/A | N/A |
| ZWITTERGENT [®] 3-12 | C ₁₇ H ₃₇ NO ₃ S | 14933-08-5 | <1 | N/A | N/A | N/A | N/A |
| ZWITTERGENT [®] 3-14 | C ₁₉ H ₄₁ NO ₃ S | 14933-09-6 | <1 | N/A | N/A | N/A | N/A |

SECTION 3 - Hazards Identification

HMIS RATING

HEALTH HAZARD: 0

FLAMMABILITY: 0

REACTIVITY: 0

NFPA RATING

HEALTH HAZARD: 0

FLAMMABILITY: 0

REACTIVITY: 0

For additional information on toxicity, please refer to **SECTION 11**.

SECTION 4 - First Aid Measures

ORAL EXPOSURE

- If swallowed, wash out mouth with water provided person is conscious.
- DO NOT INDUCE VOMITING.
- Call a physician.

INHALATION EXPOSURE

- If inhaled, remove to fresh air.
- If breathing is difficult, GIVE OXYGEN.
- Call a physician.

DERMAL EXPOSURE

- In case of contact, immediately wash skin with soap and copious amounts of water for at least 15 minutes.
- Remove contaminated clothing and shoes.
- Call a physician.

EYE EXPOSURE

- In case of contact with eyes, flush with copious amounts of water for at least 15 minutes.
- Assure adequate flushing by separating the eyelids with fingers.
- Call a physician.

SECTION 5 - Fire Fighting Measures

FLASH POINT

N/A

FLAMMABILITY

N/A

(CONTINUED) - SECTION 5 - Fire Fighting Measures

AUTOIGNITION TEMPERATURE

N/A

EXTINGUISHING MEDIA

- Suitable: Water spray, Carbon dioxide, dry chemical powder, or appropriate foam.

FIREFIGHTING

- Protective Equipment: Wear self-contained breathing apparatus and protective clothing to prevent contact with skin and eyes.

SECTION 6 - Accidental Release Measures

PROCEDURE(S) OF PERSONAL PRECAUTIONS

- Exercise appropriate precautions to minimize direct contact with skin or eyes and prevent inhalation of dust.

METHODS FOR CLEANING UP

- Wash spill site with soap solution. Flush spill area with copious amounts of water.
- Place in appropriate container.

SECTION 7 - Handling & Storage

HANDLING

- User Exposure
 - Avoid inhalation.
 - Avoid contact with eyes, skin, and clothing.
 - Avoid prolonged or repeated exposure.

STORAGE

- Suitable: Keep tightly closed.
- Store 2-8 ° C

SECTION 8 - Exposure Controls / PPE

ENGINEERING CONTROLS

- Mechanical exhaust required.
- Safety shower and eye bath

PERSONAL PROTECTIVE EQUIPMENT

- Respiratory: Use respirators and components tested and approved under appropriate government standards such as (NIOSH) or CEN (EU). Respiratory protection is not required. Where protection from nuisance levels of dust are desired, use type N95 (US) or type (P1) (EN 143) dust masks.

(CONTINUED) - SECTION 8 - Exposure Controls / PPE

- Hand: Compatible chemical-resistant gloves.
- Eye: Chemical safety goggles.

GENERAL HYGIENE MEASURES

- Wash thoroughly after handling.

SECTION 9 - Physical / Chemical Properties

APPEARANCE

PHYSICAL STATE: Liquid

PROPERTY

VALUE

AT TEMPERATURE OR PRESSURE

| | |
|-------------------------------|-----|
| Molecular Weight | N/A |
| pH | N/A |
| BP / BP Range | N/A |
| MP / MP Range | N/A |
| Freezing Point | N/A |
| Vapor Pressure | N/A |
| Vapor Density | N/A |
| Saturated Vapor Concentration | N/A |
| SG / Density | N/A |
| Bulk Density | N/A |
| Odor Threshold | N/A |
| Volatile % | N/A |
| VOC Content | N/A |
| Water Content | N/A |
| Solvent Content | N/A |
| Evaporation Rate | N/A |
| Viscosity | N/A |
| Surface Tension | N/A |
| Partition Coefficient | N/A |
| Decomposition Temperature | N/A |
| Flash Point | N/A |
| Explosion Limits | N/A |
| Flammability | N/A |
| Autoignition Temperature | N/A |
| Refractive Index | N/A |
| Optical Rotation | N/A |
| Miscellaneous Data | N/A |
| Solubility | N/A |

N/A = NOT AVAILABLE

SECTION 10 - Stability & Reactivity

STABILITY

- Stable: Stable.
- Materials to Avoid: Strong oxidizing reagents.

HAZARDOUS DECOMPOSITION PRODUCTS

- Carbon monoxide
- Carbon dioxide

HAZARDOUS EXOTHERMIC REACTIONS

- Will not occur.

HAZARDOUS POLYMERIZATION

- Will not occur.

SECTION 11 - Toxicological Information

ROUTE OF EXPOSURE

- Skin Contact: May cause skin irritation
- Skin Absorption: May be harmful if absorbed through the skin.
- Eye Contact: May cause eye irritation.
- Inhalation: Material may be irritating to mucous membranes and upper respiratory tract.
May be harmful if inhaled.
- Ingestion: May be harmful if swallowed.

SIGNS & SYMPTOMS OF EXPOSURE

- To the best of our knowledge, the chemical, physical, and toxicological properties have NOT been thoroughly investigated.

SECTION 12 - Ecological Information

- No data available.

SECTION 13 - Disposal Considerations

APPROPRIATE METHOD OF DISPOSAL OF SUBSTANCE OR PREPARATION

- Contact a licensed professional waste disposal service to dispose of this material.
- Dissolve or mix the material with a combustible solvent and burn in a chemical incinerator equipped with an afterburner and a scrubber.
- Observe all federal, state, and local environmental regulations.

SECTION 14 - Transportation Information

DOT

- Proper Shipping Name: NONE
- Non-Hazardous for Transport: This substance is considered to be non-hazardous for transport.

IATA

- Non-Hazardous for Transport: Non-hazardous for air transport.

SECTION 15 - Regulatory Information

UNITED STATES REGULATORY INFORMATION

- SARA LISTED: NO

CANADA REGULATORY INFORMATION

- WHMIS Classification: This product has been classified in accordance with the hazard criteria of the CPR, and the MSDS contains all the information required by the CPR.
- DSL: No
- NDSL: No

SECTION 16 - Other Information

DISCLAIMER

- For R&D use only. Not for drug, household, or other use.

WARRANTY

• The above information is believed to be correct but does no purport to be all inclusive and shall be used only as a guide. The information in this document is based on the present state of our knowledge and is applicable to the product with regard to appropriate safety precautions. It does not represent any guarantee of the properties of this product. Hampton Research Corp., shall not be held liable for any damage resulting from handling or from contact with the above product. See reverse side of invoice or packing slip for additional terms and conditions of sale.

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