

TORT SURACE CLEANING LABORATORY

CLEANING CHEMICAL QUESTIONNAIRE

See letter for submission instructions.

Material Safety Data Sheet (MSDS)
MUST Be Attached
(and Technical Data Sheet, if available)

1. Product/Trade Name (Please use a separate questionnaire for each cleaning chemical you want listed in the Directory: HD-34 Cleaner/Degreaser Generic Chemical Family: _____

Meets Specified Standard(s): ASTM: _____ Mil Spec: _____ FDA: _____ Other: _____

Primary Cleaner Classification (Check only one):

- | | | | |
|---|--|---|---------------------------------------|
| <input type="checkbox"/> Acidic Aqueous | <input checked="" type="checkbox"/> Semi-Aqueous | <input type="checkbox"/> Powder detergent | <input type="checkbox"/> Extracting |
| <input type="checkbox"/> Neutral Aqueous | <input type="checkbox"/> Terpene | <input type="checkbox"/> Enzymatic/ | <input type="checkbox"/> HCFC |
| <input type="checkbox"/> Alkaline Aqueous | <input type="checkbox"/> Petroleum distillate | Microbial | <input type="checkbox"/> Alcohol |
| <input type="checkbox"/> Caustic | <input type="checkbox"/> Organic | <input type="checkbox"/> Blasting | <input type="checkbox"/> Other: _____ |

2. Chemical Constituents (Check all that apply & specify) Example ☒ Builder: Sodium Hydroxide 50% (as Concentrate)

Cleaner Containing:

At Least Some Water (50 %)

OR No/Minimal Water

- | | | |
|--|--|---|
| <input type="checkbox"/> Builder: _____ | <input type="checkbox"/> Water conditioner/Sequestering/ | <input type="checkbox"/> Supercritical fluid: _____ |
| <input type="checkbox"/> Surfactant: _____ | Chelating agent: _____ | |
| <input checked="" type="checkbox"/> Emulsifier: <u>Proprietary</u> | <input type="checkbox"/> Corrosion inhibitor/Rust | <input type="checkbox"/> Blasting medium: _____ |
| <input type="checkbox"/> Saponifier: _____ | prohibitor: _____ | |
| <input checked="" type="checkbox"/> Other: <u>Dimethyl Ester</u> | <input type="checkbox"/> Anti-microbial: _____ | <input type="checkbox"/> Other: _____ |
| <input type="checkbox"/> Rinse aid/Silicate: _____ | | |

3. Industrial Applications (Number all that apply, Most Used = 1)

- | | | | |
|---|---|--|---|
| <input type="checkbox"/> Aerospace/Military | <input checked="" type="checkbox"/> Metal Finishing | <input type="checkbox"/> PCBs | <input type="checkbox"/> Semiconductors |
| <input type="checkbox"/> Cleanrooms | <input type="checkbox"/> Metal Fabrication | <input type="checkbox"/> Plastics | <input checked="" type="checkbox"/> General Cleaning (floors, etc.) |
| <input type="checkbox"/> Basic Electronics | <input type="checkbox"/> Optics | <input type="checkbox"/> Precision Instruments | <input checked="" type="checkbox"/> Maint./Repair (engines, etc.) |
| <input type="checkbox"/> Medical | <input checked="" type="checkbox"/> Painting | <input type="checkbox"/> Printing | <input type="checkbox"/> Other: _____ |

4. Contaminant Removal (Check all that apply & specify, if possible)

- | | | | |
|---|---|--|---|
| <input checked="" type="checkbox"/> Adhesives | <input checked="" type="checkbox"/> Coatings | <input type="checkbox"/> Greases | Example <input checked="" type="checkbox"/> Coatings <u>Conformal</u> |
| <input checked="" type="checkbox"/> Buffing/polishing | <input checked="" type="checkbox"/> Cutting/tapping | <input checked="" type="checkbox"/> Inks | <input checked="" type="checkbox"/> Mold releases/ |
| compounds | fluids | <input checked="" type="checkbox"/> Lubricating/ | <input type="checkbox"/> Rust/Scale |
| <input type="checkbox"/> Carbon deposits | <input checked="" type="checkbox"/> Fluxes | lapping oils | <input checked="" type="checkbox"/> Silicones |
| | | | <input checked="" type="checkbox"/> Paints |
| | | | <input checked="" type="checkbox"/> Resins/Rosins |
| | | | <input type="checkbox"/> Other: _____ |

5. Substrate Compatibility (Check all that apply)

- | | | | | |
|---|--|--|---|---|
| <input checked="" type="checkbox"/> Aluminum | <input checked="" type="checkbox"/> Carbon steel | <input checked="" type="checkbox"/> Glass/quartz | <input type="checkbox"/> Rubber | <input checked="" type="checkbox"/> Nickel |
| <input checked="" type="checkbox"/> Alloys (Specify): <u>mg</u> | <input checked="" type="checkbox"/> Ceramics | <input type="checkbox"/> Gold | <input checked="" type="checkbox"/> Stainless steel | <input checked="" type="checkbox"/> Tin |
| <input checked="" type="checkbox"/> Brass | <input checked="" type="checkbox"/> Copper | <input checked="" type="checkbox"/> Plastic (Specify): _____ | <input checked="" type="checkbox"/> Steel | <input type="checkbox"/> Other: <u>wood</u> |
| | <input checked="" type="checkbox"/> Galvanized steel | | <input type="checkbox"/> Sterling/silver | |

6. Equipment Compatibility (Check all that apply & specify, if applicable)

- | | | |
|--|--|--|
| <input type="checkbox"/> Cold Solvent | <input type="checkbox"/> Mechanical Agitation | <input checked="" type="checkbox"/> Low Pressure Spray _____ psi-range |
| <input type="checkbox"/> Vapor Degreasing | <input type="checkbox"/> Ultrasonics | <input type="checkbox"/> High Pressure Spray _____ psi-range |
| <input checked="" type="checkbox"/> Manual Wipe | <input type="checkbox"/> Media Blasting | <input type="checkbox"/> Other: _____ |
| <input checked="" type="checkbox"/> Immersion/Soak | <input type="checkbox"/> Supercritical Extract | |

Recommended Concentrations: 50-100 Percent Volume (range)

Recommended Temperatures: Ambient Deg. F (range)

Important Physical and Chemical Properties:

Maximum theoretical VOC content: 0

GWP: _____ Surface Tension: 27 dynes/cm Density: 1.04

ODP: _____ Kb value: _____ Other: Surface

Cost per pound/gallon: Smallest-unit price: _____ Large-volume price: _____ US\$

7. Additional pertinent information not found elsewhere on this form or MSDS:

SAVOGRAN COMPANY
P.O. BOX 130, NORWOOD, MA 02062-0130
(800) 225-9872

NFPA HAZARD CODE
HEALTH-1 FIRE-0 REACTIVITY-0

MATERIAL SAFETY DATA SHEET

TRADE NAME: SAVOGRAN **HD-34 Cleaner/Degreaser**

EFFECTIVE DATE: October, 1997

CHEMICAL NAME: Mixture C.A.S. No.: Not Applicable Class: Cleaning Compound

DOT SHIPPING NAME AND LABELING: Cleaning Compound - Not Regulated

SECTION 2 HAZARDOUS INGREDIENTS

| | C.A.S. No | Wt % | Exposure Guidelines |
|--------------------|-----------|------|---------------------|
| Dimethyl Adipate | 627-93-0 | <25 | None established |
| Dimethyl Glutarate | 1119-40-0 | <5 | None established |

SECTION 3

PHYSICAL DATA

Initial Boiling Point: 212°F
Vapor Pressure: <0.1mmHg@20°C(dimethyl ester)
Vapor Density: Heavier than air
Solubility in water: Dispersible
Melting Point: N/A
VOC: 0 (excluding exempt dimethyl esters)

Specific Gravity: @ 60/60°F: 1.04
Percent Volatile by Volume: 79
Evaporation Rate: Less than ether
Appearance: Clear liquid
pH(1% d-H₂O): 5

SECTION 4

FIRE AND EXPLOSION DATA

FLASH POINT: None

FLAMMABLE LIMITS: None

EXTINGUISHING MEDIA: Water fog, regular foam, carbon dioxide or dry chemical

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon Monoxide

SPECIAL FIREFIGHTING PROCEDURES: Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment. Cool tank/container with water spray.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None

SECTION 5

HEALTH HAZARD DATA

EFFECTS OF EXPOSURE - Routes of Entry - Acute (immediate)

Eyes: This material is an eye irritant. Direct contact with the liquid or exposure to vapors or mists may cause stinging, tearing, redness and blurred vision.

Skin: This material may cause mild skin irritation. Prolonged or repeated contact may cause redness, cracking and blistering of skin and blurred vision.

Inhalation: If mists or vapors are generated at high concentrations, may cause pallor, nausea, anesthetic or narcotic effects, blurred vision and irritation of the upper respiratory passages.

Swallowing: Ingestion of large amounts may cause gastric disturbances.

EFFECTS OF EXPOSURE - Chronic (delayed)

Eyes: When used as intended, no chronic effects expected.

Skin: When used as intended, no chronic effects expected.

Inhalation: When used as intended, no chronic effects expected.

CARCINOGENICITY: NTP? No IARC MONOGRAPHS? No OSHA REGULATED? No

FIRST AID:

Skin contact: Wash thoroughly with soap and water after excessive contact. Thoroughly launder contaminated clothing before reuse.

Eye contact: Flood with plenty of water with eye lids held open for at least 15 minutes and get medical attention promptly.

Inhalation: If illness occurs, remove patient to fresh air. If breathing is difficult, give oxygen. If breathing has stopped, start artificial respiration. Call physician immediately.

Swallowing: Do Not induce vomiting. Call Physician, or transport to Medical Facility at ONCE. Never give anything by mouth to an unconscious person. Immediately give two glasses of water if conscious.

SECTION 6**REACTIVITY DATA**

STABILITY: Stable

HAZARDOUS POLYMERIZATION: Will not occur.

INCOMPATIBILITY (materials to avoid): Strong oxidizing agents (e.g., Nitric acid, permanganates, etc.) strong alkalies (e.g., NaOH, ammonia, etc.), strong acids (e.g., HCl, Sulfuric etc.)

CONDITIONS TO AVOID: See "SECTION 4 - UNUSUAL FIRE AND EXPLOSION HAZARDS."

SECTION 7**SPILL OR LEAK PROCEDURES**

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Review "SECTION 4 - UNUSUAL FIRE AND EXPLOSION HAZARDS."
SMALL SPILLS: Wipe or scrape up any material. Wash area thoroughly with detergent and water; ventilate adequately with good fresh air movement at floor level.

LARGE SPILLS: Wear proper protective equipment. Stop spill at source, dike area of spill to keep from spreading and keep out of ground water and streams. Transfer material to metal containers. Absorb remainder with sand, clay, earth, floor absorbent or other material and shovel into containers. Then wash area thoroughly with water and detergent. Ventilate adequately with good fresh air movement at floor level. DO NOT restart pilot lights or operate electrical devices or other sources of sparks, flames or heat until all vapors (odors) are gone.

DISPOSAL OF WASTE: Dispose of in accordance with local, state, and federal regulations. This product is not considered a hazardous waste under current RCRA regulations.

SECTION 8**SPECIAL PROTECTION INFORMATION**

VENTILATION: Use local exhaust to control vapors.

RESPIRATORY PROTECTION: Approved organic vapor respirator, if vapors or mists are generated.

GLOVES: For repeated or prolonged exposure, neoprene gloves are recommended.

EYE PROTECTION: Chemical goggles or safety glasses with side shield. Eye-wash stations with safety showers should be readily available.

OTHER PROTECTIVE EQUIPMENT: No special protective clothing needed; however, wear long sleeved shirts with long pants to protect skin against splashes and spills.

SECTION 9**SPECIAL PRECAUTIONS**

HANDLING AND STORING: Store in cool place, out of hot sun and below 100°F. All containers are subject to damage in storage and transit. Damaged containers may start leaking immediately or at a later time. DO NOT store in areas with widely fluctuating temperatures and DO NOT store where vapors may come in contact with flames, sparks, or heat.

EMPTYED CONTAINERS may retain product residues (e.g., vapor and liquid or solids); therefore, all precautions given in this sheet must be observed until a container is thoroughly cleaned or destroyed.