
# Betman Cleaner E785

## Alkaline Ultrasonic Cleaner (Concentrate)

**DESCRIPTION:** Esma-Betman Cleaner E785 is a mildly alkaline blended detergent. When used in conjunction with Esma ultrasonic cleaning and rinsing units, Esma-Betman Cleaner will aid in the removal of oils, dirt, grime, particulates, residues, fluxes, chemicals and solvents, etc.

Esma-Betman Cleaner is a non-foaming cleaning agent designed for use in industrial ultrasonic cleaners and washers. This product is suitable for use on stainless steel, not recommended on brass or aluminum alloys. Esma-Betman Cleaner offers convenience and economy as a concentrated liquid cleaner and is suitable for automatic chemical feeding. Esma-Betman Cleaner is free-rinsing and safe to use due to its mild alkalinity. Esma-Betman Cleaner does not contain dyes, perfumes, or preservatives for complete rinsing of instruments and equipment.

**PROPERTIES:**

| | |
|---|---|
| Appearance | Clear/Slight Green |
| pH (100%) | 10.5 – 10.8 |
| Odor | Mild |
| Foaming | Low |
| Rinsing | Complete |
| Lbs./Gal | 10.51 (Gravity: 1.26) |

**DIRECTIONS:**

For use in ultrasonic tanks dilute to 5% solution (6 oz. per gallon)

For use in automatic ultrasonic wash machines dilute 1:128 (1 oz. per gallon)

Temperature: Ambient - **200°F**

**PRECAUTIONS:**

May cause irritation to the eyes and skin upon contact.
**AVOID EYE CONTACT**
Wear goggles or safety glasses, wash thoroughly after handling. Fatal if swallowed. Keep out of reach of children. Refer to MSDS.

ESMA Incorporated
450 Taft Drive
South Holland, IL 60473
800-276-2466

# MATERIAL SAFETY DATA SHEET

## Section 1- Product Identification and Use

Product Identifier—Betman Cleaner
Product Identification Number—E785
Product Use—Cleaning Compound
Manufacturer's Name—Esma, Inc.
450 W. Taft Drive
South Holland, IL 60473
1-800-246-2466
Emergency Telephone Numbers— US/North America: Chemtrec 800-262-8200 24 hrs everyday
International: Chemtrec 703-527-3887

## Section 2 - Composition/Information on Ingredients

| Ingredients | CAS | % |
|---|---|---|
| Sequestrial Agents | | under 60% |
| 32% water | 7732-18-5 | |
| 21% Ethylenediamine Tetraacetic Acid NA Salt | 64-02-8 | |
| 2% Sodium Glycolate | 2836-32-0 | |
| 1% Unknown Material | | |
| 1% Nitrilotriacetic Acid Trisodium Salt | 5064-31-3 | |
| 1% Sodium Hydoxide | 1310-73-2 | |
| Phosphates | 7778-53-2 | under 5% |
| Non Ionic Surfactant | 9016-45-9 | under 3% |
| Mild Wetting Agent | | under 3% |
| Neutral Catalysts | | under 2% |

## Section 3 Physical Data

Physical State—Liquid
Odor and Appearance—Clear/Slight Green
Odor Threshold—N/A
Vapor Pressure—14mmm Hg at 68.00 F
Specific Vapor Density—No Data
Specific Gravity—1.26
Evaporation Rate—Slower than Ether
Boiling Point—217 degrees F
Percent Volatiles 42%
PH- 10.8

## Section 4 - Fire and Explosion Data

Flammability—No
Flash Point—N/A
Explosive Limit (% by Volume)- N/A
Auto Ignition Temp.—No Data
Hazardous Combustion Products (may form)
Amnonia, Carbon Dioxide, Carbon Monoxide, Nitrogen oxides, various Hydrocarbons
Explosion Data—Sensitivity to Impact—N/A
Sensitivity to Static Discharge—N/A

## Section 5 - Reactivity Data

Chemical Stability—Stable
Incompatibility—Alum, copper, reactive metals
Hazardous Decomposition
May form: --Amnonia, Carbon Dioxide, Carbon Monoxide, nitrogen oxides, various hydrocarbons.
Hazardous Polymerization: Product will not undergo hazardous polymerization.

## Section 6 - Toxicological Properties

Route of Entry - Eyes, Skin/Skin Absorption, Breathing, Swallowing
Effects of Acute Overexposure -
Eyes - May cause severe damage and even blindness.
Skin - Skin absorption is possible, exposure may cause irritation and possible ulceration.
Breathing - Fumes can cause irritation and damage to nasal/respiratory passages.
Swallowing - Can result in damage to mucous membranes and deep tissues.
Effects of Chronic Exposure - Chronic irritation of the eyes and chronic inflammation of nose, throat and lungs.
Exposure Limits—No exposure limits established.
Irritancy of Product—Skin, Eyes, Nose, and Throat
Sensitization to Product—N/A
Carcinogenicity—NO
Teratogenicity—N/A
Reproductive Toxicity—NO
Mutagenicity—NO
Synergistic Products—N/A

## Section 7 - Preventive Measures

Personal Protective Equipment—
Gloves—Rubber, Neoprene
Eyes—Chemical Splash Goggles
Clothing—Lab Coat
Engineering Controls—Mechanical Ventilation Sufficient
Leak and Spill Procedure—Absorb liquid on Vermiculite, Floor Absorbent or other absorbent material.
Waste Disposal—Dispose according to federal, provincial/state, and local regulations
Handling Procedures—Persons must wear proper personal protective equipment.
Storage Requirements—Store away from incompatible materials.
Special Shipping Information—
DOT Information—49CFR172.101
-DOT Description—Non -Regulated by D.O.T.

## Section 8 - First Aid Measures

Skin—Immediately flush exposed area with running water for at least 15 minutes; if symptoms develope, get medical help; remove contaminated clothing and launder prior to reuse; discard contaminated shoes.
Eyes—Immediately flush with large amounts of running water for at least 15 minutes, lifting upper and lower lids. Get immediate medical attention; if physician unavailable continue flushing with water; do not use chemical antidote.
Swallowing—Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.
Breathed—Move individual to fresh air; if breathing difficult administer oxygen; if breathing has stopped, give artificial respiration; keep person warm, quiet, and get immediate medical help.
NOTE TO PHYSICIANS—No Data.

## Section 9 - Other Information

The information accumulated herein is believed to be accurate but is not warranted to be whether originating with the company or not. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

## Section 10- Preparation Date of MSDS

Prepared by—Tim Beezhold Op/Mgr
708-331-1855
May 25, 2004