



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

SAFETY DATA SHEET

Section 1- Product Identification and Use

Product Name: Betman Cleaner

Product Identification Number: E785

Product Use: Detergent Solution

Manufacturer's Name: Esma, Inc.

450 W. Taft Drive

South Holland, IL 60473

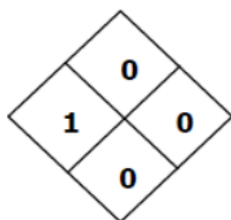
1-800-246-2466

Emergency Telephone Numbers— US/North America: Chemtrec 800-262-8200 24 hrs everyday

International: 800-276-2466

Section 2 - Hazardous Identification

Form : Liquid Color : Clear/Slight Green



NFPA/HMIS Rating:

Health = 1 = slight

Fire, Reactivity, and Special 0 = minimal

Potential Health Effects

Eye Contact: May cause severe damage and even blindness

Skin Contact: No adverse effects expected under typical use conditions. Prolonged exposure may cause dryness. Chemically sensitive individuals may experience mild irritation.

Ingestion: Can result in damage to mucous membranes and deep tissues.

Inhalation: No adverse effects expected under typical use conditions. Adequate ventilation should be present for prolonged usage in small enclosed areas which can cause irritation and damage to nasal/respiratory passages

Section 3 - Hazardous Ingredients

Ingredients	CAS	%
Ethylenediamine Tetraacetic Acid NA Salt	64-02-8	>25%
Sodium Glycolate	2836-32-0	>2%
Nitrilotriacetic Acid Trisodium Salt	5064-31-3	>1%
Sodium Hydroxide	1310-73-2	>1%

Section 4 - First Aid Measures

Eye Contact: Immediately flush contacted area repeatedly with water for at least 15 minutes, holding eyelids open. Contact a physician for treatment.

Skin Contact: Immediately flush contacted area repeatedly with water for at least 15 minutes. If irritation persists, contact a physician for treatment. Clean contaminated clothing before reuse.

Inhalation: Inhalation is not an expected route of exposure. If respiratory irritation or distress occurs, remove victim to fresh air. If irritation persists, seek medical attention.

Ingestion: Never give anything by mouth to an unconscious person. If swallowed, do not induce vomiting. Give 1-2 glasses of water to drink, if conscious and alert.

Notes to physician : No Data

Section 5 - Firefighting Measures

Flammability—No

Flash Point—N/A

Explosive Limit (% by Volume)- N/A

Auto Ignition Temp.—No Data

Hazardous Combustion Products (may form)

Ammonia, Carbon Dioxide, Carbon Monoxide, Nitrogen oxides, various Hydrocarbons

Explosion Data—Sensitivity to Impact—N/A

Sensitivity to Static Discharge—N/A

Section 6 - Accidental Release Measures

Personal Precautions: See section 8 – personal protection.

Environmental Precautions: Do not allow into open waterways and ground water systems.

Method for Clean Up: Dilute with water and rinse into sanitary sewer system or soak up with inert absorbent material.

Section 7 - Handling And Storage

Handling: Keep container tightly closed. Ensure adequate ventilation. Keep out of reach of children

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.

Section 8 - Exposure Controls/Personal Protection

Personal Protective Equipment: Gloves—Rubber, Neoprene

Eyes—Chemical Splash Goggles

Clothing—Lab Coat

Section 9 - Physical And Chemical Properties

Physical State—Liquid

Odor Threshold—N/A

Specific Vapor Density—No Data

Evaporation Rate—Slower than Ether

Percent Volatiles 42%

Odor and Appearance—Clear/Slight Green

Vapor Pressure—14mm Hg at 68.00 F

Specific Gravity—1.26

Boiling Point—217 degrees F

PH- 10.8

Section 10 - Stability And Reactivity

Stability: Stable

Hazardous polymerization: Will not occur

Conditions to avoid: Elevated temperatures; enclosed areas; flame and spark sources

Incompatible materials: Oxidizers, strong acids and alkalis, halogenated solvents

Hazardous decomposition products: Various carbon and sulfur oxides

SECTION 11 - TOXICOLOGY

Acute Toxicity: Oral LD50 (rat) > 5 g/kg body weight

Dermal LD50 (rabbit) > 5 g/kg body weight

Toxicity calculated from ingredients using OECD SERIES ON TESTING AND ASSESSMENT Number 33

Carcinogens: No ingredients are listed by OSHA, IARC, or NTP as known or suspected carcinogens.

Section 12 - Ecological Information

Hazard to wild mammals: Low, based on toxicology profile

Hazard to avian species: Low, based on toxicology profile

Hazard to aquatic organisms: Low, based on toxicology profile

Chemical Fate Information: Readily Biodegradable per OECD 301D, Closed Bottle Test

Section 13 - Disposal Considerations

Waste Disposal Method: Under RCRA, it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets RCRA criteria for hazardous waste. Whatever cannot be salvaged or recycled should be handled as a hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility.

Follow local, state and federal regulations for disposal

Section 14 - Transportation Information

U.S. Department of Transportation (DOT) / Canadian TDG: Not Regulated

IMO / IDMG: Not classified as Dangerous

ICAO/ IATA: Not classified as Dangerous

ADR/RID: Not classified as Dangerous

U.N. Number Not Required

Proper Shipping Name: Detergent Solution

Hazard Class: Non-Hazardous

Marine Pollutant: No

Section 15 - Regulatory Information

SARA 302 Components:

No chemicals in this material are subject to the reporting requirements of SARA Title III, Section 302.

SARA 313 Components

This material does not contain any chemical components with known CAS numbers that exceed the threshold (De Minimis) reporting levels established by SARA Title III, Section 313.

SARA 311/312 Hazards

No SARA Hazards

California Prop. 65 Components

This product does not contain any chemicals known to State of California to cause cancer, birth defects, or any other reproductive harm limit

Section 16 - Other Information

The HMIS Rating : HEALTH: 1 FLAMMABILITY: 0 REACTIVITY: 0 SPECIAL: 0

NFPA hazard degree designation 704: 4 = extreme, 3 = high, 2 = moderate, 1 = slight, 0 = none.

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The information contained on this document is considered accurate as of the date of publication. It is not necessarily all inclusive nor fully adequate in every circumstance. The suggestions should not be confused with, nor followed in violation of applicable laws, regulations, rules or insurance requirements. No warranty, express or implied, of merchantability, fitness, accuracy of data, or the results to be obtained from the use thereof is made. The vendor assumes no responsibility for injury or damages resulting from the inappropriate use of this product.