



CAL551-900: Batt-Mat®

Absorption and Neutralization Pad for Acids And Low Ph Liquid Spills



PRODUCT PROFILE

DESCRIPTION

CAL551-900 **Batt-Mat®** Absorption and Neutralization pad for aqueous Low pH and acid spills.

The Batt-Mat is a 12" by 12" absorption pad that will absorb and neutralize aqueous low pH liquids and acids, such as hydrochloric, nitric or sulfuric acids including lead-acid electrolyte.

For example, the Batt-Mat will absorb and neutralize about 3 quarts of battery electrolyte, containing sulfuric acid (1.225 specific gravity). As the electrolyte is neutralized and absorbed, the contents form a coating and harden around most heavy metal molecules found in the solution that is carried into the Batt-Mat to result in lead encapsulation. The Batt-Mat will also change color, indicating that it has been exposed to a spill. The Batt-Mat is an economical means of automatic and passive aqueous acid spill mitigation.

CAL551-900 **Batt-Mat®** a 12" x 12" mat packaged 10 to a box
CAL551-920 **Batt-2b** a 5" x 20" tube packaged 8 to a box
CAL551-921 **Batt-2b2** a 3" x 24" sock packaged 10 to a box

When used within the confines of a liquid-tight spill containment barrier, provides for lead-acid electrolyte spill control that will meet the requirements of the Uniform Fire Code™ (UFC), Article 64.

TECHNICAL DATA

PHYSICAL PROPERTIES

Specific Gravity	.56
Weight	3.73 kg (5.0 lbs.)
Size	30.48 x 30.48 cm (.093 sq. meters) 12" by 12" (144 sq. inches)
Flash Point	600 ° F
Color	White
Odor	Odorless

STORAGE INFORMATION

Store in a clean, dry area that is free from acid fumes. Shelf life should be indefinite when stored properly.

**CLEAN UP**

Batt-Mat ingredients will become less flexible and change color as absorption, neutralization and lead encapsulation processes progress. Any standing electrolyte can be mitigated by using a spare Batt-Mat to mop up residual spillage.

The Calicorp spill response kit (CAL554-500) contains equipment and supplies to restore the area of the spill to a safe work environment

**DISPOSAL
PROCEDURE**

Batt-Mats that have been used to control lead-acid electrolyte spills may contain lead.

Independent laboratory testing shows that the contained lead of up to 130 mg/L will not leach out once the absorption/encapsulation process is complete.

These tests indicate exposed Batt-Mats meets the federal requirements (<5 mg/L) for the Toxicity Characteristic Leaching Procedure (TCLP). These tests were conducted in a laboratory setting, with tight control of all variables. It is impossible to duplicate every possible situation that may be encountered in actual spills.

Dispose of according to Company procedures or local landfill requirements, which may override federal regulations.

The Calicorp spill Clean Up Kits can be used to clean and verify complete neutralization of the spill area. Battery manufacturers have agreed to accept defective batteries and clean up materials. At their discretion, they can verify the lead content and recycle or dispose of the materials.

**ORDERING
INFORMATION**

For additional information, prices or to place an order, contact Calicorp or your Calicorp representative.

MATERIAL SAFETY DATA**HAZARDOUS
INGREDIENTS**

Sodium Bicarbonate	CAS# 144-55-8,	Irritant
Magnesium Oxide	CAS# 1309-48-4	Irritant
Alkali Metals Silicate	CAS# 1312-76-1	Irritant

PHYSICAL DATA

Specific Gravity	.56
% Volatiles by volume	Nil
Appearance	White bag material, ingredients are Light brown to tan
Melting Point	Not Applicable
Solubility in Water (% by weight)	Approximately 40% of components are water soluble
Odor	Odorless

**FIRE AND
EXPLOSION
DATA**

Flash Point	Containment fabric is flash resistant treated
Flammable Limits	Not Applicable
Extinguishing Media	Water, Water fog
Special Procedures	Use of self-contained breathing apparatus is recommended.

**HEALTH AND
HAZARD
INFORMATION**

Inhalation	Possible irritation to upper respiratory track under conditions exceeding 9.2 mg/liter under continuous dusting exposure.
Skin Contact	Non-irritating
Eye Contact	Irritant
Ingestion	LD ₅₀ (rats): greater than 5000 mg/kg

**EMERGENCY
FIRST AID
PROCEDURES**

Eyes	Immediately flush eyes with water for 15 minutes. Call physician.
Skin	Wash with water.
Ingestion	Not considered toxic, if large quantities (1/2 lb. or more) are ingested drink one to two glasses of water and consult physician.
Inhalation	Remove from exposure, if irritation persists, obtain medical attention. Give oxygen if breathing is difficult.

REACTIVITY DATA

Hazardous Polymerization	Will not occur.
Conditions to avoid	Heating above 300 ° F.
Incompatibilities	None known.




**DISPOSAL OR
SPILL
PROCEDURES**

Waste Disposal Method	Not considered hazardous under RCRA (40CFR 261) Dispose according to state, federal and local regulations.
Steps to be taken if material is spilled	Shovel into closeable container for disposal.



SPECIAL PROTECTION MEASURES

Skin	If handling broken bags by hand, recommend latex gloves.
Inhalation	If dusty environment exists (greater than 10 mg/M) wear dust masks.
Eyes	Always wear safety glasses with side shields, if shoveling or handling broken bags, wear splash-proof goggles.
Gloves	Impervious gloves
Other	Appropriate equipment to prevent probability of skin and eye contact.

Batt-Mat™ Product			
Size	12" x 12" Mat	20" x 5" Tube	24" x 3" Sock
Quantity per Box	10	8	10
Batt-Mat™ FOR Acids - Low pH	Batt-Mat 551-900	Batt-Mat-2b 551-920	Batt-Mat-2b2 551-921
Batt-Mat-C™ FOR Caustics - High pH	Batt-Mat-C 551-950	CALL	CALL



BATT-MAT® TEST RESULTS

The Batt-Mat has been subject to testing by the following independent test Laboratories during 1995.

Expert Chemical Analysis, San Diego, CA

ABSORPTION CAPACITY

Adding 1.261 specific gravity lead-acid electrolyte to the Batt-Mat ingredients in a Pyrex beaker tested the absorption characteristics of the Batt-Mat. ECA determined that the Batt-Mat would absorb approximately 4.0 quarts of electrolyte.

LEAD CONTAINMENT CAPABILITY

The lead-acid electrolyte used for testing the Batt-Mat, tested at 0.57 mg/L of lead, as analyzed by inductively coupled argon plasma (ICAP). The Batt-Mat material was exposed to the electrolyte at the equivalent ratio of 1.5 quarts per Batt-Mat.

The exposed Batt-Mat was subject to the Toxicity Characteristic Leaching Procedure (TCLP), which determines the amount of hazardous materials which will "leach" from a material if put in a landfill. The TCLP test results indicated 0.30 mg/L.

NEUTRALIZATION CAPACITY

The 1300 grams of material in the Batt-Mat successfully neutralized 1.538 quarts of electrolyte before reaching a pH level of 7.0

Huther and Associates, Inc. Carrollton, TX

LEAD-ACID CONTAINMENT

Two samples were taken from the test lead-acid electrolyte. The lead in these samples tested at 124 mg/L and 133 mg/L.

Five Batt-Mats were delivered to Huther and Associates for lead containment testing. Two Batt-Mats were used as the control group. The other three Batt-Mats were each exposed to 1.5 quarts of the test electrolyte. The five Batt-Mat TCLP results were:

Batt-Mat	Type	Result mg/L
1	Control	0.45
2	Control	<0.15
3	Test	0.90
4	Test	0.80
5	Test	0.35

1996 TESTING

Associated Laboratories, Orange, CA

(State Certified)

Two Batt-Mats were exposed to a sample electrolyte, containing 35% sulfuric acid and spiked with lead to 100 ppm. The Batt-Mats were subject to the Total Threshold Limit Concentration (TTL) test with results of wet weight of 65 mg/kg. California State limits are 1000 mg/kg. The Batt-Mats were then subject to the California Assessment Manual



Waste Extraction Test for Soluble Threshold Leachate Concentration (CAM-WET STLC) with results of 4.1 mg/L. State limits are 5 mg/L.

The TCLP, TTLC and STLC are tests used by the federal and California State governments to control the disposal of hazardous materials in landfills. California requirements are stricter than federal. Local jurisdictions may have more stringent requirements and take precedent over federal and state. Always check with your local authorities for guidelines before disposing of questionable materials.

2000 TESTING

Associated Laboratories, Orange, CA

(State Certified)

Official Test Results are on file at Calicorp.

For more information contact:

Calicorp, Inc.
1-888-BATT-MAT
629 Tandy Ct
Chico, Ca
95973

e-mail: sales@calicorp.com
www.calicorp.com

This product is not regulated by the DOT and is not considered a hazardous waste under the RCRA.

MSDS information provided by the manufacturer.
Please call Calicorp for additional information regarding this product or its application

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