MATERIAL SAFETY DATA SHEET

FOR INDUSTRIAL USE ONLY

1. Chemical Product and Company Identification

DESCRIPTION: **PHENCAT CATALYST 382**
PRODUCT CODE: 332339
PRODUCT TYPE: Mixed acid catalyst
APPLICATION: Phenolic composites

Manufacturer/Supplier Information

MSDS Prepared by:
Borden Chemical UK Ltd.
North Baddesley
Southampton SO52 9ZB

Distributed By:
Mektech Composites Inc.
40 Strawberry Hill Rd
Hillsdale, NJ 07642

Emergency Phone Number
Poison Control Center
1-800-228-5635 ext 261

For additional health, safety or regulatory information call 44-2380732131.

2. Composition, Information on Ingredients

The ingredients listed below have been associated with one or more immediate and/or delayed(*) health hazards. Risk of damage and effects depends upon duration and level of exposure. BEFORE USING, HANDLING, OR EXPOSURE TO THESE INGREDIENTS, READ AND UNDERSTAND THE MSDS.

	% by weight
7664-38-2 **Phosphoric Acid**	10-30

3. Hazards Identification

3.1 Emergency Overview

Appearance: Amber liquid
Odor: Odorless

WARNING!
Will burn.
Causes chemical burns to skin.
Causes chemical burns to eyes.
May be harmful if inhaled.
NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK, 2000, NO: 154

HMIS Rating

HEALTH = 3 (serious)
FLAMMABILITY = 1 (slight)
REACTIVITY = 0 (minimal)

3.2 Potential Health Effects

Immediate Hazards

INGESTION: Not expected to be harmful under normal conditions of use.
If accidentally swallowed, burns or irritation to mucous membranes, esophagus or GI tract can result.

INHALATION: May be harmful if inhaled. Liquid or vapor may cause irritation of nose, throat and lungs.

SKIN: Causes chemical burns.

EYES: Causes chemical burns.

Delayed Hazards

None of the components present in this product at concentrations equal to or greater than 0.1% have been listed by NTP, classified by IARC, nor regulated by OSHA as a carcinogen.

4. First Aid Measures

INGESTION: If accidentally swallowed, dilute by drinking large quantities of water. Immediately contact poison control center or hospital emergency room for any other additional treatment directions.

INHALATION: If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Call a physician.

SKIN: Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing. Call a physician. Wash clothing before reuse.

EYES: Immediately flush eyes with plenty of water for at least 15 minutes. Eyelids should be held apart during irrigation to insure water contact with entire surface of eyes and lids. Call a physician.

5. Fire Fighting Measures

Flash point	>212°F
Lower explosion limit	Not applicable
Upper explosion limit	Not applicable
Autoignition temperature	Not available

Will burn.
In case of fire, use water spray, dry chemical, foam or CO2. Use water to keep fire-exposed containers cool.

5. Fire Fighting Measures

Wear full emergency protective equipment including NIOSH approved pressure demand self-contained breathing apparatus.

6. Accidental Release Measures

Large quantities: Enclose with diking material to prevent seepage into natural bodies of water, then consult Borden, Inc. Small quantities: Soak up with absorbent material and remove to a chemical disposal area.

7. Handling and Storage

7.1 Handling

Handle in accordance with good industrial hygiene and safety practices. These practices include avoiding unnecessary exposure and removal of the material from eyes, skin and clothing.
Wash thoroughly after handling.
INHALATION: Avoid breathing vapor. Use with adequate ventilation.
SKIN: Do not get on skin or clothing.
EYES: Do not get in eyes.

7.2 Storage

Store at room temperature.
Keep away from metals.
Do not store with strong alkalies or strong bases.

8. Exposure Controls/Personal Protection

8.1 Exposure Controls

ENGINEERING CONTROLS: The following exposure control techniques may be used to effectively minimize employee exposure: local exhaust ventilation, enclosed system design, process isolation and remote control in combination with appropriate use of personal protective equipment and prudent work practices. These techniques may not necessarily address all issues pertaining to your operations. We, therefore, recommend that you consult with experts of your choice to determine whether or not your programs are adequate.
If airborne contaminants are generated when the material is heated or handled, sufficient ventilation in volume and air flow patterns should be provided to keep air contaminant concentration levels below acceptable criteria.

8.2 Personal Protection

Wear synthetic apron and boots if contact is likely. Where air contaminants can exceed acceptable criteria, use NIOSH/MSHA approved respiratory protection equipment. Respirators should be selected based on the form and concentration of contaminants in air in accordance with OSHA laws and regulations or other applicable standards or guidelines, including ANSI standards regarding respiratory protection. Use goggles and face shield if contact is likely. Wear impervious gloves as required to prevent skin contact.

8.3 Exposure Guidelines

Phosphoric Acid 7664-38-2
ACGIH TLV: 1 mg/m3 TWA; 3 mg/m3 STEL
OSHA PEL: 1 mg/m³ TWA
REMANDED PEL: 1 mg/m³ TWA; 3 mg/m³ STEL
OSHA 1989 PEL remanded, but in effect in some states

9. Physical and Chemical Properties

Appearance	Amber liquid
Odor	Odorless
Odor threshold	Not available
Specific gravity	1.41
pH	About 2
Viscosity, Brookfield	Not available
Freezing point	<32°F
Solubility in water	Completely miscible
Octanol/water partition coefficient	Not available
Vapor pressure @ 25 C	Not available
Vapor density (air=1)	Not available
Evaporation rate (butyl acetate=1)	Not available
Boiling point, 760 mm Hg	>212°F

10. Stability and Reactivity

Normally stable as defined in NFPA 704-12(4-3.1).

Conditions to Avoid:

Heat or sources of ignition.

Incompatibilities:

Alkaline materials.

Decomposition products may include:

Oxides of carbon and phosphorous compounds.

Hazardous polymerization:

Will not occur.

11. Toxicological Information

See Section 3 Hazards Identification information.
Phosphoric Acid 7664-38-2
LC50: Not available
LD50: orl-rat=1530 mg/kg; skn-rbt=2740 mg/kg (Sax)

12. Ecological Information

Not determined.

13. Disposal Considerations

Recover free liquid. Absorb residue and dispose of according to local, state/provincial, and federal requirements.

14. Transport Information

14.1 U.S. Department of Transportation (DOT)

The data provided in this section is for information only and may not be specific to your package size. You will need to apply the appropriate regulations to properly classify your shipment for transportation.

Phosphoric Acid, Corrosive Material, 8, UN1760, III

14.2 Canadian Transportation of Dangerous Goods (TDG)

Not determined.

15. Regulatory Information (Selected Regulations)

15.1 U.S. Federal Regulations

OSHA Hazard Communication Standard 29CFR1910.1200

This material is a "health hazard" and/or a "physical hazard" as determined when reviewed according to the requirements of the Occupational Safety and Health Administration 29 CFR Part 1910.1200 "Hazard Communication" Standard.

SARA Title III: Section 311/312

Immediate health hazard

SARA Title III Section 313 and 40 CFR Part 372

This product contains the following toxic chemical(s) subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986, and Subpart C-Supplier Notification Requirement of 40 CFR Part 372.

None required per SARA TITLE III SECTION 313.

TSCA Section 8(b) Inventory

All reportable chemical substances are listed on the TSCA Inventory. We rely on certifications of compliance from our suppliers for chemical substances not manufactured by Borden.

15.2 Canadian Regulations

Workplace Hazardous Materials Information System (WHMIS)

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulation (CPR) and the MSDS contains all the information required by the CPR.

CLASS D, DIV 2B
CLASS E

Canadian Environmental Protection Act (CEPA)

All reportable chemical substances are listed on the Domestic Substances List (DSL) or otherwise comply with CEPA new substance notification requirements.

National Pollutant Release Inventory (NPRI)

This product contains the following chemical(s) subject to the reporting requirements of the Canadian Environmental Protection Act (CEPA) subsection 16(1), National Pollutant Release Inventory.

Phosphoric acid	7664-38-2	27.00%

15.3 State Regulations

New Jersey Worker & Community RTK Act (NJSA 34:5A-1 et seq.)

The listing of a chemical does not necessarily indicate it is hazardous.

Phosphoric Acid	7664-38-2
Water	7732-18-5

16. Other Information

User's Responsibility

The OSHA Hazard Communication Standard 29CFR 1910.1200 and the Workplace Hazardous Materials Information System (WHMIS) require that the information contained on these sheets be made available to your workers. Educate and train your workers regarding OSHA and WHMIS precautions. Instruct your workers to handle this product properly. Consult with appropriate experts to guard against hazards associated with use of this product and its ingredients.

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