

MODIFICATION

State of Maine**Master Agreement****Effective Date:** 02/26/19**Expiration Date:** 03/31/20**Master Agreement Description:** Concrete Patch, Companion Products and Accessories**Buyer Information**

William Allen

207-624-7871 ext. NULL WJE.Allen@maine.gov

Issuer Information

SHARON KRECHKIN

207-624-3038 ext. sharon.krechkin@maine.gov

Requestor Information

Sharon Krechkin

207-624-3038 ext. sharon.krechkin@maine.gov

Authorized Departments

17A TRANSPORTATION

Vendor Information**Vendor Line #: 1****Vendor ID**

VS0000020197

Vendor Name

Phoscrete Corporation

Alias/DBA**Vendor Address Information**

265 S Federal Hwy, Ste 320

Deerfield Beach, FL 33441

US

Vendor Contact Information

Erica Gerhart

561-420-0595 ext.

erica.gerhart@phoscrete.com

Commodity Information

Vendor Line #: 1

Vendor Name: Phoscrete Corporation

Commodity Line #: 1

Commodity Code: 96712

Commodity Description: Concrete Patch, Companion Products and Accessories

Commodity Specifications:

Commodity Extended Description: Concrete Patch

Quantity

0.00000

UOM

Unit Price

\$0.00

Delivery Days

0

Free on Board

Contract Amount

\$0.00

Service Start Date

Service End Date

Catalog Name

Phoscrete

Discount

0.0000 %

Discount Start Date

02/26/19

Discount End Date

03/31/20

TERMS & CONDITIONS
MA 190226-113

COMMODITY ITEM: Concrete Patch, Companion Products and Accessories. The items covered by this Master Agreement (MA) are items the Phoscrete Corporation submitted in a bid response to RFQ 17A 190206-240.

CONTRACT PERIOD: Through March 31, 2020. The State of Maine with vendor approval can opt to issue up to two (2) one (1) year extensions.

VENDOR CONTACT PERSON: The contact person will help consumers place orders, inquire about orders that have not been delivered, all shipping issues, quality issues, and any issues pertaining to this Master Agreement. All orders not submitted through a DO will be sent through the contractor's contact person. The contact person will be: **Erica Gerhart** Phone: **561-420-0595**
Email: erica.gerhart@phoscrete.com

EXTENSION OF CONTRACT: The Director of Procurement Services may, with the consent of the contractor extend the Contract period beyond the indicated expiration date.

CANCELLATION OF CONTRACT: The Division of Procurement Services reserves the right to cancel a contract with a thirty-day written notice OR cancel immediately if the contractor does not conform to terms and conditions and specifications of contract.

PRICES: All deliveries are expected with shipping terms of “Free on Board (FOB) – Destination.” The State intends for this to mean that all goods shall be priced in the bid response to include shipping charges, if any, to the State's desired location. The “FOB – Destination” shipping term is also intended to mean that the State shall not bear any responsibility for the goods in question until the State takes possession of them at the destination point of delivery. Prices are to remain firm for the duration of the contract.

QUANTITIES: It is understood and agreed that the contract will cover the **actual quantities** required by State Agency over the length of the contract.

ORDERING PROCEDURE: Delivery orders (DO) will be created in AdvantageME for all orders over \$5000.00. If a DO is used, the DO will be e-mailed to the email address set up in AdvantageME by the Vendor as a .pdf file. Orders less than \$5000.00 can be ordered using a P-Card.

INVOICES and PAYMENT: The Contractor shall submit an itemized bill to the Department for materials following delivery for approval and payment. Invoices shall minimally include the following:
Contractor name, address & Contract Number 18P 180713-006, Invoice Date & Number

DELIVERY LOCATIONS: DOT requires the items covered by the MA to be delivered to Scarborough, West Gardiner, Dixfield, Bangor, Carmel, Pembroke, Houlton and Presque Isle. Other delivery points may be requested during the term of the Master Agreement.

QUARTERLY REPORT: The Division of Procurement Services **requires a quarterly report of sales** be faxed to 207-287-6578 within 30 days of the end of each calendar quarter. It will be the responsibility of the vendor to produce a quarterly report. The report must include the dollar value of goods purchased, broken down by Department as well as the total dollar value of purchases made by all Departments.

PROCUREMENT CARD: State policy requires vendors to accept the State of Maine Procurement Card (P-Card) as a form of payment, with very rare exceptions. Your company is required to accept these cards. The pricing offered to the State of Maine shall be the final cost to the State of Maine regardless of payment method. No surcharge or other compensation will be allowed. The State of Maine reserves the right to reject your bid if you are unwilling to accept this condition.

STATE OF MAINE

GENERAL TERMS AND CONDITIONS FOR GOODS AND/OR SERVICES UNDER BUYER PURCHASE ORDERS (BPOs) AND MASTER AGREEMENTS (MAs)

1. **DEFINITIONS:** The following definitions are applicable to these standard terms and conditions:
 - a. The term “Buyer” or “State” shall refer to the Government of the State of Maine or a person representing the Government of the State of Maine.
 - b. The term “Department” or “DAFS” shall refer to the State of Maine Department of Administrative and Financial Services.
 - c. The term “Bureau” or “BGS” shall refer to the State of Maine Bureau of General Services.
 - d. The term “Division” shall refer to the State of Maine Division of Purchases.
 - e. The term “Contractor”, “Vendor”, or “Provider” shall refer to the organization that is providing goods and/or services through the contract to which these standard terms and conditions have been attached and incorporated.
 - f. The term “Contract” or “Agreement” shall refer to the contract document to which these standard terms and conditions apply, taking the format of a Buyer Purchase Order (BPO) or Master Agreement (MA) or other contractual document that is mutually agreed upon between the State and the Contractor.

2. **WARRANTY:** The Contractor warrants the following:
 - a. That all goods and services to be supplied by it under this Contract are fit and sufficient for the purpose intended, and
 - b. That all goods and services covered by this Contract will conform to the specifications, drawing samples, symbols or other description specified by the Division, and
 - c. That such articles are merchantable, good quality, and free from defects whether patent or latent in material and workmanship, and
 - d. That all workmanship, materials, and articles to be provided are of the best grade and quality, and
 - e. That it has good and clear title to all articles to be supplied by it and the same are free and clear from all liens, encumbrances and security interest.

Neither the final certificate of payment nor any provision herein, nor partial nor entire use of the articles provided shall constitute an acceptance of work not done in accordance with this agreement or relieve the Contractor liability in respect of any warranties or responsibility for faulty material or workmanship. The Contractor shall remedy any defects in the work and pay any damage to other work resulting therefrom, which shall appear within one year from the date of final acceptance of the work provided hereunder. The Division of Purchases shall give written notice of observed defects with reasonable promptness.

3. **TAXES:** Contractor agrees that, unless otherwise indicated in the order, the prices herein do not include federal, state, or local sales or use tax from which an exemption is available for purposes of this order. Contractor agrees to accept and use tax exemption certificates when supplied by the Division as applicable. In case it shall ever be determined that any tax included in the prices herein was not required to be paid by Contractor, Contractor agrees to notify the Division and to make prompt application for the refund thereof, to take all proper steps to procure the same and when received to pay the same to the Division.

4. **PACKING AND SHIPMENT:** Deliveries shall be made as specified without charge for boxing, carting, or storage, unless otherwise specified. Articles shall be suitably packed to secure lowest

transportation cost and to conform to the requirements of common carriers and any applicable specifications. Order numbers and symbols must be plainly marked on all invoices, packages, bills of lading, and shipping orders. Bill of lading should accompany each invoice. Count or weight shall be final and conclusive on shipments not accompanied by packing lists.

5. DELIVERY: Delivery should be strictly in accordance with delivery schedule. If Contractor's deliveries fail to meet such schedule, the Division, without limiting its other remedies, may direct expedited routing and the difference between the expedited routing and the order routing costs shall be paid by the Contractor. Articles fabricated beyond the Division's releases are at Contractor's risk. Contractor shall not make material commitments or production arrangements in excess of the amount or in advance of the time necessary to meet delivery schedule, and, unless otherwise specified herein, no deliveries shall be made in advance of the Division's delivery schedule. Neither party shall be liable for excess costs of deliveries or defaults due to the causes beyond its control and without its fault or negligence, provided, however, that when the Contractor has reason to believe that the deliveries will not be made as scheduled, written notice setting forth the cause of the anticipated delay will be given immediately to the Division. If the Contractor's delay or default is caused by the delay or default of a subcontractor, such delay or default shall be excusable only if it arose out of causes beyond the control of both Contractor and subcontractor and without fault of negligence or either of them and the articles or services to be furnished were not obtainable from other sources in sufficient time to permit Contractor to meet the required delivery schedule.

6. FORCE MAJEURE: The State may, at its discretion, excuse the performance of an obligation by a party under this Agreement in the event that performance of that obligation by that party is prevented by an act of God, act of war, riot, fire, explosion, flood or other catastrophe, sabotage, severe shortage of fuel, power or raw materials, change in law, court order, national defense requirement, or strike or labor dispute, provided that any such event and the delay caused thereby is beyond the control of, and could not reasonably be avoided by, that party. The State may, at its discretion, extend the time period for performance of the obligation excused under this section by the period of the excused delay together with a reasonable period to reinstate compliance with the terms of this Agreement.

7. INSPECTION: All articles and work will be subject to final inspection and approval after delivery, notwithstanding prior payment, it being expressly agreed that payment will not constitute final acceptance. The Division of Purchases, at its option, may either reject any article or work not in conformity with the requirements and terms of this order, or re-work the same at Contractor's expense. The Division may reject the entire shipment where it consists of a quantity of similar articles and sample inspection discloses that ten (10%) percent of the articles inspected are defective, unless Contractor agrees to reimburse the Division for the cost of a complete inspection of the articles included in such shipment. Rejected material may be returned at Contractor's risk and expense at the full invoice price plus applicable incoming transportation charges, if any. No replacement of defective articles of work shall be made unless specified by the Division.

8. INVOICE: The original and duplicate invoices covering each and every shipment made against this order showing Contract number, Vendor number, and other essential particulars, must be forwarded promptly to the ordering agency concerned by the Vendor to whom the order is issued. Delays in receiving invoice and also errors and omissions on statements will be considered just cause for withholding settlement without losing discount privileges. All accounts are to be carried in the name of the agency or institution receiving the goods, and not in the name of the Division of Purchases.

9. ALTERATIONS: The Division reserves the right to increase or decrease all or any portion of the work and the articles required by the bidding documents or this agreements, or to eliminate all or any portion of such work or articles or to change delivery date hereon without invalidating this Agreement. All such alterations shall be in writing. If any such alterations are made, the contract amount or amounts shall be adjusted accordingly. In no event shall Contractor fail or refuse to continue the performance of the work in providing of articles under this Agreement because of the inability of the parties to agree on an adjustment or adjustments.

10. TERMINATION: The Division may terminate the whole or any part of this Agreement in any one of the following circumstances:

- a. The Contractor fails to make delivery of articles, or to perform services within the time or times specified herein, or
- b. If Contractor fails to deliver specified materials or services, or
- c. If Contractor fails to perform any of the provisions of this Agreement, or
- d. If Contractor so fails to make progress as to endanger the performance of this Agreement in accordance with its terms, or
- e. If Contractor is adjudged bankrupt, or if it makes a general assignment for the benefit of its creditors or if a receiver is appointed on account of its insolvency, or
- f. Whenever for any reason the State shall determine that such termination is in the best interest of the State to do so.

In the event that the Division terminates this Agreement in whole or in part, pursuant to this paragraph with the exception of 8(f), the Division may procure (articles and services similar to those so terminated) upon such terms and in such manner as the Division deems appropriate, and Contractor shall be liable to the Division for any excess cost of such similar articles or services.

11. NON-APPROPRIATION: Notwithstanding any other provision of this Agreement, if the State does not receive sufficient funds to fund this Agreement and other obligations of the State, if funds are de-appropriated, or if the State does not receive legal authority to expend funds from the Maine State Legislature or Maine courts, then the State is not obligated to make payment under this Agreement.

12. COMPLIANCE WITH APPLICABLE LAWS: Contractor agrees that, in the performance hereof, it will comply with applicable laws, including, but not limited to statutes, rules, regulations or orders of the United States Government or of any state or political subdivision(s) thereof, and the same shall be deemed incorporated herein by reference. Awarding agency requirements and regulations pertaining to copyrights and rights in data. Access by the grantee, the subgrantee, the Federal grantor agency, the Comptroller General of the United States, or any of their duly authorized representatives to any books, documents, papers and records of the Contractor which are directly pertinent to that specific contract for the purpose of making audit, examination, excerpts, and transcriptions. Retention of all required records for three years after grantees or subgrantees make final payments and all other pending matters are closed. Compliance with all applicable standards, orders, or requirements issued under section 306 of the Clean Air Act (42 U.S.C. 1857(h), section 508 of the Clean Water Act, (33 U.S.C. 1368), Executive Order 11738, and Environmental Protection Agency regulations (40 CFR part 15). (Contracts, subcontracts, and subgrants of amounts in excess of \$100,000). Mandatory standards and policies relating to energy efficiency which are

contained in the state energy conservation plan issued in compliance with Energy Policy and Conservation Act (Pub. L. 94-163, 89 Stat. 871).

13. INTERPRETATION: This Agreement shall be governed by the laws of the State of Maine as to interpretation and performance.

14. DISPUTES: The Division will decide any and all questions which may arise as to the quality and acceptability of articles provided and installation of such articles, and as to the manner of performance and rate of progress under this Contract. The Division will decide all questions, which may arise as to the interpretation of the terms of this Agreement and the fulfillment of this Agreement on the part of the Contractor.

15. ASSIGNMENT: None of the sums due or to become due nor any of the work to be performed under this order shall be assigned nor shall Contractor subcontract for completed or substantially completed articles called for by this order without the Division's prior written consent. No subcontract or transfer of agreement shall in any case release the Contractor of its obligations and liabilities under this Agreement.

16. STATE HELD HARMLESS: The Contractor agrees to indemnify, defend, and save harmless the State, its officers, agents, and employees from any and all claims and losses accruing or resulting to any and all contractors, subcontractors, material men, laborers and other persons, firm or corporation furnishing or supplying work, services, articles, or supplies in connection with the performance of this Agreement, and from any and all claims and losses accruing or resulting to any person, firm or corporation who may be injured or damaged by the Contractor in the performance of this Agreement.

17. SOLICITATION: The Contractor warrants that it has not employed or written any company or person, other than a bona fide employee working solely for the Contractor to solicit or secure this Agreement, and it has not paid, or agreed to pay any company, or person, other than a bona fide employee working solely for the Contractor any fee, commission, percentage, brokerage fee, gifts, or any other consideration, contingent upon, or resulting from the award for making this Agreement. For breach or violation of this warranty, the Division shall have the absolute right to annul this agreement or, in its discretion, to deduct from the Agreement price or consideration, or otherwise recover the full amount of such fee, commission, percentage, brokerage fee, gifts, or contingent fee.

18. WAIVER: The failure of the Division to insist, in any one or more instances, upon the performance of any of the terms, covenants, or conditions of this order or to exercise any right hereunder, shall not be construed as a waiver or relinquishment of the future performance of any such term, covenant, or condition or the future exercise of such right, but the obligation of Contractor with respect to such future performance shall continue in full force and effect.

19. MATERIAL SAFETY: All manufacturers, importers, suppliers, or distributors of hazardous chemicals doing business in this State must provide a copy of the current Material Safety Data Sheet (MSDS) for any hazardous chemical to their direct purchasers of that chemical.

20. COMPETITION: By accepting this Contract, Contractor agrees that no collusion or other restraint of free competitive bidding, either directly or indirectly, has occurred in connection with this award by the Division of Purchases.

21. INTEGRATION: All terms of this Contract are to be interpreted in such a way as to be consistent at all times with this Standard Terms and Conditions document, and this document shall take precedence over any other terms, conditions, or provisions incorporated into the Contract.

MANUFACTURER PART NUMBER	ITEM DESCRIPTION	EXTENDED DESCRIPTION	UNIT OF MEASURE	LIST PRICE	DELIVERY DAYS
PC-HC-MINI-KIT	Phoscrete HC Concrete Patch Kit, Mini Pallet, 16 Kits	Mini Pallet: 16 Kits (Kit includes 55lb bag Dry Mix + 10lb jug Liquid Activator) (large mixing paddle included)	KIT	\$96.50	4
PC-HC-FULL-KIT	Phoscrete HC Concrete Patch Kit, Full Single Pallet	Full Pallet: 48 Kits Single pallet (Kit includes 55lb bag Dry Mix + 10lb jug Liquid Activator)	KIT	\$84.00	4
PC-HC-FULL-KIT 3 to 6	Phoscrete HC Concrete Patch Kit, 3-6 Pallets	Full Pallet: 3 to 6 pallets, 48 Kits Per pallet (Kit includes 55lb bag Dry Mix + 10lb jug Liquid Activator)	KIT	\$75.60	4
PC-HC-FULL-KIT 7 to 11	Phoscrete HC Concrete Patch Kit, 7-11 Pallets	Full Pallet: 7 to 11 pallets, 48 Kits Per pallet (Kit includes 55lb bag Dry Mix + 10lb jug Liquid Activator)	KIT	\$72.24	4
PC-HC-FULL-KIT 12 and up	Phoscrete HC Concrete Patch Kit, 12 or More Pallets	Full Pallet: 12 or more pallets (truckload), 48 Kits Per pallet (Kit includes 55lb bag Dry Mix + 10lb jug Liquid Activator)	KIT	\$68.88	4
PC-SG-PLT-KIT	Phoscrete SG Concrete Patch Kit, Full Single Pallet	Full Pallet: 48 Kits Single pallet (48 bags+1 drum)	PLT	\$4,032.00	4
PC-SG-FULL-KIT 3 to 6	Phoscrete SG Concrete Patch Kit, 3-6 Pallets	Full Pallet: 3 to 6 pallets, 48 Kits per pallet (48 bags+1 drum)	PLT	\$3,628.80	4
PC-SG-FULL-KIT 7 to 11	Phoscrete SG Concrete Patch Kit, 7-11 Pallets	Full Pallet: 7 to 11 pallets, 48 Kits per pallet (48 bags+1 drum)	PLT	\$3,467.52	4
PC-SG-FULL-KIT 12 and up	Phoscrete SG Concrete Patch Kit, 12 or More Pallets	Full Pallet: 12 or more pallets (truckload), 48 Kits per pallet (48 bags+1 drum)	PLT	\$3,306.24	4
PC-HC-MINI-PAIL	Phoscrete HC Concrete Patch Pail, Mini Pallet, 16 Pails	Mini Pallet: 16 Pails (dry+liquid) (small mixing paddle included)	PAIL	\$52.50	4
PC-HC-FULL-PAIL	Phoscrete HC Concrete Patch Pail, Full Single Pallet	Full Pallet: 64 pails (dry+liquid) Single pallet	PAIL	\$40.00	4
PC-HC-FULL-PAIL 3 to 6	Phoscrete HC Concrete Patch Pail, 3-6 Pallets	Full Pallet: 3 to 6 pallets, 64 pails (dry+liquid) per pallet	PAIL	\$36.00	4
PC-HC-FULL-PAIL 7 to 11	Phoscrete HC Concrete Patch Pail, 7-11 Pallets	Full Pallet: 7 to 11 pallets, 64 pails (dry+liquid) per pallet	PAIL	\$34.40	4
PC-HC-FULL-PAIL 12 and up	Phoscrete HC Concrete Patch Pail, 12 or More Pallets	Full Pallet: 12 or more pallets (truckload), 64 pails (dry+liquid) per pallet	PAIL	\$32.80	4
PC-VO-MINI-PAIL	Phoscrete VO Concrete Patch, Mini Pallet, 16 Pails	Mini Pallet: 16 Pails (dry+liquid) (small mixing paddle included)	PAIL	\$52.50	4
PC-VO-FULL-PAIL	Phoscrete VO Concrete Patch, Full Single Pallet	Full Pallet: 64 pails (dry+liquid) Single pallet	PAIL	\$40.00	4
PC-VO-FULL-PAIL 3 to 6	Phoscrete VO Concrete Patch, 3-6 Pallets	Full Pallet: 3 to 6 pallets, 64 pails (dry+liquid) per pallet	PAIL	\$36.00	4
PC-VO-FULL-PAIL 7 to 11	Phoscrete VO Concrete Patch, 7-11 Pallets	Full Pallet: 7 to 11 pallets, 64 pails (dry+liquid) per pallet	PAIL	\$34.40	4
PC-VO-FULL-PAIL 12 and up	Phoscrete VO Concrete Patch, 12 or More Pallets	Full Pallet: 12 or more pallets (truckload), 64 pails (dry+liquid) per pallet	PAIL	\$32.80	4
PC-PR-MINI-PAIL	Phoscrete PR Concrete Patch, Mini Pallet, 16 Pails	Mini Pallet: 16 Pails (dry+liquid) (small mixing paddle included)	PAIL	\$52.50	4
PC-PR-FULL-PAIL	Phoscrete PR Concrete Patch, Full Single Pallet	Full Pallet: 64 pails (dry+liquid) Single pallet	PAIL	\$40.00	4
PC-PR-FULL-PAIL 3 to 6	Phoscrete PR Concrete Patch, 3-6 Pallets	Full Pallet: 3 to 6 pallets, 64 pails (dry+liquid) per pallet	PAIL	\$36.00	4
PC-PR-FULL-PAIL 7 to 11	Phoscrete PR Concrete Patch, 7-11 Pallets	Full Pallet: 7 to 11 pallets, 64 pails (dry+liquid) per pallet	PAIL	\$34.40	4
PC-PR-FULL-PAIL 12 and up	Phoscrete PR Concrete Patch, 12 or More Pallets	Full Pallet: 12 or more pallets (truckload), 64 pails (dry+liquid) per pallet	PAIL	\$32.80	4
PC-FAST-PAIL-S	Phoscrete Fast-Set Admix, Sm Pail w/Single Pallet HC,VO,SC	Small Pail: 16 scoops, with purchase of Single Pallet of HC, VO, or SG	PAIL	\$80.00	4
PC-FAST-PAIL-S 3 to 6	Phoscrete Fast-Set Admix, Sm Pail w/3-6 Pallets HC,VO,SC	Small Pail: 16 scoops, with purchase of 3-6 pallets of HC, VO, or SG	PAIL	\$72.00	4
PC-FAST-PAIL-S 7 to 11	Phoscrete Fast-Set Admix, Sm Pail w/7-11 Pallets HC,VO,SC	Small Pail: 16 scoops, with purchase of 7-11 pallets of HC, VO, or SG	PAIL	\$68.80	4
PC-FAST-PAIL-S 12 and up	Phoscrete Fast-Set Admix, Sm Pail w/12plus Pallets HC,VO,SC	Small Pail: 16 scoops, with purchase 12 or more pallets of HC, VO, or SG (truckload)	PAIL	\$65.60	4
PC-FAST-PAIL-L	Phoscrete Fast-Set Admix, Lg Pail w/Single Pallet HC,VO,SC	Large Pail: 48 scoops, with purchase of Single Pallet of HC, VO, or SG	PAIL	\$240.00	4
PC-FAST-PAIL-L 3 to 6	Phoscrete Fast-Set Admix, Lg Pail w/3-6 Pallets HC,VO,SC	Large Pail: 48 scoops, with purchase of 3-6 pallets of HC, VO, or SG	PAIL	\$216.00	4
PC-FAST-PAIL-L 7 to 11	Phoscrete Fast-Set Admix, Lg Pail w/7-11 Pallets HC,VO,SC	Large Pail: 48 scoops, with purchase of 7-11 pallets of HC, VO, or SG	PAIL	\$206.40	4
PC-FAST-PAIL-L 12 and up	Phoscrete Fast-Set Admix, Lg Pail w/12plus Pallets HC,VO,SC	Large Pail: 48 scoops, with purchase 12 or more pallets of HC, VO, or SG (truckload)	PAIL	\$196.80	4
PC-MIXER-L	Phoscrete Mixing Paddle, Lg w/Single Pallet HC,VO,SC	Urethane Auger-Style Mixing Paddle, with purchase of Single Pallet of HC, VO, or SG	EA	\$95.00	4
PC-MIXER-L 3 to 6	Phoscrete Mixing Paddle, Lg w/3-6 Pallets HC,VO,SC	Urethane Auger-Style Mixing Paddle, with purchase of 3-6 pallets of HC, VO, or SG	EA	\$85.50	4
PC-MIXER-L 7 to 11	Phoscrete Mixing Paddle, Lg w/7-11 Pallets HC,VO,SC	Urethane Auger-Style Mixing Paddle, with purchase of 7-11 pallets of HC, VO, or SG	EA	\$81.70	4
PC-MIXER-L 12 and up	Phoscrete Mixing Paddle, Lg w/12plus Pallets HC,VO,SC	Urethane Auger-Style Mixing Paddle, with purchase of 12 or more pallets of HC, VO, or SG (truckload)	EA	\$77.90	4
VO-MIXER-SA	Phoscrete Mixing Paddle, Sm w/Single Pallet HC,VO,SC	Small Urethane Auger-Style Mixing Paddle, with purchase of Single Pallet of HC, VO, or SG	EA	\$85.00	4
VO-MIXER-SA 3 to 6	Phoscrete Mixing Paddle, Sm w/3-6 Pallets HC,VO,SC	Small Urethane Auger-Style Mixing Paddle, with purchase of 3-6 pallets of HC, VO, or SG	EA	\$76.50	4
VO-MIXER-SA 7 to 11	Phoscrete Mixing Paddle, Sm w/7-11 Pallets HC,VO,SC	Small Urethane Auger-Style Mixing Paddle, with purchase of 7-11 pallets of HC, VO, or SG	EA	\$73.10	4
VO-MIXER-SA 12 and up	Phoscrete Mixing Paddle, Sm w/12plus Pallets HC,VO,SC	Small Urethane Auger-Style Mixing Paddle, with purchase of 12 or more pallets of HC, VO, or SG (truckload)	EA	\$69.70	4
PC-PENCIL-AIR	Phoscrete Pneumatic Pencil Vibrator,w/Single Pallet HC,VO,SC	Pneumatic pencil vibrator, 28mm, with purchase of Single Pallet of HC, VO, or SG	EA	\$408.00	4
PC-PENCIL-AIR 3 to 6	Phoscrete Pneumatic Pencil Vibrator,w/3-6 Pallets HC,VO,SC	Pneumatic pencil vibrator, 28mm, with purchase of 3-6 pallets of HC, VO, or SG	EA	\$367.20	4
PC-PENCIL-AIR 7 to 11	Phoscrete Pneumatic Pencil Vibrator,w/7-11 Pallets HC,VO,SC	Pneumatic pencil vibrator, 28mm, with purchase of 7-11pallets of HC, VO, or SG	EA	\$350.88	4
PC-PENCIL-AIR 12 and up	Phoscrete Pneumatic Pencil Vibrator,w/12plus Pallet HC,VO,SC	Pneumatic pencil vibrator, 28mm, with purchase of 12 or more pallets of HC, VO, or SG	EA	\$334.56	4
PC-COOLER-150	Phoscrete 150 Qt Cooler, w/Single Pallet HC,VO,SC	150 qt cooler, with purchase of Single Pallet of HC, VO, or SG	EA	\$175.00	4
PC-COOLER-150 3 to 6	Phoscrete 150 Qt Cooler, w/3-6 Pallets HC,VO,SC	150 qt cooler, with purchase of 3-6 pallets of HC, VO, or SG	EA	\$157.50	4
PC-COOLER-150 7 to 11	Phoscrete 150 Qt Cooler, w/7-11 Pallets HC,VO,SC	150 qt cooler, with purchase of 7-11 pallets of HC, VO, or SG	EA	\$150.50	4
PC-COOLER-150 12 and up	Phoscrete 150 Qt Cooler, w/12plus Pallets HC,VO,SC	150 qt cooler, with purchase of 12 or more pallets of HC, VO, or SG	EA	\$143.50	4
PC-NEEDLER	Phoscrete Compact Air Needle Scaler		EA	\$60.00	4
PC-NEEDLER 3 to 6	Phoscrete Compact Air Needle Scaler,w/3-6 Pallets HC,VO,SC	Air Needle Scaler, Compact , with purchase of 3-6 pallets of HC, VO, or SG	EA	\$54.00	4
PC-NEEDLER 7 to 11	Phoscrete Compact Air Needle Scaler,w/7-11 Pallets HC,VO,SC	Air Needle Scaler, Compact, with purchase of 7-11 pallets of HC, VO, or SG	EA	\$51.60	4
PC-NEEDLER 12 and up	Phoscrete Compact Air Needle Scaler,w/12plus Pallet HC,VO,SC	Air Needle Scaler, Compact, with purchase of 12 or more pallets of HC, VO, or SG	EA	\$49.20	4
PC-DRILL	Phoscrete Drill, Spade Handle	5/8 inch Spade Handle Drill Mixer	EA	\$288.00	4
PC-DRILL 3 to 6	Phoscrete Drill, Spade Handle, w/3-6 Pallets HC,VO,SC	5/8 inch Spade Handle Drill Mixer, with purchase of 3-6 pallets of HC, VO, or SG	EA	\$259.20	4
PC-DRILL 7 to 11	Phoscrete Drill, Spade Handle, w/7-11 Pallets HC,VO,SC	5/8 inch Spade Handle Drill Mixer, with purchase of 7-11 pallets of HC, VO, or SG	EA	\$247.68	4
PC-DRILL 12 and up	Phoscrete Drill, Spade Handle, w/12plus Pallet HC,VO,SC	5/8 inch Spade Handle Drill Mixer, with purchase of 12 or more pallets of HC, VO, or SG	EA	\$236.16	4



State of Maine
RFQ#17A 190206-240
2019 Detailed Quote

Part Number	Product Name Product Description	Count	Measure	Lbs	Coverage		Retail
					CF	BF	
PC-HC-K	Phoscrete HC Horizontal/Castable	1	kit = 1 bag + 1 jug	65.5	0.47	5.68	96.50
PC-VO-P	Phoscrete VO Vertical/Overhead	1	pail (dry + liquid)	13.4	0.08	1.0	52.50
PC-HC-P	Phoscrete HC	1	pail (dry + liquid)	13.4	0.08	1.0	52.50
PC-PR-P	Phoscrete Primer	1	pail (dry + liquid)	14.4		10 sf	52.50
PC-SG-PLT-K	Phoscrete SG Full Pallet Shotcrete/Gunite	48	kit = 48 bags + 1 drum	3144	22.70	272	4,032.00
PC-HC-MP-K	Phoscrete HC Mini-Pallet	16	kits + large mixer	1052	0.47	5.68	1,639.00
PC-HC-PLT-K	Phoscrete HC Full-Pallet	48	kits	3144	0.47	5.68	4,032.00
PC-HC-MP-P	Phoscrete HC Mini-Pallet	16	pails + small mixer	185	0.47	5.68	825.00
PC-HC-PLT-P	Phoscrete HC Full-Pallet	64	pails	728	0.47	5.68	2,560.00
PC-VO-MP-P	Phoscrete VO Mini-Pallet	16	pails + small mixer	185	0.08	1.0	825.00
PC-VO-PLT-P	Phoscrete VO Full Pallet	64	pails	724	0.08	1.0	2,560.00
PC-PR-MP-P	Phoscrete Primer Mini-Pallet	16	pails + small mixer	185		10 sf	825.00
PC-PR-PLT-P	Phoscrete Primer Full Pallet	64	pails	724		10 sf	2,560.00
PC-FAST-PAIL-S	Phoscrete Fast-Set Admix-S	16	small pail (8lbs)	8			80.00
PC-FAST-PAIL-L	Phoscrete Fast-Set Admix-L	48	large pail (24lbs)	24			240.00
PC-MIXER-LA	Phoscrete Large Auger Mixer Urethane Mixing Paddle	1	each	4			95.00
PC-MIXER-SA	Phoscrete Small Auger Mixer Urethane Mixing Paddle	1	each	3			85.00
PC-STINGER	Phoscrete Stinger Air Pencil Vibrator	1	each	8			408.00
PC-NEEDLER	Phoscrete Needler Air Needle Scaler, Compact	1	each	3			60.00
PC-DRILL	Heavy Duty Drill Mixer 9 Amp, Variable Speed, ½ inch	1	each	27			289.00
PC-COOLER-150	Cooler 150qt Cools 16 Activator Jugs	1	each	23			175.00

FOB Origin [Manufacturing Point = MI 48189 • Distribution Point = FL 33441]
Free Standard Shipping to customers in Continental US on Full Pallets and Mini Pallets



State of Maine
RFQ#17A 190206-240
2019 Detailed Quote

DIRECT SHIP TO CUSTOMER DISCOUNTS AND PRICES (FREE STANDARD SHIPPING)								
Part Number	Retail (LTP)	1-2 PLT	3-6 PLT	Disc. 3-6 PLT	7-11 PLT	Disc. 7-11 PLT	FTL 12+ PLT	Disc. FTL
PC-HC-K (kits)	96.50	84.00	75.60	10%	72.24	14%	68.88	18%
PC-VO-P (pails)	52.50	40.00	36.00	10%	34.40	14%	32.80	18%
PC-HC-P (pails)	52.50	40.00	36.00	10%	34.40	14%	32.80	18%
PC-PR-P (pails)	52.50	40.00	36.00	10%	34.40	14%	32.80	18%
PC-SG-PLT-K	4,032.00	4,032.00	3,628.80	10%	3,467.52	14%	3,306.24	18%
PC-HC-MP-K	1,639.00	1,639.00	1,475.10	10%	1,409.54	14%	1,343.98	18%
PC-HC-PLT-K	4,032.00	4,032.00	3,628.80	10%	3,467.52	14%	3,306.24	18%
PC-HC-MP-P	825.00	825.00	742.50	10%	709.50	14%	676.50	18%
PC-HC-PLT-P	2,560.00	2,560.00	2,304.00	10%	2,201.60	14%	2,099.20	18%
PC-VO-MP-P	825.00	825.00	742.50	10%	709.50	14%	676.50	18%
PC-VO-PLT-P	2,560.00	2,560.00	2,304.00	10%	2,201.60	14%	2,099.20	18%
PC-PR-MP-P	825.00	825.00	742.50	10%	709.50	14%	676.50	18%
PC-PR-PLT-P	2,560.00	2,560.00	2,304.00	10%	2,201.60	14%	2,099.20	18%
PC-FAST-PAIL-S	80.00	80.00	72.00	10%	68.80	14%	65.60	18%
PC-FAST-PAIL-L	240.00	240.00	216.00	10%	206.40	14%	196.80	18%
PC-MIXER-LA	95.00	95.00	85.50	10%	81.70	14%	77.90	18%
PC-MIXER-SA	85.00	85.00	76.50	10%	73.10	14%	69.70	18%
PC-STINGER	408.00	408.00	367.20	10%	350.88	14%	334.56	18%
PC-NEEDLER	60.00	60.00	54.00	10%	51.60	14%	49.20	18%
PC-DRILL	289.00	289.00	260.10	10%	248.54	14%	236.98	18%
PC-COOLER-150	175.00	175.00	157.50	10%	150.50	14%	143.50	18%

Manufacturer-Direct quantity price schedule is for end-user Phoscrete customers.
Discount is calculated on single order delivered in full to a single shipping point.
FOB Origin [Manufacturing Point = MI 48189 • Distribution Point = FL 33441]
Free Standard Shipping to customers in Continental US on Full Pallets and Mini Pallets

Multi-Pallet Discount Pricing applies to full pallet orders only.
(48 kits/pallet HC and 64 pails/pallet VO or HC)
HC and VO pallets can be combined on a single order for maximum discount.
Additional items added to same order are discounted based on total full pallets ordered.

Appendix D

**STATE OF MAINE
DEPARTMENT OF ADMINISTRATIVE AND FINANCIAL SERVICES
DIVISION OF PROCUREMENT SERVICES**

**MUNICIPALITY POLITICAL SUBDIVISION and SCHOOL DISTRICT PARTICIPATION
CERTIFICATION**

**RFQ # 17A 190206-240
Concrete Patch**

The Division of Procurement Services is committed to providing purchasing opportunities for **municipalities, political subdivisions and school districts** in Maine by allowing them access, through our vendors, to our contract pricing. A bidder's willingness to extend contract pricing to these entities will be taken into consideration in making awards.

Will you accept orders from political subdivisions and school districts in Maine at the prices quoted?

Yes

Yes, with conditions as follows:

No

Name of Company:

Phoscrete Corporation

Address:

265 S. Federal Hwy #320 Deerfield Beach, FL 33441

Signature:

[Handwritten Signature]

Date:

2/18/19



State of Maine
RFQ#17A 190206-240
Warranty Information

LIMITED WARRANTY

LIMITED WARRANTY NOTICE Phoscrete Corporation (Phoscrete) warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, when used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond Phoscrete's control. PHOSCRETE MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of Phoscrete. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. PHOSCRETE WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Phoscrete's present knowledge and experience. However, Phoscrete assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third-party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Phoscrete reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/12/2018

Reviewed on 10/12/2018

1 Identification

- **Product identifier**
- **Trade name:** Phoscrete Activator
- **Article number:** PC-ACT
- **Application of the substance / the mixture** Concrete/Mortar admixtures
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:** Phoscrete Corporation
265 S Federal Hwy Suite 320
Deerfield Beach FL USA 33441
Tel +1 (561) 420-0595
Email: info@phoscrete.com
- **Information department:** Product Safety Department
- **Emergency telephone number:** During normal operating hours: +1 (561) 420-0595

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS05 Corrosion

Causes severe skin burns and eye damage.

Causes serious eye damage.



GHS07

Harmful if swallowed.

- **Label elements**

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

- **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger

- **Hazard-determining components of labeling:**

Phosphoric acid, aluminum salt (1:3)

- **Hazard statements**

Harmful if swallowed.

Causes severe skin burns and eye damage.

- **Precautionary statements**

Do not breathe dusts or mists.

Wash thoroughly after handling.

Do not eat, drink or smoke when using this product.

Wear protective gloves/protective clothing/eye protection/face protection.

If swallowed: Call a poison center/doctor if you feel unwell.

If swallowed: Rinse mouth. Do NOT induce vomiting.

If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.

(Contd. on page 2)

Safety Data Sheet

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Trade name: Phoscrete Activator

(Contd. of page 1)

IF INHALED: Remove person to fresh air and keep comfortable for breathing.
 If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
 Immediately call a poison center/doctor.
 Specific treatment (see on this label).
 Wash contaminated clothing before reuse.
 Store locked up.
 Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Classification system:**

· **NFPA ratings (scale 0 - 4)**



· **HMIS-ratings (scale 0 - 4)**



· **Other hazards**

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

· **Chemical characterization: Mixtures**

· **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

13530-50-2	Phosphoric acid, aluminum salt (1:3)	47-54%
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4 First-aid measures

· **Description of first aid measures**

· **General information:**

Immediately remove any clothing soiled by the product.
 Symptoms of poisoning may even occur after several hours; therefore medical observation for at least 48 hours after the accident.

· **After inhalation:** Supply fresh air; consult doctor in case of complaints.

· **After skin contact:** Immediately rinse with water.

· **After eye contact:** Rinse opened eye for several minutes under running water. Then consult a doctor.

· **After swallowing:** Immediately call a doctor.

· **Information for doctor:**

· **Most important symptoms and effects, both acute and delayed** No further relevant information available.

· **Indication of any immediate medical attention and special treatment needed**

No further relevant information available.

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(Contd. on page 3)

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Reviewed on 10/12/2018

Trade name: Phoscrete Activator

(Contd. of page 2)

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:** Use fire fighting measures that suit the environment.
- **Special hazards arising from the substance or mixture**
During heating or in case of fire poisonous gases are produced.
- **Advice for firefighters**
- **Protective equipment:** Mouth respiratory protective device.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures**
Mount respiratory protective device.
Wear protective equipment. Keep unprotected persons away.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Absorb with liquid-binding material (sand, diatomite, acid binders, universal binders, sawdust).
Use neutralizing agent.
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.
- **Protective Action Criteria for Chemicals**

- **PAC-1:**

13530-50-2	Phosphoric acid, aluminum salt (1:3)	3 mg/m ³
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- **PAC-2:**

13530-50-2	Phosphoric acid, aluminum salt (1:3)	33 mg/m ³
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- **PAC-3:**

13530-50-2	Phosphoric acid, aluminum salt (1:3)	200 mg/m ³
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7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Prevent formation of aerosols.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

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(Contd. on page 4)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/12/2018

Reviewed on 10/12/2018

Trade name: Phoscrete Activator

(Contd. of page 3)

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**
- **Components with limit values that require monitoring at the workplace:**
The product does not contain any relevant quantities of materials with critical values that have to be monitored at the workplace.
- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Immediately remove all soiled and contaminated clothing.
Wash hands before breaks and at the end of work.
Avoid contact with the eyes.
Avoid contact with the eyes and skin.
- **Breathing equipment:**
In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.
- **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation.
Due to missing tests no recommendation to the glove material can be given for the product/ the preparation/ the chemical mixture.

Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

- **Material of gloves**
The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.
- **Penetration time of glove material**
The exact break trough time has to be found out by the manufacturer of the protective gloves and has to be observed.
- **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

- **Information on basic physical and chemical properties**
- **General Information**
- **Appearance:**

Form:	Fluid
Color:	According to product specification
Odor:	Characteristic

(Contd. on page 5)

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acc. to OSHA HCS

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Reviewed on 10/12/2018

Trade name: Phoscrete Activator

(Contd. of page 4)

· Odor threshold:	Not determined.
· pH-value at 20 °C (68 °F):	1.5 - 2.5
· Change in condition	
Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	100 °C (212 °F)
· Flash point:	Not applicable.
· Flammability (solid, gaseous):	Not applicable.
· Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure at 20 °C (68 °F):	23 hPa (17.3 mm Hg)
· Density at 20 °C (68 °F):	1.47 g/cm ³ (12.26715 lbs/gal)
· Bulk density:	12 kg/m ³
· Relative density	Not determined.
· Vapor density	Not determined.
· Evaporation rate	Not determined.
· Solubility in / Miscibility with	
Water:	Not miscible or difficult to mix.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not determined.
Kinematic:	Not determined.
· Solvent content:	
Water:	50.0 %
VOC content:	0.00 %
Solids content:	0.5 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

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Reviewed on 10/12/2018

Trade name: Phoscrete Activator

(Contd. of page 5)

11 Toxicological information

- **Information on toxicological effects**

- **Acute toxicity:**

- **Primary irritant effect:**

- **on the skin:** No irritant effect.

- **on the eye:** Strong irritant with the danger of severe eye injury.

- **Sensitization:** No sensitizing effects known.

- **Additional toxicological information:**

The product shows the following dangers according to internally approved calculation methods for preparations:

Harmful

Irritant

- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

None of the ingredients is listed.

- **NTP (National Toxicology Program)**

None of the ingredients is listed.

- **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**

- **Aquatic toxicity:** No further relevant information available.

- **Persistence and degradability:** No further relevant information available.

- **Behavior in environmental systems:**

- **Bioaccumulative potential:** No further relevant information available.

- **Mobility in soil:** No further relevant information available.

- **Additional ecological information:**

- **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water

Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

Must not reach bodies of water or drainage ditch undiluted or unneutralized.

- **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.

- **vPvB:** Not applicable.

- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**

- **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

- **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.

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acc. to OSHA HCS



Printing date 10/12/2018

Reviewed on 10/12/2018

Trade name: Phoscrete Activator

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14 Transport information

· UN-Number	UN3264
· DOT, ADR, IMDG, IATA	
· UN proper shipping name	Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, aluminum salt (1:3))
· DOT	3264 Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, aluminum salt (1:3))
· ADR	3264 Corrosive liquid, acidic, inorganic, n.o.s. (Phosphoric acid, aluminum salt (1:3))
· IMDG, IATA	CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (Phosphoric acid, aluminum salt (1:3))
· Transport hazard class(es)	
· DOT	
	
· Class	8 Corrosive substances
· Label	8
· ADR, IMDG, IATA	
	
· Class	8 Corrosive substances
· Label	8
· Packing group	III
· DOT, ADR, IMDG, IATA	
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Warning: Corrosive substances
· Danger code (Kemler):	80
· EMS Number:	F-A,S-B
· Segregation groups	Acids
· Stowage Category	A
· Stowage Code	SW2 Clear of living quarters.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	
· DOT	
· Quantity limitations	On passenger aircraft/rail: 5 L On cargo aircraft only: 60 L
· ADR	
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml

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Safety Data Sheet

acc. to OSHA HCS

Printing date 10/12/2018

Reviewed on 10/12/2018

Trade name: Phoscrete Activator

(Contd. of page 7)

· IMDG	
· Limited quantities (LQ)	5L
· Excepted quantities (EQ)	Code: E1 Maximum net quantity per inner packaging: 30 ml Maximum net quantity per outer packaging: 1000 ml
· UN "Model Regulation":	UN 3264 CORROSIVE LIQUID, ACIDIC, INORGANIC, N.O.S. (PHOSPHORIC ACID, ALUMINUM SALT (1:3)), 8, III

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

All ingredients are listed.

· **Proposition 65**

· **Chemicals known to cause cancer:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

None of the ingredients is listed.

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

None of the ingredients is listed.

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS05 GHS07

- **Signal word** Danger

· **Hazard-determining components of labeling:**

Phosphoric acid, aluminum salt (1:3)

(Contd. on page 9)

Safety Data Sheet

acc. to OSHA HCS

Printing date 10/12/2018

Reviewed on 10/12/2018

Trade name: Phoscrete Activator

(Contd. of page 8)

· **Hazard statements**

Harmful if swallowed.
Causes severe skin burns and eye damage.

· **Precautionary statements**

Do not breathe dusts or mists.
Wash thoroughly after handling.
Do not eat, drink or smoke when using this product.
Wear protective gloves/protective clothing/eye protection/face protection.
If swallowed: Call a poison center/doctor if you feel unwell.
If swallowed: Rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
IF INHALED: Remove person to fresh air and keep comfortable for breathing.
If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Immediately call a poison center/doctor.
Specific treatment (see on this label).
Wash contaminated clothing before reuse.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

- **Department issuing SDS:** product safety department
- **Contact:** Mr. Brian Mintz +1 561-420-0595 ext 719 info@phoscrete.com
- **Date of preparation / last revision** 10/12/2018 / 1
- **Abbreviations and acronyms:**
 - ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road
 - IMDG: International Maritime Code for Dangerous Goods
 - DOT: US Department of Transportation
 - IATA: International Air Transport Association
 - ACGIH: American Conference of Governmental Industrial Hygienists
 - EINECS: European Inventory of Existing Commercial Chemical Substances
 - ELINCS: European List of Notified Chemical Substances
 - CAS: Chemical Abstracts Service (division of the American Chemical Society)
 - NFPA: National Fire Protection Association (USA)
 - HMIS: Hazardous Materials Identification System (USA)
 - VOC: Volatile Organic Compounds (USA, EU)
 - PBT: Persistent, Bioaccumulative and Toxic
 - vPvB: very Persistent and very Bioaccumulative
 - NIOSH: National Institute for Occupational Safety
 - OSHA: Occupational Safety & Health
 - TLV: Threshold Limit Value
 - PEL: Permissible Exposure Limit
 - REL: Recommended Exposure Limit
 - Acute Tox. 4: Acute toxicity – Category 4
 - Skin Corr. 1C: Skin corrosion/irritation – Category 1C
 - Eye Dam. 1: Serious eye damage/eye irritation – Category 1

US

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/04/2016

Reviewed on 08/04/2016

1 Identification

- **Product identifier**
- **Trade name:** Phoscrete HC
- **Article number:** PC-HC
- **Application of the substance / the mixture** Concrete/Mortar admixtures
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Phoscrete Corporation
265 S. Federal Hwy, Suite 320
Deerfield Beach, Florida 33441
U.S.A.
- **Information department:** product safety department
- **Emergency telephone number:** +1 561-420-0595

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

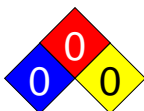
May cause cancer.

-
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
cristobalite
Quartz (SiO₂)
- **Hazard statements**
May cause cancer.
- **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

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Trade name: Phoscrete HC

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1309-48-4	magnesium oxide	2.5-5%
14464-46-1	cristobalite	≤ 2.5%
14808-60-7	Quartz (SiO ₂)	≤ 2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
No dangerous substances are released.

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See Section 7 for information on safe handling.
See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

1309-48-4 magnesium oxide

PEL	Long-term value: 15* mg/m ³ fume; *total particulate
TLV	Long-term value: 10* mg/m ³ *as inhalable fraction

14464-46-1 cristobalite

PEL	½ value from respirable dust formulae for Quartz
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction

14808-60-7 Quartz (SiO₂)

PEL	see Quartz listing
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction

- **Additional information:** The lists that were valid during the creation were used as basis.
- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

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· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Solid
Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure:** Not applicable.

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Trade name: Phoscrete HC

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· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
· Dynamic:	Not applicable.
· Kinematic:	Not applicable.
· Solvent content:	
· Organic solvents:	0.0 %
· Solids content:	80.7 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Carcinogenic categories**

- **IARC (International Agency for Research on Cancer)**

7631-86-9	silicon dioxide	3
14464-46-1	cristobalite	1
14808-60-7	Quartz (SiO ₂)	1

- **NTP (National Toxicology Program)**

14464-46-1	cristobalite	K
14808-60-7	Quartz (SiO ₂)	K

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

· UN-Number	
· DOT, ADR, ADN, IMDG, IATA	None
· UN proper shipping name	
· DOT, ADR, ADN, IMDG, IATA	None
· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	None
· Packing group	
· DOT, ADR, IMDG, IATA	None
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· Transport/Additional information:	Not dangerous according to the above specifications.

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Trade name: Phoscrete HC

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· UN "Model Regulation": None

15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· **Section 355 (extremely hazardous substances):**

None of the ingredients is listed.

· **Section 313 (Specific toxic chemical listings):**

None of the ingredients is listed.

· **TSCA (Toxic Substances Control Act):**

92704-41-1	Kaolin, calcined
1302-93-8	Calcined Bauxitic Kaolin
1309-48-4	magnesium oxide
7631-86-9	silicon dioxide
14464-46-1	crystalobalite
14808-60-7	Quartz (SiO ₂)

· **Proposition 65**

· **Chemicals known to cause cancer:**

14464-46-1	crystalobalite
14808-60-7	Quartz (SiO ₂)

· **Chemicals known to cause reproductive toxicity for females:**

None of the ingredients is listed.

· **Chemicals known to cause reproductive toxicity for males:**

None of the ingredients is listed.

· **Chemicals known to cause developmental toxicity:**

None of the ingredients is listed.

· **Carcinogenicity categories**

· **EPA (Environmental Protection Agency)**

None of the ingredients is listed.

· **TLV (Threshold Limit Value established by ACGIH)**

1309-48-4	magnesium oxide	A4
14464-46-1	crystalobalite	A2
14808-60-7	Quartz (SiO ₂)	A2

· **NIOSH-Ca (National Institute for Occupational Safety and Health)**

14464-46-1	crystalobalite
14808-60-7	Quartz (SiO ₂)

- **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

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· Hazard pictograms



GHS08

· Signal word Danger

· Hazard-determining components of labeling:

cristobalite

Quartz (SiO₂)

· Hazard statements

May cause cancer.

· Precautionary statements

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· National regulations:

· Additional classification according to Decree on Hazardous Materials:

Carcinogenic hazardous material group III (dangerous).

· Information about limitation of use:

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

· Chemical safety assessment: A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· Department issuing SDS: product safety department

· Contact: Mr. Brian Mintz safety@phoscrete.com +1 561-420-0595

· Date of preparation / last revision 08/04/2016 / 4

· Abbreviations and acronyms:

RID: Règlement international concernant le transport des marchandises dangereuses par chemin de fer (Regulations Concerning the International Transport of Dangerous Goods by Rail)

ICAO: International Civil Aviation Organisation

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

Europese overeenkomst betreffende het internationale vervoer van gevaarlijke goederen over de weg

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

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REL: Recommended Exposure Limit
Carc. 1A: Carcinogenicity – Category 1A

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1 Identification

- **Product identifier**
- **Trade name:** Phoscrete SG
- **Article number:** PC-SG
- **Application of the substance / the mixture** Concrete/Mortar admixtures
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Phoscrete Corporation
265 S. Federal Hwy, Suite 320
Deerfield Beach, Florida 33441
U.S.A.
- **Information department:** product safety department
- **Emergency telephone number:** +1 561-420-0595

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

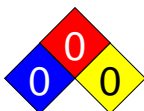
May cause cancer.

-
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
cristobalite
Quartz (SiO₂)
- **Hazard statements**
May cause cancer.
- **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

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Trade name: Phoscrete SG

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1309-48-4	magnesium oxide	2.5-5%
14464-46-1	cristobalite	≤ 2.5%
14808-60-7	Quartz (SiO ₂)	≤ 2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.
- **Reference to other sections**
See Section 7 for information on safe handling.

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See Section 8 for information on personal protection equipment.
See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
Ensure good ventilation/exhaustion at the workplace.
Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

· **Components with limit values that require monitoring at the workplace:**

1309-48-4 magnesium oxide

PEL Long-term value: 15* mg/m³
fume; *total particulate

TLV Long-term value: 10* mg/m³
*as inhalable fraction

14464-46-1 cristobalite

PEL ½ value from respirable dust formulae for Quartz

REL Long-term value: 0.05* mg/m³
*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³
*as respirable fraction

14808-60-7 Quartz (SiO₂)

PEL see Quartz listing

REL Long-term value: 0.05* mg/m³
*respirable dust; See Pocket Guide App. A

TLV Long-term value: 0.025* mg/m³
*as respirable fraction

· **Additional information:** The lists that were valid during the creation were used as basis.

- **Exposure controls**
- **Personal protective equipment:**
- **General protective and hygienic measures:**
Keep away from foodstuffs, beverages and feed.
Wash hands before breaks and at the end of work.
Store protective clothing separately.

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Trade name: Phoscrete SG

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· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Solid
Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	Undetermined.

· **Flash point:** Not applicable.

· **Flammability (solid, gaseous):** Not determined.

· **Ignition temperature:**

Decomposition temperature: Not determined.

· **Auto igniting:** Product is not selfigniting.

· **Danger of explosion:** Product does not present an explosion hazard.

· **Explosion limits:**

Lower:	Not determined.
Upper:	Not determined.

· **Vapor pressure:** Not applicable.

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Trade name: Phoscrete SG

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· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Insoluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
- **Acute toxicity:**
- **Primary irritant effect:**
- **on the skin:** No irritant effect.
- **on the eye:** No irritating effect.
- **Sensitization:** No sensitizing effects known.
- **Additional toxicological information:**
The product shows the following dangers according to internally approved calculation methods for preparations:
- **Carcinogenic categories**

· IARC (International Agency for Research on Cancer)		
7631-86-9	silicon dioxide	3
14464-46-1	crystalobalite	1
14808-60-7	Quartz (SiO ₂)	1
· NTP (National Toxicology Program)		
14464-46-1	crystalobalite	K
14808-60-7	Quartz (SiO ₂)	K

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· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

- **Toxicity**
- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability** No further relevant information available.
- **Behavior in environmental systems:**
- **Bioaccumulative potential** No further relevant information available.
- **Mobility in soil** No further relevant information available.
- **Additional ecological information:**
- **General notes:**
Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects** No further relevant information available.

13 Disposal considerations

- **Waste treatment methods**
- **Recommendation:**
Must not be disposed of together with household garbage. Do not allow product to reach sewage system.
- **Uncleaned packagings:**
- **Recommendation:** Disposal must be made according to official regulations.

14 Transport information

- | | |
|--|-----------------|
| · UN-Number | None |
| · DOT, ADR, ADN, IMDG, IATA | None |
| · UN proper shipping name | None |
| · DOT, ADR, ADN, IMDG, IATA | None |
| · Transport hazard class(es) | None |
| · DOT, ADR, ADN, IMDG, IATA | None |
| · Class | None |
| · Packing group | None |
| · DOT, ADR, IMDG, IATA | None |
| · Environmental hazards: | No |
| · Marine pollutant: | No |
| · Special precautions for user | Not applicable. |
| · Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code | Not applicable. |

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· UN "Model Regulation":	None
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15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture
- Sara

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

1344-28-1	aluminium oxide	
-----------	-----------------	--

· TSCA (Toxic Substances Control Act):
--

92704-41-1	Kaolin, calcined	
------------	------------------	--

1302-93-8	Calcined Bauxitic Kaolin	
-----------	--------------------------	--

1309-48-4	magnesium oxide	
-----------	-----------------	--

7631-86-9	silicon dioxide	
-----------	-----------------	--

14464-46-1	cristobalite	
------------	--------------	--

14808-60-7	Quartz (SiO ₂)	
------------	----------------------------	--

1314-23-4	zirconium dioxide	
-----------	-------------------	--

1344-28-1	aluminium oxide	
-----------	-----------------	--

· Proposition 65

· Chemicals known to cause cancer:

14464-46-1	cristobalite	
------------	--------------	--

14808-60-7	Quartz (SiO ₂)	
------------	----------------------------	--

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:
--

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

· TLV (Threshold Limit Value established by ACGIH)
--

1309-48-4	magnesium oxide	A4
-----------	-----------------	----

14464-46-1	cristobalite	A2
------------	--------------	----

14808-60-7	Quartz (SiO ₂)	A2
------------	----------------------------	----

1314-23-4	zirconium dioxide	A4
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1344-28-1	aluminium oxide	A4
-----------	-----------------	----

· NIOSH-Ca (National Institute for Occupational Safety and Health)
--

14464-46-1	cristobalite	
------------	--------------	--

14808-60-7	Quartz (SiO ₂)	
------------	----------------------------	--

- GHS label elements The product is classified and labeled according to the Globally Harmonized System (GHS).

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Trade name: Phoscrete SG

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· **Hazard pictograms**



GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

cristobalite

Quartz (SiO₂)

· **Hazard statements**

May cause cancer.

· **Precautionary statements**

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Contact:** Mr. Brian Mintz safety@phoscrete.com +1 561-420-0595

· **Date of preparation / last revision** 08/04/2016 / 2

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

Europese overeenkomst betreffende het internationale vervoer van gevaarlijke goederen over de weg

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

IATA: International Air Transport Association

ACGIH: American Conference of Governmental Industrial Hygienists

EINECS: European Inventory of Existing Commercial Chemical Substances

ELINCS: European List of Notified Chemical Substances

CAS: Chemical Abstracts Service (division of the American Chemical Society)

NFPA: National Fire Protection Association (USA)

HMIS: Hazardous Materials Identification System (USA)

PBT: Persistent, Bioaccumulative and Toxic

vPvB: very Persistent and very Bioaccumulative

NIOSH: National Institute for Occupational Safety

OSHA: Occupational Safety & Health

TLV: Threshold Limit Value

PEL: Permissible Exposure Limit

REL: Recommended Exposure Limit

Carc. 1A: Carcinogenicity – Category 1A

Safety Data Sheet

acc. to OSHA HCS

Printing date 08/04/2016

Reviewed on 08/04/2016

1 Identification

- **Product identifier**
- **Trade name:** Phoscrete VO
- **Article number:** PC-VO
- **Application of the substance / the mixture** Concrete/Mortar admixtures
- **Details of the supplier of the safety data sheet**
- **Manufacturer/Supplier:**
Phoscrete Corporation
265 S. Federal Hwy, Suite 320
Deerfield Beach, Florida 33441
U.S.A.
- **Information department:** product safety department
- **Emergency telephone number:** +1 561-420-0595

2 Hazard(s) identification

- **Classification of the substance or mixture**



GHS08 Health hazard

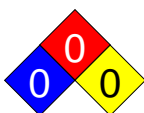
May cause cancer.

-
- **Label elements**
 - **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).
 - **Hazard pictograms**



GHS08

- **Signal word** Danger
- **Hazard-determining components of labeling:**
cristobalite
Quartz (SiO₂)
- **Hazard statements**
May cause cancer.
- **Precautionary statements**
Wear protective gloves/protective clothing/eye protection/face protection.
Obtain special instructions before use.
Do not handle until all safety precautions have been read and understood.
IF exposed or concerned: Get medical advice/attention.
Store locked up.
Dispose of contents/container in accordance with local/regional/national/international regulations.
- **Classification system:**
- **NFPA ratings (scale 0 - 4)**



Health = 0
Fire = 0
Reactivity = 0

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· **HMIS-ratings (scale 0 - 4)**

HEALTH	0	Health = 0
FIRE	0	Fire = 0
REACTIVITY	0	Reactivity = 0

- **Other hazards**
- **Results of PBT and vPvB assessment**
- **PBT:** Not applicable.
- **vPvB:** Not applicable.

3 Composition/information on ingredients

- **Chemical characterization: Mixtures**
- **Description:** Mixture of the substances listed below with nonhazardous additions.

· **Dangerous components:**

1344-28-1	aluminium oxide	19-26%
1309-48-4	magnesium oxide	2.5-5%
14464-46-1	cristobalite	≤ 2.5%
14808-60-7	Quartz (SiO ₂)	≤ 2.5%

4 First-aid measures

- **Description of first aid measures**
- **After inhalation:** Supply fresh air; consult doctor in case of complaints.
- **After skin contact:** Generally the product does not irritate the skin.
- **After eye contact:** Rinse opened eye for several minutes under running water.
- **After swallowing:** If symptoms persist consult doctor.
- **Information for doctor:**
- **Most important symptoms and effects, both acute and delayed** No further relevant information available.
- **Indication of any immediate medical attention and special treatment needed**
No further relevant information available.

5 Fire-fighting measures

- **Extinguishing media**
- **Suitable extinguishing agents:**
CO₂, extinguishing powder or water spray. Fight larger fires with water spray or alcohol resistant foam.
- **Special hazards arising from the substance or mixture** No further relevant information available.
- **Advice for firefighters**
- **Protective equipment:** No special measures required.

6 Accidental release measures

- **Personal precautions, protective equipment and emergency procedures** Not required.
- **Environmental precautions:** Do not allow to enter sewers/ surface or ground water.
- **Methods and material for containment and cleaning up:**
Dispose contaminated material as waste according to item 13.
Ensure adequate ventilation.

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- **Reference to other sections**
- No dangerous substances are released.
- See Section 7 for information on safe handling.
- See Section 8 for information on personal protection equipment.
- See Section 13 for disposal information.

7 Handling and storage

- **Handling:**
- **Precautions for safe handling**
- Ensure good ventilation/exhaustion at the workplace.
- Open and handle receptacle with care.
- **Information about protection against explosions and fires:** Keep respiratory protective device available.
- **Conditions for safe storage, including any incompatibilities**
- **Storage:**
- **Requirements to be met by storerooms and receptacles:** No special requirements.
- **Information about storage in one common storage facility:** Not required.
- **Further information about storage conditions:** Keep receptacle tightly sealed.
- **Specific end use(s)** No further relevant information available.

8 Exposure controls/personal protection

- **Additional information about design of technical systems:** No further data; see item 7.
- **Control parameters**

- **Components with limit values that require monitoring at the workplace:**

1344-28-1 aluminium oxide

PEL	Long-term value: 15*; 5** mg/m ³ *Total dust; ** Respirable fraction
REL	Long-term value: 10* 5** mg/m ³ as Al*Total dust**Respirable/pyro powd./welding f.
TLV	Long-term value: 1* mg/m ³ as Al; *as respirable fraction

1309-48-4 magnesium oxide

PEL	Long-term value: 15* mg/m ³ fume; *total particulate
TLV	Long-term value: 10* mg/m ³ *as inhalable fraction

14464-46-1 cristobalite

PEL	½ value from respirable dust formulae for Quartz
REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction

14808-60-7 Quartz (SiO₂)

PEL	see Quartz listing
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REL	Long-term value: 0.05* mg/m ³ *respirable dust; See Pocket Guide App. A
TLV	Long-term value: 0.025* mg/m ³ *as respirable fraction

· **Additional information:** The lists that were valid during the creation were used as basis.

· **Exposure controls**

· **Personal protective equipment:**

· **General protective and hygienic measures:**

- Keep away from foodstuffs, beverages and feed.
- Wash hands before breaks and at the end of work.
- Store protective clothing separately.

· **Breathing equipment:**

In case of brief exposure or low pollution use respiratory filter device. In case of intensive or longer exposure use respiratory protective device that is independent of circulating air.

· **Protection of hands:**



Protective gloves

The glove material has to be impermeable and resistant to the product/ the substance/ the preparation. Selection of the glove material on consideration of the penetration times, rates of diffusion and the degradation

· **Material of gloves**

The selection of the suitable gloves does not only depend on the material, but also on further marks of quality and varies from manufacturer to manufacturer. As the product is a preparation of several substances, the resistance of the glove material can not be calculated in advance and has therefore to be checked prior to the application.

· **Penetration time of glove material**

The exact break through time has to be found out by the manufacturer of the protective gloves and has to be observed.

· **Eye protection:**



Tightly sealed goggles

9 Physical and chemical properties

· **Information on basic physical and chemical properties**

· **General Information**

· **Appearance:**

Form:	Solid
Color:	According to product specification
· Odor:	Characteristic
· Odor threshold:	Not determined.

· **pH-value:** Not applicable.

· **Change in condition**

Melting point/Melting range:	Undetermined.
Boiling point/Boiling range:	>999 °C (>1830 °F)

· **Flash point:** Not applicable.

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· Flammability (solid, gaseous):	Not determined.
· Ignition temperature:	
Decomposition temperature:	Not determined.
· Auto igniting:	Product is not selfigniting.
· Danger of explosion:	Product does not present an explosion hazard.
· Explosion limits:	
Lower:	Not determined.
Upper:	Not determined.
· Vapor pressure:	Not applicable.
· Density:	Not determined.
· Relative density	Not determined.
· Vapor density	Not applicable.
· Evaporation rate	Not applicable.
· Solubility in / Miscibility with Water:	Soluble.
· Partition coefficient (n-octanol/water):	Not determined.
· Viscosity:	
Dynamic:	Not applicable.
Kinematic:	Not applicable.
· Solvent content:	
Organic solvents:	0.0 %
Solids content:	90.5 %
· Other information	No further relevant information available.

10 Stability and reactivity

- **Reactivity** No further relevant information available.
- **Chemical stability**
- **Thermal decomposition / conditions to be avoided:** No decomposition if used according to specifications.
- **Possibility of hazardous reactions** No dangerous reactions known.
- **Conditions to avoid** No further relevant information available.
- **Incompatible materials:** No further relevant information available.
- **Hazardous decomposition products:** No dangerous decomposition products known.

11 Toxicological information

- **Information on toxicological effects**
 - **Acute toxicity:**
 - **Primary irritant effect:**
 - **on the skin:** No irritant effect.
 - **on the eye:** No irritating effect.
 - **Sensitization:** No sensitizing effects known.
 - **Additional toxicological information:**
- The product shows the following dangers according to internally approved calculation methods for preparations:

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· **Carcinogenic categories**

· **IARC (International Agency for Research on Cancer)**

7631-86-9	silicon dioxide	3
14464-46-1	cristobalite	1
14808-60-7	Quartz (SiO ₂)	1

· **NTP (National Toxicology Program)**

14464-46-1	cristobalite	K
14808-60-7	Quartz (SiO ₂)	K

· **OSHA-Ca (Occupational Safety & Health Administration)**

None of the ingredients is listed.

12 Ecological information

· **Toxicity**

- **Aquatic toxicity:** No further relevant information available.
- **Persistence and degradability:** No further relevant information available.

· **Behavior in environmental systems:**

- **Bioaccumulative potential:** No further relevant information available.
- **Mobility in soil:** No further relevant information available.

· **Additional ecological information:**

· **General notes:**

Water hazard class 1 (Self-assessment): slightly hazardous for water
Do not allow undiluted product or large quantities of it to reach ground water, water course or sewage system.

· **Results of PBT and vPvB assessment**

- **PBT:** Not applicable.
- **vPvB:** Not applicable.
- **Other adverse effects:** No further relevant information available.

13 Disposal considerations

· **Waste treatment methods**

· **Recommendation:**

Must not be disposed of together with household garbage. Do not allow product to reach sewage system.

· **Uncleaned packagings:**

- **Recommendation:** Disposal must be made according to official regulations.
- **Recommended cleansing agent:** Water, if necessary with cleansing agents.

14 Transport information

· **UN-Number**

· **DOT, ADR, ADN, IMDG, IATA** None

· **UN proper shipping name**

· **DOT, ADR, ADN, IMDG, IATA** None

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· Transport hazard class(es)	
· DOT, ADR, ADN, IMDG, IATA	
· Class	None
· Packing group	
· DOT, ADR, IMDG, IATA	None
· Environmental hazards:	
· Marine pollutant:	No
· Special precautions for user	Not applicable.
· Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code	Not applicable.
· UN "Model Regulation":	None

15 Regulatory information

- **Safety, health and environmental regulations/legislation specific for the substance or mixture**
- **Sara**

· Section 355 (extremely hazardous substances):

None of the ingredients is listed.

· Section 313 (Specific toxic chemical listings):

1344-28-1 aluminium oxide

· TSCA (Toxic Substances Control Act):

1302-93-8 Calcined Bauxitic Kaolin

1344-28-1 aluminium oxide

7631-86-9 silicon dioxide

1309-48-4 magnesium oxide

14464-46-1 cristobalite

14808-60-7 Quartz (SiO₂)

1314-23-4 zirconium dioxide

· Proposition 65

· Chemicals known to cause cancer:

14464-46-1 cristobalite

14808-60-7 Quartz (SiO₂)

· Chemicals known to cause reproductive toxicity for females:

None of the ingredients is listed.

· Chemicals known to cause reproductive toxicity for males:

None of the ingredients is listed.

· Chemicals known to cause developmental toxicity:

None of the ingredients is listed.

· Cancerogenity categories

· EPA (Environmental Protection Agency)

None of the ingredients is listed.

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· TLV (Threshold Limit Value established by ACGIH)		
1344-28-1	aluminium oxide	A4
1309-48-4	magnesium oxide	A4
14464-46-1	cristobalite	A2
14808-60-7	Quartz (SiO ₂)	A2
1314-23-4	zirconium dioxide	A4
· NIOSH-Ca (National Institute for Occupational Safety and Health)		
14464-46-1	cristobalite	
14808-60-7	Quartz (SiO ₂)	

· **GHS label elements** The product is classified and labeled according to the Globally Harmonized System (GHS).

· **Hazard pictograms**



GHS08

· **Signal word** Danger

· **Hazard-determining components of labeling:**

cristobalite

Quartz (SiO₂)

· **Hazard statements**

May cause cancer.

· **Precautionary statements**

Wear protective gloves/protective clothing/eye protection/face protection.

Obtain special instructions before use.

Do not handle until all safety precautions have been read and understood.

IF exposed or concerned: Get medical advice/attention.

Store locked up.

Dispose of contents/container in accordance with local/regional/national/international regulations.

· **National regulations:**

· **Additional classification according to Decree on Hazardous Materials:**

Carcinogenic hazardous material group III (dangerous).

· **Information about limitation of use:**

Workers are not allowed to be exposed to the hazardous carcinogenic materials contained in this preparation.

Exceptions can be made by the authorities in certain cases.

· **Chemical safety assessment:** A Chemical Safety Assessment has not been carried out.

16 Other information

This information is based on our present knowledge. However, this shall not constitute a guarantee for any specific product features and shall not establish a legally valid contractual relationship.

· **Department issuing SDS:** product safety department

· **Contact:** Mr. Brian Mintz safety@phoscrete.com +1 561-420-0595

· **Date of preparation / last revision** 08/04/2016 / 2

· **Abbreviations and acronyms:**

ADR: European Agreement concerning the International Carriage of Dangerous Goods by Road

Europese overeenkomst betreffende het internationale vervoer van gevaarlijke goederen over de weg

IMDG: International Maritime Code for Dangerous Goods

DOT: US Department of Transportation

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Reviewed on 08/04/2016

Trade name: Phoscrete VO

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IATA: International Air Transport Association
ACGIH: American Conference of Governmental Industrial Hygienists
EINECS: European Inventory of Existing Commercial Chemical Substances
ELINCS: European List of Notified Chemical Substances
CAS: Chemical Abstracts Service (division of the American Chemical Society)
NFPA: National Fire Protection Association (USA)
HMIS: Hazardous Materials Identification System (USA)
PBT: Persistent, Bioaccumulative and Toxic
vPvB: very Persistent and very Bioaccumulative
NIOSH: National Institute for Occupational Safety
OSHA: Occupational Safety & Health
TLV: Threshold Limit Value
PEL: Permissible Exposure Limit
REL: Recommended Exposure Limit
Carc. 1A: Carcinogenicity – Category 1A

US



PHOSCRETE® HC

Very Rapid Hardening MALP (Magnesium Alumino Liquid Phosphate) Concrete for full and partial depth concrete repair.

DESCRIPTION

Phoscrete HC is a cementitious two-part kit of dry mix composed of Magnesium and Aluminum Aggregates, Reinforcing Fibers, plus a Liquid Phosphate Activator. Phoscrete is very rapid hardening, and gains strength suitable to vehicular traffic in less than one hour at moderate ambient temperatures. Phoscrete forms both a chemical and a mechanical bond to cured concrete and to itself, wet or cured.

PROVEN APPLICATIONS

- Full depth and partial depth concrete repairs
- Interior and exterior concrete installation and repairs
- Horizontal surfaces: poured/castable applications
- Vertical and overhead surfaces: form and pour applications
- Bridge deck and parking deck repairs of reinforced concrete
- Highway concrete spall and rutting repairs
- Airport runway and apron concrete repairs
- Dowel bar retrofit, pre-cast joint grouting, bearing locations
- Freezer floors, industrial floors, and loading dock repairs
- Expansion joint nosing construction and repairs

ADVANTAGES

- Labor saving material: no primers, no curing compounds, no sandblasting of steel bars, self-consolidating, fast setting, easy clean up with water.
- Easy and accurate mixing: two components, powder + aggregates in a bag and liquid in a jug. No water, neat mix.
- Rapid return to service: achieves 4,000 psi compressive strength and 1,500 psi bond strength 1 hour following placement at 73°F.
- Fiber reinforced: high flexural strength, ductility, and durability.
- No cold joints: both mechanical and chemical bond to clean cured concrete. Phoscrete also bonds to itself with no cold joints.
- Shrinkage crack free, per ASTM C1581 Restrained Shrinkage (Ring) Test.
- Stops rust: converts iron oxide to metal phosphate, inhibits further corrosion.
- Does not out-gas after cure: accepts sealants and polymer coatings as soon as one hour following initial set.
- Freeze-thaw resistant, and salt scaling resistant: even when exposed to $MgCl_2$ and $CaCl_2$.
- Resists chloride penetration.
- Chemically stable: no added chlorides, no added sand or aggregates.
- Not a vapor barrier: allows on grade applications.
- Environmentally friendly: no odor, no free silica.
- All temperature use: same formula works from -5°F to +85°F
 - when used with Phoscrete Fast Setting Admixture in cold temperatures.
 - contact Phoscrete technical support to discuss your specific application.

Packaging

1 Kit = 1 bag + 1 Jug

Dry Mix Bags: 55 lb. (25 kg) polyethylene-lined bags

Liquid Activator Jugs:

10 lb. (4,5 kg) HDPE plastic jugs 48 kits per pallet

Fast-Set Admix:

0.5 lb. (0,227 kg) plastic zip bags

Phoscrete HC is also available in 13.2 lb. (6 kg) pails (dry mix + liquid activator packaged inside pail. Pail Yield: 0.083 cf³ (0,0024 m³) or 1.0 bf

Mixing Ratio

Mix Entire Kit: 1 jug + 1 bag

Wet-To-Dry Ratio: 18.5%

Yield

0.47 ft³ (0,0133 m³) neat mix

Do not extend with aggregate.

Storage

Store in unopened, original packaging in clean, dry conditions.

Shelf Life

Dry Mix: 24 months

Liquid Activator: 12 months
(when properly stored)

VOC Content

0 g/L less exempt solvents

Color

Concrete Grey

Fresh Properties						
Test	Specification	Description	Time	Typical Results		
Set Time	ATM C266	Time of Setting by Gillmore Needles	Initial Final	18 min		28 min
Slump	ASTM C143	Slump of Hydraulic-Cement Concrete	0 5 15 min	6 in (15cm)	4 in (10cm)	0 in (0cm)
Yield and Density	ASTM C387	Yield and Density (Unit Weight) of Concrete	ft ³ lb./ft ³ (m ³ kg/m ³)	0.47 (0,0133)		138.2 (2214)
Air Content	California CT-504	Air Content of Freshly Mixed Concrete		11.5%		
Free Shrinkage	ASTM C157	Length Change of Hardened Concrete (Std)	28 Days Wet Dry	0.00%		-0.03%
Restrained Shrinkage	ASTM C1581	Age at Cracking and Induced Tensile Stress Characteristics under Restrained Shrinkage	180 Days Age Stress	Did Not Crack		-60 µstrain
Strength Properties						
Test	Specification	Description	Time	Typical Results		
				psi	MPa	
Compressive Strength	ASTM C109	Compressive Strength of Hydraulic Cement Mortars Using 2-in. Cube Specimens	1 hour	4000	27,6	
			1 day	5500	37,9	
			28 days	7000	48,3	
Flexural Strength	ASTM C78	Flexural Strength of Concrete Using Simple Beam with Third-Point Loading	1 hour	400	3,0	
			1 day	500	3,5	
			7 days	600	4,1	
			28 days	700	4,8	
Bond Strength	ASTM C882	Bond Strength by Slant Shear Phoscrete - Concrete	1 hour	1500	10,3	
			7 days	2000	13,8	
			28 days	2500	17,2	
		Bond Strength by Slant Shear Phoscrete - Phoscrete	1 hour	1750	12,1	
			7 days	2500	17,2	
			28 days	3000	20,7	
Tensile Strength	ASTM C496	Splitting Tensile Strength of Cylindrical Concrete Specimens	1 day	650	4,5	
			28 days	800	5,5	
Modulus of Elasticity	ASTM C469	Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression	28 days	3.1E+06	21E+06	
				0.274		
Durability Properties						
Test	Specification	Description	Test	Typical Results		
Freeze Thaw	ASTM C666-A	Resistance of Concrete to Rapid Freezing and Thawing in a Saturated Condition (300 cycles)	Durability Factor	94%		
Scaling	ASTM C672	Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals (25 cycles) Results = Visual Material Loss lbs./ft ²	NaCl	0	0.00	
			CaCl ₂	0	0.00	
			MgCl ₂	0	0.00	
Chlorides	ASTM C1202	Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration (Current @5 min)	28 days	1331 C	36.2mA	
	ASTM C1543	Penetration of Chloride Ion into Concrete by Ponding	90 days	10-20 mm	0.135%	
				55-65 mm	0.117%	
			180 days	10-20 mm	0.195%	
				55-65 mm	0.145%	
Abrasion	California CT-550	Determining the Surface Abrasion Resistance of Concrete Specimens (mass loss)	24 hours	16 g	1.8%	

SURFACE PREPARATION

- No primer is required.
- Concrete must be sound and fully cured.
- Loose, damaged and contaminated concrete must be removed.
- Clean the surface of the area to be repaired from oil, grease, and other bond-inhibiting materials.
- Surface must be dry, free of standing water. Use heat (torch) and/or a scrub coat to eliminate surface moisture.
- Remove rust from steel bars with a wire brush. Sandblasting is not required.
- Replace reinforcing bars that have lost 25% or more of their original diameter with new bars spliced in place, lapping sufficiently to transfer stress.
- Concrete profile should reach CSP of 7-9 per ICRI Guidelines.
- Repair area should not be less than 1-inch deep.
- Saw-cut the edges of the repair area insuring at least 1-inch depth.
- Saw-cut the edge of the repair parallel and perpendicular to traffic to limit the number of load-bearing stress points.

MIXING

- Mix Phoscrete HC at the placement site.
- Use a heavy-duty five-gallon bucket for mixing single kits of Phoscrete HC. Mix with a paddle (Phoscrete's urethane auger highly recommended), using a dual or variable speed drill (minimum 7-amp drill, ½" chuck with side handle).
- Use a paddle-style mortar mixer for mixing multiple kits at once, when placing large quantities (>2 yd²) of Phoscrete HC.
- Pour Phoscrete HC Liquid Activator in a clean bucket or mortar mixer. Add Phoscrete HC Dry Mix to the Liquid Activator, preferably while mixing.
- Mix Phoscrete HC Dry Mix into the liquid for about 1 minute, until the material is fully wetted out. Do not over-mix.
- When using a mortar mixer, add at least 2 jugs of Phoscrete HC Liquid Activator in the empty mixer immediately after pouring a batch of mixed material. Allow the mixer to spin. This prevents the set of any material that may have remained in the mixer. Do not use water for equipment cleanup until all batches of Phoscrete HC are mixed and placed.
- A batch of Phoscrete HC must be mixed, placed and finished within 5 - 15 minutes depending on ambient temperature.
- The mix ratio is 18% Wet to Dry. On-site measurement for partial unit mixing is NOT recommended. Inaccurate measurements will lead to poor material performance.
- In cold climates, when ambient temperature is below 50°F (10°C), pour Phoscrete Fast-Set Admixture into the liquid. Refer to cold temperature guidelines at phoscrete.com. Then add the Phoscrete HC dry mix bags and mix as usual.
- In hot climates above 75°F, chill Phoscrete Liquid Activator on ice to extend working time. Refer to warm temperature guidelines at phoscrete.com.

APPLICATION

- Empty the mixing container of Phoscrete HC immediately after mixing is completed.
- Install immediately after mixing. Discard the batch if the material begins to setup in the pail or mixer.
- Using a trowel or float, work Phoscrete HC into the bottom and sides of the patch, being careful to fill all voids. Force the material against the edges of the repair.
- Level Phoscrete HC to the existing concrete surface. Screed off excess. Note that Phoscrete may expand slightly so finish the surface to accommodate for expansion. If the material finishes higher than the adjacent surface, to reduce impact on the repair and for rideability, use a diamond grinder to level surface as soon as 15 minutes following initial set.
- Finish Phoscrete HC using clean concrete floats and trowels. Magnesium floats work best. Tap on surface with trowel to bring liquid to the surface for best finish. To prevent Phoscrete from sticking, wipe Phoscrete trowels with a water-dampened cloth. Do not pour water on repair. Stop finishing once the surface of the placed material develops a "skin".
- When using forms, apply vibration for maximum penetration and bond.
- When multiple layers are applied, scarify the surface for best bond. Phoscrete bonds to itself whether or not it is completely set. If installing in lifts, do not apply a final layer thinner than ½ inch.

APPLICATION *(continued from page 3)*

- If rain occurs prior to initial set, cover the surface with plastic sheeting for at least 15 minutes following initial set.
- On sloped surfaces, pour the material at the bottom of the slope and work your way up. Use a hand screed to move the material up the slope. When installing on steep inclines, use forms, or work in smaller increments (one kit at a time), and allow the material to setup prior to the next pour.
- For expansion joint nosings, insure that the repair material is not higher than the approach slab. Use a grinding tool to cut a 45° bevel at the edge of the joint no sooner than 15 minutes after initial set. Standard compression or silicone seals can be applied no sooner than one [1] hour following initial set. Refer to expansion joint guidelines at phoscrete.com.
- No curing compound is required.

CLEANING

- In-between batches, clean tools with water and wipe off excess water prior to contact with Phoscrete.
- When the job is completed, clean tools with water.

LIMITATIONS

- Minimum application thickness: 1-inch
- Maximum application thickness: none
- Do not apply Phoscrete HC as a thin veneer.
- Minimum ambient temperature: -5°F
- Do not use water when mixing and/or placing Phoscrete HC
- Do not extend Phoscrete HC with aggregate.
- Do not add sand and/or any type of cement.
- Do not use water when finishing Phoscrete HC.
- No direct contact with galvanized steel or aluminum.
- Proper application is the responsibility of the user. Field visits by Phoscrete personnel are for the purpose of making technical recommendations, not for supervising or providing quality control on the jobsite.

LIMITED WARRANTY

LIMITED WARRANTY NOTICE Phoscrete Corporation (Phoscrete) warrants this product to be free from manufacturing defects and to meet the technical properties on the current Technical Data Guide, when used as directed within shelf life. Satisfactory results depend not only on quality products but also upon many factors beyond Phoscrete's control. PHOSCRETE MAKES NO OTHER WARRANTY OR GUARANTEE, EXPRESS OR IMPLIED, INCLUDING WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO ITS PRODUCTS. The sole and exclusive remedy of Purchaser for any claim concerning this product, including but not limited to, claims alleging breach of warranty, negligence, strict liability or otherwise, is the replacement of product or refund of the purchase price, at the sole option of Phoscrete. Any claims concerning this product must be received in writing within one (1) year from the date of shipment and any claims not presented within that period are waived by Purchaser. PHOSCRETE WILL NOT BE RESPONSIBLE FOR ANY SPECIAL, INCIDENTAL, CONSEQUENTIAL (INCLUDING LOST PROFITS) OR PUNITIVE DAMAGES OF ANY KIND. Purchaser must determine the suitability of the products for the intended use and assumes all risks and liabilities in connection therewith. This information and all further technical advice are based on Phoscrete's present knowledge and experience. However, Phoscrete assumes no liability for providing such information and advice including the extent to which such information and advice may relate to existing third party intellectual property rights, especially patent rights, nor shall any legal relationship be created by or arise from the provision of such information and advice. Phoscrete reserves the right to make any changes according to technological progress or further developments. The Purchaser of the Product(s) must test the product(s) for suitability for the intended application and purpose before proceeding with a full application of the product(s). Performance of the product described herein should be verified by testing and carried out by qualified experts.

HEALTH, SAFETY, AND ENVIRONMENTAL

Read, understand and follow all Installation Instructions, Safety Data Sheets, and product label information for this product prior to use. The latest SDS can be obtained by visiting phoscrete.com, emailing your request to info@phoscrete.com, or calling 561-420-0595. Use only as directed. 24 Hour Emergency: Chemtrec® 800-424-9300 Contracted by Phoscrete/Stellar Materials, Account #205681.



PHOSCRETE® VO (Vertical/Overhead)

Very Rapid Hardening MALP (Magnesium Alumino Liquid Phosphate) Concrete for trowel-applied concrete repairs.

DESCRIPTION

Phoscrete VO is a cementitious two-part system of a Dry Mix composed of magnesium and alumino aggregates, and reinforcing fibers, plus a Liquid Phosphate Activator.

Phoscrete is very rapid hardening and early strength gain s thus allowing fast completion of repair applications and rapid return to service of concrete structures. It is easy to apply by trowel thus making it ideal for vertical and overhead applications.

Phoscrete VO exceeds ASTM C928 R2; Specification for Very Rapid Hardening Cementitious Repair Materials

PROVEN APPLICATIONS

- Fast set repair for above grade and below grade concrete structures
- Repair of bridge beams, caps, piers and columns
- Repair of marine structures such as seawalls, piles, pile caps, beams, piers, navigation locks, guide walls, dams, powerhouses, and discharge tunnels
- Rapid repair of sidewalks, stairs, sills, and culverts
- Repair of building facades, parking garages and industrial plants
- Repair of new construction concrete's defects, including pre-cast shapes

ADVANTAGES

- Labor and time-saving: no primer for concrete substrate and steel bars, no sandblasting of steel bars, no curing compound
- Easy to apply; fast setting, high-build, non-sag, easy clean-up with water
- Easy to finish using trowels or stucco sponge
- High early and ultimate compressive and bond strength
- Fiber reinforced: high flexural strength, ductility, and durability
- High adhesion to concrete and mortar surfaces. Phoscrete VO forms both a chemical and a mechanical bond to cured concrete and to itself, wet or cured
- No cold joints: both mechanical and chemical bond to clean cured concrete
- Shrinkage crack free
- Stops rust - converts iron oxide to metal phosphate and inhibits corrosion
- Freeze-thaw and salt scaling resistant: even when exposed to $MgCl_2$ and $CaCl_2$
- Durable in marine environments: resists chloride penetration
- Chemically stable: no added chlorides, no added sand or aggregates
- Not a vapor barrier
- Does not out-gas after cure - accepts sealers and coatings as soon as one hour following initial set
- Environmentally friendly: no odor, no free silica
- All temperature use: same formula works from -5°F to +85°F
 - when used with Phoscrete Fast Setting Admixture in cold temperatures
 - contact Phoscrete technical support to discuss your specific application

Packaging

Pail: 13.2 lb. (6 kg)

HDPE pail contains Dry Mix paper bag and HDPE Liquid Activator jar.

Pail Yield: 1 board foot
(144 in³, 0.0024 m³)

Patch Kit Tub: 1.1 lb. (0.5 kg)
HDPE Patch Kit Tub contains zip plastic Dry Mix bag LDPE Liquid Activator jar plus plastic mixing stick.

Patch Kit Tub Yield:
(26 in³, 426 cm³)

Fast-Set Admix:

Pail: 0.25 lb. (113 g) per dose
(two 3-oz. scoops by volume)

Tub: 0.045 lb. (20 g) per dose
(two teaspoons by volume)

Mixing Ratio

Mix Entire Kit: 1 jar + 1 bag
Wet-To-Dry Ratio: 17%

Storage

Store in unopened, original packaging in clean, dry conditions.

Shelf Life

Dry Mix: 24 months

Liquid Activator: 12 months
(when properly stored)

VOC Content

0 g/L less exempt solvents

Color

Concrete Grey

Fresh Properties					
Test	Specification	Description	Time	Typical Results	
Set Time	ATM C191	Time of Setting by Vicat Needles	Initial Final	14 min	16 min
Slump	ASTM C143	Slump of Hydraulic-Cement Concrete	2.5 min	3.5 in. (9cm)	
Flow	ASTM C1437	Flow of Hydraulic Cement		22%	
Yield and Density	ASTM C185	Yield and Density (Unit Weight) of Concrete (Pail)	ft ³ lb./ft ³ (m ³ kg/m ³)	0.083 (0,0024)	157.1 (2517)
Air Content	ASTM C234	Air Content (Pressure Method)		10.5%	
Free Shrinkage	ASTM C157	Length Change of Hardened Concrete (Std)	28 Days Wet Dry	0.011%	-0.054%
Strength Properties					
Test	Specification	Description	Time	Typical Results	
				psi	MPa
Compressive Strength	ASTM C109	Compressive Strength of Hydraulic Cement Mortars Using 2-in. Cube Specimens	1 hour	5000	34,5
			1 day	7500	51,7
			28 days	10000	68, 9
Flexural Strength	ASTM C78	Flexural Strength of Concrete Using Simple Beam with Third-Point Loading	1 day	600	4,1
			7 days	650	4,5
			28 days	650	4,5
Bond Strength	ASTM C882	Bond Strength by Slant Shear Phoscrete - Concrete	1 hour	1000	6,9
			7 days	2000	13,8
			28 days	2000	13,8
Tensile Strength	ASTM C496	Splitting Tensile Strength of Cylindrical Concrete Specimens	1 day	700	4,8
			28 days	800	5,5
Modulus of Elasticity	ASTM C469	Static Modulus of Elasticity and Poisson's Ratio of Concrete in Compression	28 days	3.5E+06	2.4E+04
				0.246	
Durability Properties					
Test	Specification	Description	Test	Typical Results	
Freeze Thaw	ASTM C666-A	Resistance of Concrete to Rapid Freezing and Thawing in a Saturated Condition (300 cycles)	Durability Factor	91%	
Scaling	ASTM C672	Scaling Resistance of Concrete Surfaces Exposed to Deicing Chemicals (25 cycles) Results = Visual Material Loss lbs./ft ²	NaCl	2	0.42
			CaCl ₂	0	0.00
			MgCl ₂	0	0.00
Chlorides	ASTM C1202	Electrical Indication of Concrete's Ability to Resist Chloride Ion Penetration (Current @5 min)	28 days	1913 C	71.7mA
	ASTM C1543	Penetration of Chloride Ion into Concrete by Ponding	90 days	10-20 mm	613
				55-65 mm	558
			180 days	10-20 mm	333
				55-65 mm	540

SURFACE PREPARATION

- Concrete surface must be sound and fully cured.
- Loose, damaged and contaminated concrete must be removed.
- Use a wire brush to remove loose scale (rust) from steel bars. Sandblasting is not required.
- Clean the surface of the area to be repaired from oil, grease, and other bond-inhibiting materials.
- Surface must be dry, free of standing water. Use heat (torch) to eliminate surface moisture.
- In winter, concrete substrate must be frost free and dry before the application.
- Concrete profile should reach minimum CSP of 3 per ICRI Guidelines. Use appropriate technical means. Water-blasting is not recommended.

PRIMER COAT

- No primer is required if the surface is dry.
- In case of SSD concrete surfaces, Phoscrete Primer should be used as a scrub coat for improved adhesion.
- Application of primer to steel bars is not required.

MIXING

- Mix Phoscrete VO at the placement site.
- Pour the Liquid Activator into Phoscrete VO pail or any other clean plastic container. Add the Dry Mix component to the Liquid Activator, preferably while mixing.
- Mix Phoscrete VO Dry Mix into the Liquid Activator for about 1 minute, until the material is fully wetted out and shows a uniform consistency. Do not over-mix.
- A batch of Phoscrete VO must be mixed, placed and finished within 5 - 15 minutes depending on ambient temperature.
- Be sure to mix the entire bag of Dry Mix with the full content of Liquid Activator. The mix ratio is 17% wet to dry. On-site measurement for partial unit mixing is NOT recommended.
- When mixing pails of VO, mix with a paddle, using a minimum 18v portable drill on the low speed setting. For professional use, Phoscrete's small urethane auger is highly recommended.
- When mixing tubs of VO Patch Kits, use the provided stirrer and mix by hand until the material is completely wetted out.
- In cold climates, when ambient temperature is below 50°F (10°C), add scoops of Phoscrete Fast-Set Admixture into the Liquid Activator [Refer to cold temperature guidelines at phoscrete.com]. Then add Phoscrete VO Dry Mix and mix as usual.
- In hot climates above 75°F, chill the jar of Phoscrete VO Liquid Activator on ice to extend working time. Be sure to store the pail of Dry Mix and Liquid Activator in a cold place. Refer to warm temperature guidelines at phoscrete.com.

APPLICATION

- Install immediately after mixing. Discard material that begins to setup in the pail.
- Using a lightly moistened (with water) gloved hand or clean trowel, apply a scrub coat of Phoscrete VO against the prepared substrate, being careful to fill all voids.
- When using Phoscrete Primer, wait at least fifteen [15] minutes prior to application of Phoscrete VO.
- Apply Phoscrete VO in lifts until the patch is completed. On overhead surfaces, the average thickness of a lift should be no more than 2 inches. On vertical surfaces, lift thickness can be more. When multiple lifts are applied, scarify the surface of the previous lift for best bond. Wait approximately one-minute in-between lifts, depending on ambient temperature and total depth of the repair.
- To prevent Phoscrete VO from sticking to the trowel, wipe the trowel with a water-dampened cloth during application.

FINISHING

- Use a margin trowel edge to saw away excess material until flush with surface.
- Smooth finished surface with a clean trowel or a slightly dampened stucco sponge.
- No curing is required. Phoscrete VO sets in approximately 15 minutes.
- If the material finishes higher than the adjacent surface after final set, use a diamond grinder to level the repair surface within required tolerances.
- If rain occurs prior to initial set, cover the surface with plastic sheeting for at least 15 minutes following initial set.
- If the repair includes steel reinforcing bars, sacrificial anodes are not required because Phoscrete VO does not create the so-called halo effect.

CLEANING

- In-between batches, clean tools with water and wipe off excess water prior to contact with Phoscrete.
- When the job is completed, clean tools with water.

LIMITATIONS

- Minimum application thickness: none
- Maximum application thickness: none
- Do not use water when mixing and/or placing Phoscrete VO
- Do not extend Phoscrete VO with aggregate.
- Do not add sand or any type of cement.
- Do not introduce water when finishing Phoscrete VO, other than to clean tools and on finish coat with stucco sponge.
- Do not use any primer other than Phoscrete Primer.
- No direct contact with galvanized steel (zinc) or aluminum
- Proper application is the responsibility of the user. Field visits by Phoscrete personnel are for the purpose of making technical recommendations, not for supervising or providing quality control on the jobsite.

LIMITED WARRANTY

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