

INVITATION TO BID

Bid Invitation Number: #18-2012

Date of Issue: 02/28/2012

Sealed bids will be received in the office of the Division of Central Purchasing, 200 East Main Street, Lexington, Kentucky, until **2:00 PM**, prevailing local time on **03/13/2012**. Bids must be received by the above-mentioned date and time. Mailed bids should be sent to:

Division of Central Purchasing
200 East Main Street, Rm 338
Lexington, KY 40507, (859) 258-3320

The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.

All bids must have the company name and address, bid invitation number, and the commodity/service on the outside of the envelope.

Bids are to include all shipping costs to the point of delivery located at: Various Locations (See Specs)

Bid Security Required: Yes No Performance Bond Required: Yes No
Cashier Check, Certified Check, Bid Bond (Personal checks and company checks will not be acceptable).

QTY	Commodity/Service
PCT	Swimming Pool Chemicals
	See specifications

<p align="center">Check One:</p> <p><input checked="" type="checkbox"/> Bid Specifications Met</p> <p><input type="checkbox"/> Exceptions to Bid Specifications. <i>Exceptions shall be itemized and attached to bid proposal submitted.</i></p>	<p align="center">Proposed Delivery:</p> <p><u>3</u> days after acceptance of bid.</p>
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Procurement Card Usage	
<input checked="" type="checkbox"/> Yes	The Lexington-Fayette Urban County Government will be using Procurement Cards to purchase goods and services and also to make payments. Will you accept Procurement Cards?
<input type="checkbox"/> No	

Submitted by: BRENTAG MID-SOUTH, INC.
Firm
324 E. YUSEN DRIVE
Address
GEORGETOWN, KY 40324
City, State & Zip
David Devine - SALES REPRESENTATIVE
Signature of Authorized Company Representative - Title
David Devine
Representative's Name (Typed or printed)
1-800-876-2874 502-863-2523
Area Code - Phone - Extension Fax #
ddevine@brenntag.com
E-Mail Address

The Affidavit in this bid must be completed before your firm can be considered for award of this contract.

**SWIMMING POOL CHEMICALS
SPECIFICATION**

- All bidders must supply material safety data information on products bid with their bid proposal.
- All pallets shall be stacked so that they may clear 42" wide opening.
- All products in bags need to be labeled properly with product description
- Bags need to be 5-ply with waterproof layers.

1. **Diatomaceous Earth** – packaged in 50 pound net bags. Bags shall be delivered on pallets. The Lexington-Fayette Urban County Government will not pay a deposit or holding charge for the use of the pallets.

565305

Price per bag \$ 18.00 / BAG

2. **Calcium Chloride** – packaged in 50 pound net bags. Bags shall be delivered on pallets. The Lexington-Fayette Urban County Government will not pay a deposit or holding charge for the use of the pallets.

118835

Price per bag \$ 10.95 / BAG

3. **Liquid Chlorine (Sodium Hypochlorite 12%)** – Delivery by vendor to eleven (11) pool sites weekly or more frequently as needed. Storage containers to be provided by the Lexington-Fayette Urban County Government.

The Vendor/Hauler must comply with the Hazardous Materials Regulation of the Department of Transportation contained in Federal Regulation #49CFR.

All drivers must have a valid Commercial Driver's License (CDL)

841174

Price per gallon \$ 1.10 / GALLON

4. **Hydrochloric Acid (Muriatic Acid)** – packaged in one-gallon containers. Containers shall be delivered on pallets. The Lexington-Fayette Urban County Government will not pay a deposit or holding charge for the use of the pallets.

783923

Price per gallon \$ 3.24 / GALLON

5. **Prochlor sticks** – packaged in 50 lb. buckets. Buckets shall be delivered on pallets. The Lexington-Fayette Urban County Government will not pay a deposit or holding charge for the use of the pallets.

568758

Price per bucket \$ 165.00 / EACH

6. **Harborlite AquaPerl (Perlite, amorphous alumina silicate)** – packaged in ¹² lb. bags. Bags shall be delivered on pallets. The Lexington-Fayette Urban County Government will not pay a deposit or holding charge for the use of the pallets.

449419

Price per bag \$ 14.12 / BAG

AFFIDAVIT

Comes the Affiant, David Devine, and after being first duly sworn under penalty of perjury as follows:

1. His/her name is David Devine and he/she is the individual submitting the bid or is the authorized representative of Brenntag Mid-South, Inc.

the entity submitting the bid (hereinafter referred to as "Bidder").

2. Bidder will pay all taxes and fees, which are owed to the Lexington-Fayette Urban County Government at the time the bid is submitted, prior to award of the contract and will maintain a "current" status in regard to those taxes and fees during the life of the contract.

3. Bidder will obtain a Lexington-Fayette Urban County Government business license, if applicable, prior to award of the contract.

4. Bidder has authorized the Division of Central Purchasing to verify the above-mentioned information with the Division of Revenue and to disclose to the Urban County Council that taxes and/or fees are delinquent or that a business license has not been obtained.

5. Bidder has not knowingly violated any provision of the campaign finance laws of the Commonwealth of Kentucky within the past five (5) years and the award of a contract to the Bidder will not violate any provision of the campaign finance laws of the Commonwealth.

6. Bidder has not knowingly violated any provision of Chapter 25 of the Lexington-Fayette Urban County Government Code of Ordinances, known as "Ethics Act."

7. Bidder acknowledges that "knowingly" for purposes of this Affidavit means, with respect to conduct or to circumstances described by a statute or ordinance defining an offense, that a person is aware or should have been aware that his conduct is of that nature or that the circumstance exists.

Further, Affiant sayeth naught.

STATE OF Kentucky

COUNTY OF Scott

The foregoing instrument was subscribed, sworn to and acknowledged before me by David Devine on this the 9 day of March, 2012.

My Commission expires: March 7, 2014

J. Ann Offutt
NOTARY PUBLIC, STATE AT LARGE

Please refer to Section II. Bid Conditions, Item "U" prior to completing this form.

I. GREEN PROCUREMENT

A. ENERGY

The Lexington-Fayette Urban County Government is committed to protecting our environment and being fiscally responsible to our citizens.

The Lexington-Fayette Urban County Government mandates the use of Energy Star compliant products if they are available in the marketplace (go to www.Energystar.gov). If these products are available, but not submitted in your pricing, your bid will be rejected as non-compliant.

ENERGY STAR is a government program that offers businesses and consumers energy-efficient solutions, making it easy to save money while protecting the environment for future generations.

Key Benefits

These products use 25 to 50% less energy
Reduced energy costs without compromising quality or performance
Reduced air pollution because fewer fossil fuels are burned
Significant return on investment
Extended product life and decreased maintenance

B. GREEN SEAL CERTIFIED PRODUCTS

The Lexington-Fayette Urban County Government is also committed to using other environmentally friendly products that do not negatively impact our environment. Green Seal is a non-profit organization devoted to environmental standard setting, product certification, and public education.

Go to www.Greenseal.org to find available certified products. These products will have a reduced impact on the environment and on human health. The products to be used must be pre-approved by the LFUCG prior to commencement of any work in any LFUCG facility. If a Green Seal product is not available, the LFUCG must provide a signed waiver to use an alternate product. Please provide information on the Green Seal products being used with your bid response.

C. GREEN COMMUNITY

The Lexington-Fayette Urban County Government (LFUCG) serves as a principal, along with the University of Kentucky and Fayette County Public Schools, in the Bluegrass Partnership for a Green Community. The Purchasing Team component of the Partnership collaborates on economy of scale purchasing that promotes and enhances environmental initiatives. Specifically, when applicable, each principal is interested in obtaining best value products and/or services which promote environment initiatives via solicitations and awards from the other principals.

If your company is the successful bidder on this Invitation For Bid, do you agree to extend the same product/service pricing to the other principals of the Bluegrass Partnership for a Green Community (i.e. University of Kentucky and Fayette County Schools) if requested?

Yes No

II. Bid Conditions

- A. No bid may be withdrawn for a period of sixty (60) days after the date and time set for opening.
- B. No bid may be altered after the date and time set for opening. In the case of obvious errors, the Division of Central Purchasing may permit the withdrawal of a bid. The decision as to whether a bid may be withdrawn shall be that of the Division of Central Purchasing.
- C. Acceptance of this proposal shall be enactment of an Ordinance by the Urban County Council.
- D. The bidder agrees that the Urban County Government reserves the right to reject any and all bids for either fiscal or technical reasons, and to award each part of the bid separately or all parts to one vendor.
- E. Minor exceptions may not eliminate the bidder. The decision as to whether any exception is minor shall be entirely that of the head of the requisitioning Department or Division and the Director of the Division of Central Purchasing. The Urban County Government may waive technicalities and informalities where such waiver would best serve the interests of the Urban County Government.
- F. Manufacturer's catalogue numbers, trade names, etc., where shown herein are for descriptive purposes and are to guide the bidder in interpreting the standard of quality, design, and performance desired, and shall not be construed to exclude proposals based on furnishing other types of materials and/or services. However, any substitution or departure proposed by the bidder must be clearly noted and described; otherwise, it will be assumed that the bidder intends to supply items specifically mentioned in this Invitation for Bids.
- G. The Urban County Government may require demonstrations of the materials proposed herein prior to acceptance of this proposal.
- H. Bids must be submitted on this form and must be signed by the bidder or his authorized representative. Unsigned bids will not be considered.
- I. Bids must be submitted prior to the date and time indicated for opening. Bids submitted after this time will not be considered.
- J. All bids mailed must be marked on the face of the envelope:

 "Bid on #18-2012 Swimming Pool Chemicals"

 and addressed to: Division of Central Purchasing
 200 East Main Street, Room 338
 Lexington, Kentucky 40507

 The Lexington-Fayette Urban County Government assumes no responsibility for bids that are not addressed and delivered as indicated above. Bids that are not delivered to the Division of Central Purchasing by the stated time and date will be rejected.
- K. Bidder is requested to show both unit prices and lot prices. In the event of error, the unit price shall prevail.
- L. A certified check or Bid Bond in the amount of XX percent of the bid price must be attached hereto. This check must be made payable to the Lexington-Fayette Urban County Government, and will be returned when the material and/or services specified herein have been delivered in accordance with specifications. In the event of failure to perform within the time period set forth

in this bid, it is agreed the certified check may be cashed and the funds retained by the Lexington-Fayette Urban County Government as liquidated damages. Checks of unsuccessful bidders will be returned when the bid has been awarded.

- M. The delivery dates specified by bidder may be a factor in the determination of the successful bidder.
- N. Tabulations of bids received may be mailed to bidders. Bidders requesting tabulations must enclose a stamped, self-addressed envelope with the bid.
- O. The Lexington-Fayette Urban County Government is exempt from Kentucky Sales Tax and Federal Excise Tax on materials purchased from this bid invitation. Materials purchased by the bidder for construction projects are not tax exempt and are the sole responsibility of the bidder.
- P. All material furnished hereunder must be in full compliance with OSHA regulations.
- Q. If more than one bid is offered by one party, or by any person or persons representing a party, all such bids shall be rejected.
- R. Signature on the face of this bid by the Bidder or his authorized representative shall be construed as acceptance of and compliance with all terms and conditions contained herein.
- S. The Entity (regardless of whether construction contractor, non-construction contractor or supplier) agrees to provide equal opportunity in employment for all qualified persons, to prohibit discrimination in employment because of race, color, creed, national origin, sex or age, and to promote equal employment through a positive, continuing program from itself and each of its sub-contracting agents. This program of equal employment opportunity shall apply to every aspect of its employment policies and practices.
- T. The Kentucky Equal Employment Opportunity Act of 1978 (KRS 45.560-45.640) requires that any county, city, town, school district, water district, hospital district, or other political subdivision of the state shall include in directly or indirectly publicly funded contracts for supplies, materials, services, or equipment hereinafter entered into the following provisions:

During the performance of this contract, the contractor agrees as follows:

- (1) *The contractor will not discriminate against any employee or applicant for employment because of race, color, religion, sex, age or national origin;*
- (2) *The contractor will state in all solicitations or advertisements for employees placed by or on behalf of the contractors that all qualified applicants will receive consideration for employment without regard to race, color, religion, sex, age or national origin;*
- (3) *The contractor will post notices in conspicuous places, available to employees and applicants for employment, setting forth the provisions of the non-discrimination clauses required by this section; and*
- (4) *The contractor will send a notice to each labor union or representative of workers with which he has a collective bargaining agreement or other contract or understanding advising the labor union or workers' representative of the contractor's commitments under the nondiscrimination clauses.*

The Act further provides:

KRS 45.610. Hiring minorities - Information required

- (1) *For the length of the contract, each contractor shall hire minorities from other sources*

within the drawing area, should the union with which he has collective bargaining agreements be unwilling to supply sufficient minorities to satisfy the agreed upon goals and timetable.

- (2) *Each contractor shall, for the length of the contract, furnish such information as required by KRS 45.560 to KRS 45.640 and by such rules, regulations and orders issued pursuant thereto and will permit access to all books and records pertaining to his employment practices and work sites by the contracting agency and the department for purposes of investigation to ascertain compliance with KRS 45.560 to 45.640 and such rules, regulations and orders issued pursuant thereto.*

KRS 45.620. Action against contractor - Hiring of minority contractor or subcontractor

- (1) *If any contractor is found by the department to have engaged in an unlawful practice under this chapter during the course of performing under a contract or subcontract covered under KRS 45.560 to 45.640, the department shall so certify to the contracting agency and such certification shall be binding upon the contracting agency unless it is reversed in the course of judicial review.*
- (2) *If the contractor is found to have committed an unlawful practice under KRS 45.560 to 45.640, the contracting agency may cancel or terminate the contract, conditioned upon a program for future compliance approved by the contracting agency and the department. The contracting agency may declare such a contractor ineligible to bid on further contracts with that agency until such time as the contractor complies in full with the requirements of KRS 45.560 to 45.640.*
- (3) *The equal employment provisions of KRS 45.560 to 45.640 may be met in part by a contractor by subcontracting to a minority contractor or subcontractor. For the provisions of KRS 45.560 to 45.640, a minority contractor or subcontractor shall mean a business that is owned and controlled by one or more persons disadvantaged by racial or ethnic circumstances.*

KRS 45.630 Termination of existing employee not required, when

Any provision of KRS 45.560 to 45.640 notwithstanding, no contractor shall be required to terminate an existing employee upon proof that that employee was employed prior to the date of the contract.

KRS 45.640 Minimum skills

Nothing in KRS 45.560 to 45.640 shall require a contractor to hire anyone who fails to demonstrate the minimum skills required to perform a particular job.

It is recommended that all of the provisions above quoted to be included as special conditions in each contract. In the case of a contract exceeding \$250,000, the contractor is required to furnish evidence that his work-force in Kentucky is representative of the available work-force in the area from which he draws employees, or to supply an Affirmative Action plan which will achieve such representation during the life of the contract.

- U. Any party, firm or individual submitting a proposal pursuant to this invitation must be in compliance with the requirements of the Lexington-Fayette Urban County Government regarding taxes and fees before they can be considered for award of this invitation and must maintain a "current" status with regard to those taxes and fees throughout the term of the contract. The contractor must be in compliance with Chapter 13 from the Code of Ordinances

of the Lexington-Fayette Urban County Government. The contractor must be in compliance with Ordinance 35-2000 pursuant to contractor registration with the Division of Building Inspection. If applicable, said business must have a Fayette County business license.

Pursuant to KRS 45A.343 and KRS 45A.345, the contractor shall

- (1) *Reveal any final determination of a violation by the contractor within the previous five year period pursuant to KRS Chapters 136 (corporation and utility taxes), 139 (sales and use taxes), 141 (income taxes), 337 (wages and hours), 338 (occupational safety and health of employees), 341 (unemployment and compensation) and 342 (labor and human rights) that apply to the contractor; and*
- (2) *Be in continuous compliance with the above-mentioned KRS provisions that apply to the contractor for the duration of the contract.*

A contractor's failure to reveal the above or to comply with such provisions for the duration of the contract shall be grounds for cancellation of the contract and disqualification of the contractor from eligibility for future contracts for a period of two (2) years.

- V. Vendors who respond to this invitation have the right to file a notice of contention associated with the bid process or to file a notice of appeal of the recommendation made by the Director of Central Purchasing resulting from this invitation.

Notice of contention with the bid process must be filed within 3 business days of the bid/proposal opening by (1) sending a written notice, including sufficient documentation to support contention, to the Director of the Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his/her contention with the bid process. After consulting with the Commissioner of Finance the Chief Administrative Officer and reviewing the documentation and/or hearing the vendor, the Director of Central Purchasing shall promptly respond in writing findings as to the compliance with bid processes. If, based on this review, a bid process irregularity is deemed to have occurred the Director of Central Purchasing will consult with the Commissioner of Finance, the Chief Administrative Officer and the Department of Law as to the appropriate remedy.

Notice of appeal of a bid recommendation must be filed within 3 business days of the bid recommendation by (1) sending a written notice, including sufficient documentation to support appeal, to the Director, Division of Central Purchasing or (2) submitting a written request for a meeting with the Director of Central Purchasing to explain his appeal. After reviewing the documentation and/or hearing the vendor and consulting with the Commissioner of Finance and the Chief Administrative Officer, the Director of Central Purchasing shall in writing, affirm or withdraw the recommendation.

III. Procurement Contract Bid Conditions

- A. The terms of this agreement shall be for 1 year from the date of acceptance of this contract by the Lexington-Fayette Urban County Government. This agreement may be extended for an additional 1 year renewal upon the written agreement of the bidder and the Lexington-Fayette Urban County Government. Said agreement must be in writing and must be executed prior to the expiration of the current agreement.

- B. Price Changes (Space Checked Applies)
 - (XXX) 1. Prices quoted in response to the Invitation shall be firm prices for the first 90 days of the Procurement Contract. After 90 days, prices may be subject to revision and such changes shall be based on general industry changes. Revision may be either increases or decreases and may be requested by either party. There will be no more than one (1) price adjustment per quarter. Requests for price changes shall be received in writing at least twenty (20) days prior to the effective date and are subject to written acceptance before becoming effective. Proof of the validity of a request for revision shall be responsibility of the requesting party. The Lexington-Fayette Urban County Government shall receive the benefit of any decline that the seller shall offer his other accounts.

 - () 2. No provision for price change is made herein. Prices are to be firm for the term of this contract.

 - () 3. Procurement Level Contract

- C. If any contract item is not available from the vendor, the Lexington-Fayette Urban County Government, at its option, may permit the item to be back-ordered or may procure the item on the open market.

- D. All invoices must bear reference to the Lexington-Fayette Urban County Government Purchasing document numbers which are being billed.

- E. This contract may be canceled by either party thirty (30) days after delivery by canceling party of written notice of intent to cancel to the other contracting party.

- F. This contract may be canceled by the Lexington-Fayette Urban County Government if it is determined that the Bidder has failed to perform under the terms of this agreement, such cancellation to be effective upon receipt of written notice of cancellation by the Bidder.

- G. No substitutions for articles specified herein may be made without prior approval of the Division of Central Purchasing.

EQUAL OPPORTUNITY AGREEMENT

The Law

Title VII of the Civil Rights Act of 1964 (amended 1972) states that it is unlawful for an employer to discriminate in employment because of race, color, religion, sex, age (40-70 years) or national origin.

Executive Order No. 11246 on Nondiscrimination under Federal contract prohibits employment discrimination by contractor and sub-contractor doing business with the Federal Government or recipients of Federal funds. This order was later amended by Executive Order No. 11375 to prohibit discrimination on the basis of sex.

Section 503 of the Rehabilitation Act of 1973 states:

The Contractor will not discriminate against any employee or applicant for employment because of physical or mental handicap.

Section 2012 of the Vietnam Era Veterans Readjustment Act of 1973 requires Affirmative Action on behalf of disabled veterans and veterans of the Vietnam Era by contractors having Federal contracts.

Section 206(A) of Executive Order 12086, Consolidation of Contract Compliance Functions for Equal Employment Opportunity, states:

The Secretary of Labor may investigate the employment practices of any Government contractor or sub-contractor to determine whether or not the contractual provisions specified in Section 202 of this order have been violated.

The Lexington-Fayette Urban County Government practices Equal Opportunity in recruiting, hiring and promoting. It is the Government's intent to affirmatively provide employment opportunities for those individuals who have previously not been allowed to enter into the mainstream of society. Because of its importance to the local Government, this policy carries the full endorsement of the Mayor, Commissioners, Directors and all supervisory personnel. In following this commitment to Equal Employment Opportunity and because the Government is the benefactor of the Federal funds, it is both against the Urban County Government policy and illegal for the Government to let contracts to companies which knowingly or unknowingly practice discrimination in their employment practices. Violation of the above mentioned ordinances may cause a contract to be canceled and the contractors may be declared ineligible for future consideration.

Please sign this statement in the appropriate space acknowledging that you have read and understand the provisions contained herein. Return this document as part of your application packet.

Bidders

I/We agree to comply with the Civil Rights Laws listed above that govern employment rights of minorities, women, Vietnam veterans, handicapped and aged persons.

Daid Derrin

Signature

Brenntag Mid-South

Name of Business

**RISK MANAGEMENT PROVISIONS
INSURANCE AND INDEMNIFICATION**

INDEMNIFICATION AND HOLD HARMLESS PROVISION

- (1) It is understood and agreed by the parties that Vendor hereby assumes the entire responsibility and liability for any and all damages to persons or property caused by or resulting from or arising out of any act or omission on the part of Vendor or its employees, agents, servants, owners, principals, licensees, assigns or subcontractors of any tier (hereinafter "Vendor") under or in connection with this agreement and/or the provision of goods or services and the performance or failure to perform any work required thereby.
- (2) Vendor shall indemnify, save, hold harmless and defend the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, volunteers, and successors in interest (hereinafter "LFUCG") from and against all liability, damages, and losses, including but not limited to, demands, claims, obligations, causes of action, judgments, penalties, fines, liens, costs, expenses, interest, defense costs and reasonable attorney's fees that are in any way incidental to or connected with, or that arise or are alleged to have arisen, directly or indirectly, from or by Vendor's performance or breach of the agreement and/or the provision of goods or services provided that: (a) it is attributable to personal injury, bodily injury, sickness, or death, or to injury to or destruction of property (including the loss of use resulting therefrom), or to or from the negligent acts, errors or omissions or willful misconduct of the Vendor; and (b) not caused solely by the active negligence or willful misconduct of LFUCG.
- (3) In the event LFUCG is alleged to be liable based upon the above, Vendor shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all reasonable attorneys' fees and expenses, court costs, and expert witness fees and expenses, using attorneys approved in writing by LFUCG, which approval shall not be unreasonably withheld.
- (4) These provisions shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this agreement.

FINANCIAL RESPONSIBILITY

BIDDER/VENDOR understands and agrees that it shall, prior to final acceptance of its bid and the commencement of any work, demonstrate the ability to assure compliance with the above Indemnity provisions and these other risk management provisions.

INSURANCE REQUIREMENTS

YOUR ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AND YOU MAY NEED TO CONFER WITH YOUR INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF SUBMISSION OF A RESPONSE THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF YOU FAIL TO COMPLY WITH THE INSURANCE REQUIREMENTS BELOW, YOU MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

Required Insurance Coverage

BIDDER/VENDOR shall procure and maintain for the duration of this contract the following or equivalent insurance policies at no less than the limits shown below and cause its subcontractors to maintain similar insurance with limits acceptable to LFUCG in order to protect

OWNER against claims for injuries to persons or damages to property which may arise from or in connection with the performance of the work hereunder by LFUCG. The cost of such insurance shall be included in any bid:

<u>Coverage</u>	<u>Limits</u>
General Liability (Insurance Services Office Form CG 00 01)	\$1 million per occurrence, \$2 million aggregate or \$2 million combined single limit
Commercial Automobile Liability (Insurance Services Office Form CA 0001)	combined single, \$1 million per occurrence
Worker's Compensation	Statutory
Employer's Liability	\$500,000.00

The policies above shall contain the following conditions:

- a. All Certificates of Insurance forms used by the insurance carrier shall be properly filed and approved by the Department of Insurance for the Commonwealth of Kentucky. LFUCG shall be named as an additional insured in the General Liability Policy and Commercial Automobile Liability Policy using the Kentucky DOI approved forms.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by LFUCG.
- c. The General Liability Policy shall include a Pollution liability and/or Environmental Casualty endorsement unless it is deemed not to apply by OWNER.
- d. LFUCG shall be provided at least 30 days advance written notice via certified mail, return receipt requested, in the event any of the required policies are canceled or non-renewed.
- e. Said coverage shall be written by insurers acceptable to LFUCG and shall be in a form acceptable to LFUCG. Insurance placed with insurers with a rating classification of no less than Excellent (A or A-) and a financial size category of no less than VIII, as defined by the most current Best's Key Rating Guide shall be deemed automatically acceptable.

Renewals

After insurance has been approved by OWNER, evidence of renewal of an expiring policy must be submitted to OWNER, and may be submitted on a manually signed renewal endorsement form. If the policy or carrier has changed, however, new evidence of coverage must be submitted in accordance with these Insurance Requirements.

Deductibles and Self-Insured Programs

IF YOU INTEND TO SUBMIT A SELF-INSURANCE PLAN IT MUST BE FORWARDED TO LEXINGTON-FAYETTE URBAN COUNTY GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO THE RESPONSE DATE. Self-insurance programs, deductibles, and self-insured retentions in insurance policies are subject to separate approval by Lexington-Fayette Urban County Government's Division of Risk Management, upon review of evidence of BIDDER/VENDOR's financial capacity to respond to claims. Any such programs or retentions must provide LFUCG with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If BIDDER/VENDOR

satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, BIDDER/VENDOR agrees to provide Lexington-Fayette Urban County Government, Division of Risk Management, the following data prior to the final acceptance of bid and the commencement of any work:

- a. Latest audited financial statement, including auditor's notes.
- b. Any records of any self-insured trust fund plan or policy and related accounting statements.
- c. Actuarial funding reports or retained losses.
- d. Risk Management Manual or a description of the self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- f. Self-Insured Associations will be considered.

Verification of Coverage

BIDDER/VENDOR agrees to furnish LFUCG with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf prior to final award, and if requested, shall provide LFUCG copies of all insurance policies, including all endorsements.

Right to Review, Audit and Inspect

CONSULANT understands and agrees that LFUCG may review, audit and inspect any and all of its records and operations to insure compliance with these Insurance Requirements.

DEFAULT

BIDDER/VENDOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default and that LFUCG may elect at its option any single remedy or penalty or any combination of remedies and penalties, as available, including but not limited to purchasing insurance and charging BIDDER/VENDOR for any such insurance premiums purchased, or suspending or terminating the work.

00335709

Delivery Instructions:

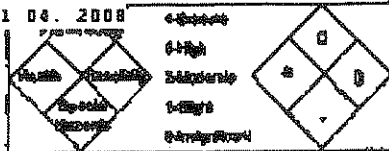
The liquid chlorine is to be delivered to the following sites:

	<u>Pool</u>	<u>Location</u>
1.	Berry Hill Pool	Buckhorn Drive
2.	Castlewood Pool	Park View Drive
3.	Constitution Pool	Old Paris Pike
4.	Dixie Pool	Eastland Parkway
5.	Douglass Pool	Howard Street
6.	Garden Springs Pool	Dogwood Drive
7.	Shillito Pool	Reynolds Road
8.	Southland Pool	Hill n' Dale Drive
9.	Tates Creek Pool	Gainesway Drive
10.	Woodland Pool	Park Avenue
11.	Valley Pool	Cambridge Drive

Delivery truck is not to exceed 3,000 gallon capacity. Delivery truck must be equipped with a minimum of 250 feet of supply hose.

The successful vendor shall provide a storage location for Diatomaceous Earth, Calcium Chloride, and Hydrochloric Acid whereby Lexington-Fayette Urban County Government employees may pick up the products as needed.

The successful bidder must provide evidence of commercial liability, pollution liability, and statutory workers compensation.



Material Safety Data Sheet

No.: 2778 Rev. No.: 4
 Date Revised: 1/01



NEPA/FRE KAZPAC STRUCT
 See EPA 704 for detailed explanation.
 See Section 7 HAZARD IDENTIFICATION

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name(s): FERRA-CEL® - DIATOMACEOUS EARTH CELLULOSE FIBER BLENDS

Generic Name: FLUX CALCINED DIATOMACEOUS EARTH
 Chemical Name: SILICA CELLULOSE BLEND
 Manufacturer: CELITE CORPORATION
 Address: P.O. BOX 518
 City: LOMPFOO State: CA Zip: 93488

DAB: FC DE - 68858-54-0, CELLULOSE - 9004-34-9
 EINECS: FC DE - 272-460-0, CELLULOSE - 232-874-0
 Formula: SiO₂/C₆H₁₀O₅
 Telephone: (805) 735-7781
 Emergency: CHEMTREC - USA: (800) 424-9300
 International: (703) 527-3887 (infect)

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME	CAS NUMBER	%	PEL AND TLV SEE BELOW
FLUX CALCINED DIATOMACEOUS EARTH (DE)	68858-54-0	85-95	6 mg/m ³ RESPIRABLE NUISANCE DUST, OSHA
CELLULOSE FIBER	9004-34-9	5-15	10 mg/m ³ TOTAL NUISANCE DUST, ACGIH
THIS PRODUCT MAY CONTAIN UP TO 64% CRYSTALLINE SILICA:			
CRISTOBALITE	14464-46-1	< 50	25 mg/m ³ RESPIRABLE CRISTOBALITE, OSHA
QUARTZ	14808-01-7	< 4	1 mg/m ³ RESPIRABLE QUARTZ, OSHA

3. HAZARD IDENTIFICATION

Summary: THIS PRODUCT CONTAINS CRYSTALLINE SILICA (CS), WHICH IS CONSIDERED A HAZARD BY INHALATION. IARC HAS CLASSIFIED INHALATION OF CS AS CARCINOGENIC FOR HUMANS (GROUP 1). CS IS LISTED BY NTP AS A SUBSTANCE WHICH MAY REASONABLY BE ANTICIPATED TO BE A CARCINOGEN. INHALATION OF CS IS ALSO A KNOWN CAUSE OF SILICOSIS, A NONCANCEROUS LUNG DISEASE.

Medical conditions which may be aggravated: PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASE SUCH AS, BUT NOT LIMITED TO BRONCHITIS, EMPHYSEMA AND ASTHMA.
Target Organ(s): LUNGS, EYES

Acute Health Effects: TRANSITORY UPPER RESPIRATORY OR EYE IRRITATION.
Chronic Health Effects: INHALATION OF CRYSTALLINE SILICA HAS BEEN CLASSIFIED BY IARC AS CARCINOGENIC FOR HUMANS (GROUP 1). INHALATION OF CRYSTALLINE SILICA IS ALSO A KNOWN CAUSE OF SILICOSIS, A NONCANCEROUS LUNG DISEASE CAUSED BY EXCESSIVE EXPOSURE TO CRYSTALLINE SILICA.

Primary Entry Route(s): INHALATION, DUST CONTACT WITH EYES.

Inhalation: IRRITATION AND SORENESS IN THROAT & NOSE. IN EXTREME EXPOSURES SOME CONGESTION MAY OCCUR.
Eyes: TEMPORARY IRRITATION OR INFLAMMATION.
Skin Contact: NA **Skin Absorption:** NA **Ingestion:** NOT HAZARDOUS WHEN INGESTED.

4. FIRST AID MEASURES

Inhalation: REMOVE TO FRESH AIR. DRINK WATER TO CLEAR THROAT AND BLOW NOSE TO EVACUATE DUST.
Eyes: FLUSH EYES WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CONSULT A PHYSICIAN.
Skin Contact: NA **Skin Absorption:** NA **Ingestion:** NA

5. FIRE FIGHTING MEASURES

Flash Point (Method): NONFLAMMABLE **NFPA Flammable/Combustible Liquid Classification:** NA
Flammable Limits: LEL: NA **UEL:** NA **Auto-ignition Temperature:** NA
Extinguishing Media: NA **Unusual Fire or Explosion Hazards:** NONE **Special Fire-Fighting Procedures:** NONE

6. ACCIDENTAL RELEASE MEASURES

Procedures for Spill/Leak: VACUUM CLEAN DUST WITH EQUIPMENT FITTED WITH HEPA FILTER. USE A DUST SUPPRESSANT SUCH AS WATER IF SWEEPING IS NECESSARY.

Friday, April 04, 2008

7. HANDLING AND STORAGE

MINIMIZE DUST GENERATION AND ACCUMULATION. AVOID BREATHING DUST, AVOID CONTACT WITH EYES. SEAL BROKEN BAGS IMMEDIATELY. CONTINUE TO FOLLOW ALL MSDS LABEL WARNINGS WHEN HANDLING EMPTY CONTAINERS.

8. EXPOSURE CONTROL/PERSONAL PROTECTION

Goggles: GOGGLES OR SAFETY GLASSES WITH SIDESHIELDS ARE RECOMMENDED.

Gloves: NOT NORMALLY REQUIRED.

Respirator: <10X PEL, USE AN N95 QUARTER OR HALF MASK RESPIRATOR; <50X PEL, USE A FULL FACE RESPIRATOR EQUIPPED WITH N95 FILTERS; <200X PEL, USE A POWERED AIR PURIFYING RESPIRATOR (POSITIVE PRESSURE) WITH N95 FILTERS; >200X PEL, USE A FULL FACE, TYPE C SUPPLIED AIR RESPIRATOR (CONTINUOUS FLOW MODE).

Ventilation: USE SUFFICIENT NATURAL OR MECHANICAL VENTILATION TO KEEP DUST LEVEL BELOW PEL.

Other: Special Considerations for repair/maintenance of contaminated equipment: INSURE PROPER RESPIRATORY PROTECTION.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: FINE WHITE/TAN POWDER, NO ODOR.

Boiling Point:	NA	Evaporation Rate (= 1):	NA	Specific Gravity (water = 1):	2.3
Vapor Pressure:	NA	Melting Point:	ND	% Volatile by Volume:	NIL
Water Solubility (%):	NEGLIGIBLE	Vapor Density (Air=1):	NA	pH:	ND

10. STABILITY AND REACTIVITY

MATERIAL IS STABLE.

Chemical Incompatibility: HYDROFLUORIC ACID.

HAZARDOUS POLYMERIZATION CANNOT OCCUR.

Conditions to Avoid: NONE IN DESIGNED USE.

11. TOXICOLOGICAL INFORMATION

Summary: THIS PRODUCT CONTAINS CRYSTALLINE SILICA (CS), WHICH IS CONSIDERED A HAZARD BY INHALATION. IARC HAS CLASSIFIED CS AS CARCINOGENIC FOR HUMANS (GROUP 1). CS IS LISTED BY NTP AS A SUBSTANCE WHICH MAY REASONABLY BE ANTICIPATED TO BE A CARCINOGEN. CS IS ALSO A KNOWN CAUSE OF SILICOSIS, A NONCANCEROUS LUNG DISEASE.

12. ECOLOGICAL INFORMATION

GENERALLY CONSIDERED CHEMICALLY INERT IN THE ENVIRONMENT. USED MATERIAL WHICH HAS BECOME CONTAMINATED MAY HAVE SIGNIFICANTLY DIFFERENT CHARACTERISTICS BASED ON THE CONTAMINANT AND SHOULD BE EVALUATED ACCORDINGLY.

13. DISPOSAL CONSIDERATIONS

WASTE IS NOT HAZARDOUS AS DEFINED BY RCRA (40 CFR 261). OTHER STATE AND LOCAL REGULATIONS MAY VARY. CONSULT LOCAL AGENCIES AS NEEDED. USED MATERIAL WHICH HAS BECOME CONTAMINATED MAY HAVE SIGNIFICANTLY DIFFERENT CHARACTERISTICS BASED ON THE CONTAMINANTS AND SHOULD BE EVALUATED ACCORDINGLY.

14. TRANSPORTATION INFORMATION

D.O.T. Proper Shipping Name: EARTH, DIATOMACEOUS, CRUDE OR GROUND Hazard Classification: NOT CLASSIFIED
Reportable Quantity: NOT APPLICABLE UN (United Nations), NA (North America) Number: NOT APPLICABLE

15. REGULATORY INFORMATION

OSHA Hazard Communications Standard, 29 CFR 1910.1200: MATERIAL IS CONSIDERED HAZARDOUS, SEE SECTION 3 OF THIS MSDS.

RCRA: THIS MATERIAL IS NOT DEFINED AS HAZARDOUS WASTE PER 40 CFR 261.

TSCA: THIS MATERIAL IS LISTED BY THE TSCA INVENTORY, AND IS NOT OTHERWISE REGULATED BY TSCA SEC. 4, 6, 7 OR 12.

DEQ/CLA: MATERIAL IS NOT REPORTABLE UNDER CERCLA, LOCAL REQUIREMENTS MAY VARY.

SAHA: 311/312 HAZARD CATEGORIES - IMMEDIATE AND DELAYED HEALTH, 313 REPORTABLE INGREDIENTS - NONE.

California Proposition 65: THIS PRODUCT CONTAINS CHEMICALS KNOWN TO THE STATE OF CALIFORNIA TO CAUSE CANCER.

16. OTHER INFORMATION

Storage Segregation Hazard Classes: NA

Special Handling/Storage: REPAIR ALL BROKEN BAGS IMMEDIATELY.

Special Workplace Engineering Controls: ADEQUATE VENTILATION TO KEEP DUST LEVEL BELOW PEL.

Prepared/Revised by: CHRIS PAULEY

Title: DIRECTOR, HEALTH & SAFETY SERVICES

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state laws. However, no warranty or representation with respect to such information is intended or given.



Material Safety Data Sheet

The Dow Chemical Company

Product Name: CALCIUM CHLORIDE 77-80% FLAKE (BULK)

Issue Date: 12/14/2005
Print Date: 10 Jan 2006

The Dow Chemical Company encourages and expects you to read and understand the entire (M)SDS, as there is important information throughout the document. We expect you to follow the precautions identified in this document unless your use conditions would necessitate other appropriate methods or actions.

1. Product and Company Identification

Product Name

CALCIUM CHLORIDE 77-80% FLAKE (BULK)

COMPANY IDENTIFICATION

The Dow Chemical Company
2030 Willard H. Dow Center
Midland, MI 48674
USA

Customer Information Number:

800-258-2436

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact:

989-636-4400

2. Hazards Identification

Emergency Overview

Color: White

Physical State: Flakes

Odor: Odorless

Hazards of product:

WARNING! Causes eye irritation. May cause skin irritation. May be harmful if swallowed.

OSHA Hazard Communication Standard

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Potential Health Effects

Eye Contact: For dust: May cause severe eye irritation. May cause corneal injury. Effects may be slow to heal.

Skin Contact: Brief contact is essentially nonirritating to skin. Prolonged contact may cause skin irritation, even a burn. Not classified as corrosive to the skin according to DOT guidelines. May cause more severe response if skin is damp. May cause more severe response if skin is abraded (scratched or cut). May cause more severe response on covered skin (under clothing, gloves).

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts.

* Indicates a Trademark

Product Name: CALCIUM CHLORIDE 77-80% FLAKE (BULK)

Issue Date: 12/14/2005

Inhalation: Dust may cause irritation to upper respiratory tract (nose and throat). Vapors are unlikely due to physical properties.

Ingestion: Low toxicity if swallowed. Small amounts swallowed incidentally as a result of normal handling operations are not likely to cause injury; however, swallowing larger amounts may cause injury. Swallowing may result in gastrointestinal irritation or ulceration.

Effects of Repeated Exposure: The data presented are for the following material: Potassium chloride. In animals, effects have been reported on the following organs after ingestion:

Gastrointestinal tract. Heart. Kidney. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

3. Composition Information

Component	CAS #	Amount
Calcium chloride	10043-52-4	> 77.0 - < 80.0 %
Water	7732-18-5	< 19.0 %
Potassium chloride	7447-40-7	2.5 %
Sodium chloride	7647-14-5	1.5 %

4. First-aid measures

Eye Contact: Immediately flush eyes with water; remove contact lenses, if present, after the first 5 minutes, then continue flushing eyes for at least 15 minutes. Obtain medical attention without delay, preferably from an ophthalmologist.

Skin Contact: Wash skin with plenty of water.

Inhalation: Move person to fresh air; if effects occur, consult a physician.

Ingestion: Do not induce vomiting. Give one cup (8 ounces or 240 ml) of water or milk if available and transport to a medical facility. Do not give anything by mouth to an unconscious person.

Notes to Physician: Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

Extinguishing Media: This material does not burn. If exposed to fire from another source, use suitable extinguishing agent for that fire.

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. This material does not burn. Fight fire for other material that is burning. Water should be applied in large quantities as fine spray.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Unusual Fire and Explosion Hazards: Heat is generated when product mixes with water.

Hazardous Combustion Products: Not applicable

6. Accidental Release Measures

Steps to be Taken if Material is Released or Spilled: Small and large spills: Contain spilled material if possible. Collect in suitable and properly labeled containers. Flush residue with plenty of water. See Section 13, Disposal Considerations, for additional information.

Personal Precautions: Isolate area. Keep unnecessary and unprotected personnel from entering the area. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection. Refer to Section 7, Handling, for additional precautionary measures.

Environmental Precautions: Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See Section 12, Ecological Information.

7. Handling and Storage

Handling

General Handling: Heat developed during diluting or dissolving is very high. Use cool water when diluting or dissolving (temperature less than 80°F, 27°C). Avoid contact with eyes, skin, and clothing. Do not swallow. Wash thoroughly after handling. Keep container closed. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

Store in a dry place. Protect from atmospheric moisture.

8. Exposure Controls / Personal Protection

Exposure Limits

Component	List	Type	Value
Calcium chloride	Dow IHG	TWA	10 mg/m3

Personal Protection

Eye/Face Protection: Use safety glasses. For dusty operations or when handling solutions of the material, wear chemical goggles.

Skin Protection: Wear clean, body-covering clothing.

Hand protection: Use gloves chemically resistant to this material. If hands are cut or scratched, use gloves chemically resistant to this material even for brief exposures. Examples of preferred glove barrier materials include: Neoprene, Polyvinyl chloride ("PVC" or "vinyl"), Nitrile/butadiene rubber ("nitrile" or "NBR"). NOTICE: The selection of a specific glove for a particular application and duration of use in a workplace should also take into account all relevant workplace factors such as, but not limited to: Other chemicals which may be handled, physical requirements (cut/puncture protection, dexterity, thermal protection), potential body reactions to glove materials, as well as the instructions/specifications provided by the glove supplier.

Respiratory Protection: Atmospheric levels should be maintained below the exposure guideline. When respiratory protection is required for certain operations, use an approved air-purifying respirator. In dusty or misty atmospheres, use an approved particulate respirator. The following should be effective types of air-purifying respirators: Particulate filter.

Ingestion: Use good personal hygiene. Do not consume or store food in the work area. Wash hands before smoking or eating.

Engineering Controls

Ventilation: Provide general and/or local exhaust ventilation to control airborne levels below the exposure guidelines.

Product Name: CALCIUM CHLORIDE 77-80% FLAKE (BULK)

Issue Date: 12/14/2005

9. Physical and Chemical Properties

Physical State	Flakes
Color	White
Odor	Odorless
Flash Point - Closed Cup	Not applicable
Flammable Limits in Air	Lower: Not applicable Upper: Not applicable
Autoignition Temperature	Not applicable
Vapor Pressure	1.0 mmHg @ 25 °C <i>Literature</i>
Boiling Point (760 mmHg)	Not applicable
Vapor Density (air = 1)	Not applicable
Specific Gravity (H ₂ O = 1)	Not applicable
Bulk Density	51 - 60 lb/ft ³ <i>Estimated</i>
Freezing Point	Not applicable
Melting Point	174 °C (345 °F) <i>Literature</i>
Solubility in Water (by weight)	readily soluble
pH	Not applicable

10. Stability and Reactivity

Stability/Instability

Stable. Hygroscopic.

Conditions to Avoid: None known. Avoid moisture.

Incompatible Materials: Heat is generated when mixed with water. Spattering and boiling can occur. Avoid contact with: Sulfuric acid. Corrosive when wet. Flammable hydrogen may be generated from contact with metals such as: Zinc. Sodium.

Hazardous Polymerization

Will not occur.

Thermal Decomposition

Does not decompose.

11. Toxicological Information

Acute Toxicity

Ingestion

|| For the major component(s): LD50, Rat 900 - 2,100 mg/kg

Skin Absorption

|| For the major component(s): LD50, Rabbit > 5,000 mg/kg

Repeated Dose Toxicity

|| The data presented are for the following material: Potassium chloride. In animals, effects have been reported on the following organs after ingestion: Gastrointestinal tract. Heart. Kidney. Dose levels producing these effects were many times higher than any dose levels expected from exposure due to use.

Developmental Toxicity

|| For the major component(s): Did not cause birth defects or any other fetal effects in laboratory animals.

Genetic Toxicology

The data presented are for the following material: Calcium chloride or CaCl₂. In vitro genetic toxicity studies were negative. The data presented are for the following material Potassium chloride. In vitro genetic toxicity studies were positive. However, the relevance of this to humans is unknown.

12. Ecological Information

CHEMICAL FATE

Data for Component: Calcium chloride

Movement & Partitioning

No bioconcentration is expected because of the relatively high water solubility. Partitioning from water to n-octanol is not applicable.

Persistence and Degradability

Biodegradation is not applicable.

Data for Component: Potassium chloride

Movement & Partitioning

Partitioning from water to n-octanol is not applicable.

Persistence and Degradability

Biodegradation is not applicable.

Data for Component: Sodium chloride

Movement & Partitioning

No bioconcentration is expected because of the relatively high water solubility. Potential for mobility in soil is very high (Koc between 0 and 50). Partitioning from water to n-octanol is not applicable.

Persistence and Degradability

Biodegradation is not applicable.

ECOTOXICITY

Data for Component: Calcium chloride

Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC₅₀, bluegill (*Lepomis macrochirus*): 8,350 - 10,650 mg/l

Aquatic Invertebrate Acute Toxicity

LC₅₀, water flea *Daphnia magna*: 759 - 3,005 mg/l

Toxicity to Micro-organisms

EC₅₀: activated sludge, respiration inhibition: > 1,000 mg/l

Data for Component: Potassium chloride

Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

LC₅₀, rainbow trout (*Oncorhynchus mykiss*), 96 h: 4,236 mg/l

Aquatic Invertebrate Acute Toxicity

EC₅₀, water flea *Daphnia magna*, 24 h, immobilization: 590 mg/l

LC₅₀, water flea *Ceriodaphnia dubia*, 96 h: 3,470 mg/l

Data for Component: Sodium chloride

Material is practically non-toxic to aquatic organisms on an acute basis (LC₅₀/EC₅₀ >100 mg/L in the most sensitive species tested).

Fish Acute & Prolonged Toxicity

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- || LC50, fathead minnow (*Pimephales promelas*): 10,610 mg/l
Aquatic Invertebrate Acute Toxicity
- || LC50, water flea *Daphnia magna*: 4,571 mg/l
Toxicity to Micro-organisms
- || IC50, OECD 209 Test; activated sludge, respiration inhibition: > 1,000 mg/l

13. Disposal Considerations

All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Reclaimer. Landfill. Waste water treatment system. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

14. Transport Information

|| DOT Non-Bulk
NOT REGULATED

|| DOT Bulk
NOT REGULATED

|| IMDG
NOT REGULATED

|| ICAO/IATA
NOT REGULATED

This information is not intended to convey all specific regulatory or operational requirements/information relating to this product. Additional transportation system information can be obtained through an authorized sales or customer service representative. It is the responsibility of the transporting organization to follow all applicable laws, regulations and rules relating to the transportation of the material.

15. Regulatory Information

OSHA Hazard Communication Standard
This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Sections 311 and 312

Immediate (Acute) Health Hazard	Yes
Delayed (Chronic) Health Hazard	No
Fire Hazard	No
Reactive Hazard	No
Sudden Release of Pressure Hazard	No

Product Name: CALCIUM CHLORIDE 77-80% FLAKE (BULK)

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Superfund Amendments and Reauthorization Act of 1986 Title III (Emergency Planning and Community Right-to-Know Act of 1986) Section 313

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Hazardous Substances List and/or Pennsylvania Environmental Hazardous Substance List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

Pennsylvania (Worker and Community Right-To-Know Act): Pennsylvania Special Hazardous Substances List:

To the best of our knowledge, this product does not contain chemicals at levels which require reporting under this statute.

California Proposition 65 (Safe Drinking Water and Toxic Enforcement Act of 1986)

This product contains no listed substances known to the State of California to cause cancer, birth defects or other reproductive harm, at levels which would require a warning under the statute.

US. Toxic Substances Control Act

All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30

CEPA - Domestic Substances List (DSL)

All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

16. Other Information**Recommended Uses and Restrictions**

A calcium chloride product- Snow and Ice melting. Dust Control For Industrial use. Dow recommends that you use this product in a manner consistent with the listed use. If your intended use is not consistent with Dow's stated use, please contact Dow's Customer Information Group.

Revision

Identification Number: 79738 / 1001 / Issue Date 12/14/2005 / Version: 2.0

Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ DES	Hazard Designation

The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that its activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product

Product Name: CALCIUM CHLORIDE 77-80% FLAKE (BULK)

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as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

BRENNTAG MID-SOUTH, INC.
MATERIAL SAFETY DATA SHEET
 Effective Date: July 19, 2004

SODIUM HYPOCHLORITE SOLUTION

SECTION I - MATERIAL IDENTIFICATION

MANUFACTURER'S NAME & ADDRESS:

BRENNTAG MID-SOUTH, Inc.
 1405 Highway 136 West / Geneva Road
 Henderson, Kentucky 42420

EMERGENCY TELEPHONE NUMBER:

270-830-1222

CHEMICAL NAME AND SYNONYMS: Sodium Hypochlorite Solution (10-14.2%); Hypochlorite Solution; Bleach Solution, Hypochlorous acid, sodium salt, &/or AB Bleach; sodium hypochlorite/DI Water

CHEMICAL FAMILY: Hypochlorite

FORMULA: NaOCl

SECTION II - HAZARDOUS INGREDIENTS

CAS NUMBER	CHEMICAL NAME(S)	WT %	THRESHOLD LIMIT VALUES (UNITS)			
			OSHA:		ACGIH:	
			PEL	STEL	TLV	STEL
7681-52-9	Sodium hypochlorite**	10 - 14.2	— NONE ESTABLISHED —			
1310-73-2	Sodium hydroxide	0.3 - 1.0	2 mg/m ³ Ceiling	—	2 mg/m ³ Ceiling	—
7647-14-5	Sodium Chloride	9 - 12.5	— NONE ESTABLISHED —			
497-19-8	Sodium carbonate	≤ 0.5	— NONE ESTABLISHED —			
7732-18-5	Water	Balance	— NONE ESTABLISHED —			

This product does not contain any chemical (s) subject to reporting requirements of Section 313, Title III of SARA, Part 372.

** % (w/w) as Cl₂ 9.5 to 13.55% TLV/TWA (ACGIH) 0.5ppm Cl₂; TLV/STEL (ACGIH) 1ppm Cl₂ & PEL (OSHA) 1ppm Cl₂

SECTION III - PHYSICAL DATA

BOILING POINT °F (°C): 110 °C for 15% NaOCl

SPECIFIC GRAVITY (H₂O=1): 1.08 - 1.27

VAPOR DENSITY (AIR =1): n.a.

EVAPORATION RATE: n.a.

VAPOR PRESSURE (mmHg): Vapor pressure of water plus decomposition products.

PERCENT VOLATILE BY VOLUME (%): Water vapor plus decomposition products.

SOLUBILITY IN WATER: Complete

APPEARANCE AND ODOR: Light, yellow-green liquid with pungent-like chlorine odor.

SECTION IV - FIRE AND EXPLOSION HAZARD DATA

FLASH POINT (METHOD USED): Non - flammable

FLAMMABLE LIMITS (% BY VOLUME): n.a.

EXTINGUISHING MEDIA: Use water spray, fog, foam, dry chemicals, or carbon dioxide.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear protective equipment including self contained breathing apparatus. Avoid fumes. Dilute spill with copious amounts of water, ventilate. Be prepared to use respirator.

UNUSUAL FIRE AND EXPLOSION HAZARDS: Possible vigorous reaction upon contamination with organics or oxidizing agents. Bleach decomposes when heated, decomposition products may cause containers to rupture or explode. Many reactions can cause fire and explosion. This material will react with some metals which may cause liberation of oxygen. Toxic fumes can be liberated by contact with acid or heat.

BRENNTAG MID-SOUTH, INC.
MATERIAL SAFETY DATA SHEET
 Effective Date: July 19, 2004

SODIUM HYPOCHLORITE SOLUTION

Vigorous reactions can occur with oxidizable materials and organics. Keep material cool using a water spray from a safe distance. Keep all unnecessary people away. Stay up wind and stay out of low-lying areas.

SECTION V - HEALTH HAZARD DATA

EFFECTS OF OVEREXPOSURE:

PRECAUTIONARY STATEMENTS (Hazards to humans and domestic animals): Danger! Corrosive! May cause severe skin and eye irritation or chemical burns to broken skin. Causes eye damage. Exposure to skin may cause sensitization or other allergic responses.

INHALATION: Corrosive! Product may cause severe irritation of the nose, throat and respiratory tract. Repeated and/or prolonged exposures may cause productive cough, runny nose, bronchopneumonia, pulmonary edema (fluid build-up in lungs), and reduction of pulmonary function. Repeated inhalation exposure may cause impairment of lung function and permanent lung damage.

EYE CONTACT: Extremely corrosive! This product causes corneal scarring and clouding. Glaucoma, cataracts and permanent blindness may occur.

SKIN CONTACT: Corrosive! Concentrated solutions may cause pain and deep and severe burns to the skin. Prolonged and repeated exposure to diluted solutions often causes irritation, redness, pain and drying and cracking of the skin. Human evidence has indicated that an ingredient in this product can cause skin sensitization.

INGESTION: Corrosive! Will immediately cause severe corrosion of and damage to the gastrointestinal tract. Exposure characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration.

PRIMARY ROUTES OF ENTRY: Inhalation and contact.

CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN: NTP/No IARC/No OSHA/No ACGIH/A4*
 * as Chlorine

EMERGENCY AND FIRST AID PROCEDURES:

INHALATION: Remove victim to fresh air. Give artificial respiration if not breathing. Get medical attention.

EYE CONTACT: Wash eyes with plenty of water for at least 15 minutes while holding eyelids open. Consult an eye specialist immediately.

SKIN CONTACT: Flush skin with plenty of water while removing contaminated clothing. Get medical attention for persistent irritation. Clean clothing before reuse.

INGESTION: If swallowed drink large quantities of water. Do NOT induce vomiting. Call a poison control center or doctor immediately for treatment advice. If spontaneous vomiting occurs, have victim lean forward with head down to avoid breathing in of vomitus, rinse mouth and administer more water.

SECTION VI - TOXICOLOGICAL INFORMATION

TOXICITY DATA: Oral LD50: 8,910 mg/kg. (Rats)
 Dermal LD 50: > 10,000mg/kg. (Rabbits)
 Inhalation 0.25-hour LC 50: >10.5 mg/l (Rats)
 Acute oral toxicity: IV; LD50, 192 mg/kg

Acute dermal toxicity: III; LD50, > 3,000 mg/kg
 Primary eye irritation: I; Corrosive
 Primary skin irritation: I; Corrosive

SUMMARY: The concentrated solution is corrosive to skin, and a 5% solution is a severe eye irritant. Solutions containing more than 5% available chlorine are classified by DOT corrosive. Toxicity described in animals from single exposures by ingestion includes muscular weakness, and hyperactivity. Repeated ingestion exposure in animals caused an increase in the relative weight of adrenal glands in one study, but no pathological change were observed in two other studies. Long-term administration of compound



BRENNTAG MID-SOUTH, INC.
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SODIUM HYPOCHLORITE SOLUTION

in drinking water of rats caused depression of the immune system. No adverse changes were observed in an eight-week dermal study of a 1% solution in guinea pigs. Tests in animals demonstrate no carcinogenic activity by either the oral or dermal routes. Tests in bacterial and mammalian cell cultures demonstrate mutagenic activity.

SECTION VII - ECOLOGICAL INFORMATION

ENVIRONMENTAL HAZARDS: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluents containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact you State Water Board or Regional Office of the EPA.

Acute oral-bobwhite quail: LD50, > 2510 mg/kg
 Acute dietary-mallard duck: LC50, > 5220 ppm
 Acute dietary-bobwhite quail: LC50, > 5620 ppm
 Acute fish-rainbow trout: LC50, 0.18-0.22 mg/l
 Acute fish-bluegill sunfish: LC50, 0.44-0.79 mg/l

Acute invertebrate-daphnia: LC50, 0.033-0.048 mg/l
 Fathead minnows: 96-hour LC50, 5.9 mg/L
 Rainbow Trout: 96-hour LC50, 0.2mg/liter
 Bluegill sunfish: 96-hour LC50, 0.58mg/liter

SECTION VIII - REACTIVITY DATA

STABILITY: Unstable (Contingent upon temperature, contamination (metals), and pH)

HAZARDOUS POLYMERIZATION: Will not occur.

CONDITIONS TO AVOID: Heat, light exposure, decrease in pH, and contamination with heavy metals; such as nickel, cobalt, copper and iron.

INCOMPATIBILITY (MATERIALS TO AVOID): Heavy metals, reducing agents, organics, ether, ammonia, ammonium acetate, ammonium carbonate, ammonium nitrate, ammonium oxalate, ammonium phosphate, urea and acids.

HAZARDOUS DECOMPOSITION PRODUCTS: Hypochlorous acid, chlorine, hydrochloric acid, sodium chloride, sodium chlorate, and oxygen. Decomposition of sodium hypochlorite takes place within a few seconds with following salts: ammonium acetate, ammonium carbonate, ammonium nitrate, ammonium oxalate, and ammonium phosphate. Hypochlorites react with urea to form nitrogen trichloride, which explodes spontaneously in air.

SECTION IX - SPILL OR LEAK PROCEDURES

STEPS TO BE TAKEN IN CASE MATERIAL IS RELEASED OR SPILLED: Personnel with proper protective equipment should contain spill. Flush area with large amounts of water. Use reducing agents such as bisulfites or ferrous salt solutions to neutralize.

WASTE DISPOSAL METHOD: Disposal is to be in accordance with all Federal, State, and Local regulations.

SECTION X - SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: When fumes present, use NIOSH approved respirator with acid type canister.

VENTILATION: Local exhaust preferable as required to control fumes.

PROTECTIVE GLOVES: Rubber or plastic.

EYE PROTECTION: Chemical goggles.

OTHER PROTECTIVE EQUIPMENT: Clothing to protect skin. Safety shower and eye wash fountain.

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SECTION XI - SPECIAL PRECAUTIONS

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORAGE: Store this product in a cool dry area; away from direct sunlight and heat to avoid deterioration. In case of spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not reuse container. Do not contaminate food or feed by storage, disposal or cleaning of equipment. Most metals and metal alloys are NOT suitable for use in contact with sodium hypochlorite solutions including aluminum, brass, bronze, copper, cast iron, galvanized steel, mild steel, nickel, or stainless steel, since these metals act as a catalyst which will cause rapid decomposition of the sodium hypochlorite solution through the release of oxygen.

Sodium hypochlorite solutions are basically unstable, and on exposure to heat and/or light, will slowly decompose, becoming less concentrated with time. Sodium hypochlorite solutions should never be allowed to contact or mix with acids or other low pH compounds, due to the release of chlorine gas. Do not allow sodium hypochlorite to mix with ammonia, since chloramines may be formed.

Decomposition of sodium hypochlorite takes place within a few seconds with following salts: ammonium acetate, ammonium carbonate, ammonium nitrate, ammonium oxalate, and ammonium phosphate.

Hypochlorites react with urea to form nitrogen trichloride, which explodes spontaneously in air.

Solutions of sodium hypochlorite are corrosive to the skin, eyes, and mucous membranes. Proper safety equipment should be used when working with or in close proximity of sodium hypochlorite.

OTHER PRECAUTIONS: Use with adequate ventilation. Wash thoroughly after handling. Do not get in eyes, on skin or clothing. Do NOT breathe fumes or mist. Mixing this product with chemicals (e.g. common household cleaners, ammonia, acids, detergents, etc.) or organic matter will release chlorine gas, which is irritating to eyes, lungs, and mucous membranes.

STRONG OXIDIZING AGENT: Mix only with water according to label directions. Mixing this product with chemicals (e.g. common household cleaners, ammonia, acids, detergents, etc.) or organic matter (e.g. urine, feces, etc.) will release chlorine gas, which is irritating to eyes, lungs and mucous membranes.

HAZARD RATING: Health 3 Flammability 0 Reactivity 2

SECTION XII - D.O.T. SHIPPING INFORMATION
--

PROPER SHIPPING NAME: Hypochlorite Solutions

HAZARD CLASS: 8 (Corrosive)

UN/NA: UN 1791

PACKING GROUP: III

D.O.T. LABEL REQUIRED: Corrosive

REPORTABLE QUANTITY OF PRODUCT: 800 to 2,000 lbs.



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SECTION XIII – REGULATORY INFORMATION

TSCA (Toxic Substance Control Act): All components of this product are listed on the TSCA inventory.

CERCLA AND SARA REGULATIONS, 40 CFR §300-373:

Super fund Reportable Discharge = 100 pounds (100% NaOCl) CERCLA Hazardous Material: yes

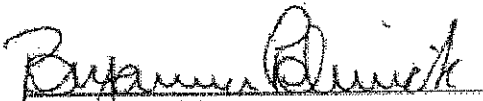
SARA Extremely Hazardous substance: No SARA Toxic Chemical: No

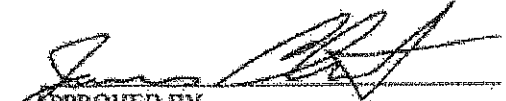
Title III Hazard Classifications: Acute: yes Chronic: yes Fire: no Reactivity: yes Pressure: No

EPA "CLEAN AIR ACT": This product does not contain nor is it manufactured with ozone depleting substances.

OTHER REGULATIONS/LEGISLATION THAT APPLY TO THIS PRODUCT: Massachusetts, Pennsylvania, and New Jersey Right-to Know Laws.

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PREPARED BY


APPROVED BY

Material Safety Data Sheet

May be used to comply with
OSHA's Hazard Communication Standard
29 CFR 1910.1200. Standard must be
consulted for specific requirements.



REAGENT CHEMICAL & RESEARCH, INC.
115 US Hwy 202 Ringoes, NJ 08551

REVISED DATE: 1/1/2006

VALID UNTIL 1/1/2011

IDENTITY

Hydrochloric Acid, 20° or 22° Baume

Note: Blank spaces are not permitted. If any item is not applicable, or no
information is available, the space must be marked to indicate that.

Section I - Product Information

Product Name	CAS #
Hydrochloric Acid	7647-01-0
Synonym	Chemical Formula
Muriatic Acid	HCl
Chemical Name	Chemical Family
Hydrochloric Acid Solution	Inorganic Acid

Section II - Manufacturers Information

Manufacturers Name	Address
Reagent Chemical & Research, Inc.	115 US Hwy 202 Ringoes, NJ 08551
Emergency Contact	Country
Robert Dritschel	United States
Emergency Telephone	Emergency Telephone #2
1-409-962-5769	CHEMTREC 1-800-424-9300

Section III - Ingredients/Regulatory Information

Substance Description	Percent	CAS #
Hydrogen Chloride	26.00 - 37.00	7647-01-0
Water	63.00 - 74.00	7732-18-5

EXPOSURE LIMITS/REGULATORY INFORMATION

Substance	PEL	TLV	STEL	TWA	CEILING
Hydrogen Chloride	C-7 mg/m ³	C-5 ppm	50 ppm	N/D	5 ppm
Water	N/D	N/D	N/D	N/D	N/D

N/D - Not Determined C = Ceiling Level

Section IV - Hazards Identification

Appearance & Odor	Statement of Hazards
Clear/Pale Yellow Liquid/Pungent Odor	Severe and painful burns upon contact

Primary Route of Exposure

Skin, eye and inhalation contact are the primary routes of exposure to this product

Inhalation Acute Exposure Effects

Inhalation of excessive concentrations of Hydrogen Chloride vapors immediately

produces severe irritation of the upper respiratory tract; resulting in coughing,

burning of the throat, and a choking sensation. Reactions encountered in man have

usually been limited to inflammation occasional ulceration of the nose, throat and

larynx. If inhaled deeply, edema of the lungs may occur.

Skin Contact Acute Exposure Effects

Concentrated solutions are destructive to clothing and on contact with skin, causes

severe burns unless promptly washed off. Repeated skin contact with dilute solutions

may lead to the development of dermatitis. Exposure to the concentrated vapors of

Hydrogen Chloride may also result in burns and dermatitis.

Section IV - Hazards Identification (continued)

Eye Contact Acute Exposure Effects

Contact of the eyes with Hydrogen Chloride, either as a gas or in solution, rapidly causes severe irritation and painful burns of the eyes and eyelids. If the acid is not quickly removed by thorough irrigation with water, there may be prolonged or permanent visual impairment or total loss of sight.

Ingestion Acute Exposure Effects

When concentrated Hydrochloric Acid is swallowed, it causes severe burns of the mucous membranes of the mouth, esophagus and stomach. The lips and mouth usually turn white, and later brown. There is pain in the throat and stomach, difficulty in swallowing, intense thirst, nausea and in severe cases, collapse and unconsciousness.

Fire and Explosion Hazards

Non-flammable, but Hydrochloric Acid reacts with all metals, except gold and platinum, with rapid evolution of Hydrogen which is flammable and explosive in air. Firefighters exposed to Hydrochloric Acid vapors should wear Scott Air-Pak, or equivalent. Hydrogen Chloride vapors are extremely irritating to the respiratory tract and may cause breathing difficulty.

Carcinogenicity

IARC	...No	OSHA	...No	ACGIH	...No
------	-------	------	-------	-------	-------

Section V - First Aid Measures

General

If a known exposure occurs or is suspected, immediately initiate the recommended procedures below. Simultaneously contact a physician, or the nearest Poison Control Center. Inform the person contacted of the type and extent of exposure, describe the victim's symptoms and follow the advice given. For additional information, call day or night, Reagent Chemical (409) 962-5769 or Chemtrec (800) 424-9300.

Inhalation

Remove from contaminated atmosphere. If breathing has ceased, clear the victim's airway and start mouth-to-mouth artificial respiration, which may be supplemented by the use of a bag-mask respirator, or a manually-triggered, oxygen supply capable of delivering 1 liter/second or more. If the victim is breathing, oxygen may be administered from a demand-type or continuous-flow inhalator, preferably with a physician's advice. Contact a physician immediately.

Eye Contact

Immediately flush the eyes with large quantities of running water for 15 minutes. Hold the eyelids apart during the flushing to ensure rinsing of the entire surface of the eyes and lids with water. DO NOT attempt to neutralize with chemical agents. Obtain medical attention as soon as possible. Oils or ointments should not be used. Continue the flushing for an additional 15 minutes if the physician is not available.

Section V - First Aid Measures (continued)

Skin Contact

Immediately remove contaminated clothing under a safety shower. Flush all affected areas with large amounts of water for 15 minutes. DO NOT attempt to neutralize with chemical agents. Obtain medical advice.

Ingestion

DO NOT induce vomiting. Immediately give large quantities of water or milk, if available. If vomiting does occur, give fluids again. Never give anything by mouth to an unconscious person. Call a physician of the nearest Poison Control Center.

Medical Conditions Generally Aggravated by Exposure

Hydrogen Chloride will aggravate breathing disorders

Note to Physician

Attending Physician should treat exposed patients symptomatically

Section VI - Fire Fighting Measures

Flash Point

N.A.

Flash Method

N.A.

Extinguishing Method

Not Applicable

Unusual Fire and Explosion Hazards

Non-flammable, but Hydrochloric Acid reacts with metals.

Special Firefighting Procedures

Non-flammable, but Hydrochloric Acid reacts with all metals, except gold and platinum, with rapid evolution of Hydrogen which is flammable and explosive in air.

Firefighters exposed to Hydrochloric Acid vapors should wear Scott Air-Pak, or equivalent. Hydrogen Chloride vapors are extremely irritating to the respiratory tract and may cause breathing difficulty.

Section VII - Accidental Release Measures

Steps to be Taken in Case Material is Released or Spilled

Spills or discharges into the environment involving large quantities of Hydrochloric Acid should be controlled and cleaned-up according to a pre-determined, affirmative written Spill Prevention and Control Program. For assistance in developing a SPCP contact your nearest Reagent Sales Office.

Spills should be handled immediately by neutralization and dilution of the spilled product by the use of Soda Ash (Sodium Carbonate), Lime (Calcium Hydroxide), or Limestone (Calcium Carbonate) with large amounts of water. For an interior (inside a closed space) spill be aware that the use of Soda Ash, Lime and Limestone will evolve heat and carbon dioxide and that ample ventilation must be provided.

Waste Disposal

Under Federal RCRA, it is the responsibility of the user of products to determine, at the time of disposal, whether the product falls under RCRA as a hazardous waste. This is because product uses, transformations, mixtures, etc. may render the resulting end-product hazardous.

Container Disposal

Containers should be cleaned of residual product before disposal. Empty containers should be disposed of in accordance with all applicable laws and regulations.

Section VII - Accidental Release Measures (continued)

Precautions to be Taken in Handling and Storage

Make sure all personnel involved in housekeeping and spill clean-up follow good

Industrial Hygiene practices and wear proper protective equipment.

Section VIII - Handling/Storage/Transportation

Handling

Chemical goggles and full face shield must be worn at all times by personnel

exposed to or handling Hydrochloric Acid. The use of a NIOSH approved cartridge

respirator or a Scott Air-Pak should be used by all personnel exposed.

Storage

Store containers in a cool, dry location away from direct sunlight, sources of

intense heat, or where freezing may occur. Store material in acid-proof container.

Keep container tightly closed when not in use. Keep container away from incompatible

materials. All loading, unloading, and storage equipment must be inspected prior to

any transfer operations are initiated.

General Comments

Impervious clothing, gloves, footwear and head gear must be worn at all times

by personnel exposed to or handling Hydrochloric Acid.

Section IX - Exposure Controls/Personal Protection

Respiratory Protection (Specify Type)

Maintain airborne contaminate levels below listed guidelines. Use with adequate

ventilation. Use a mechanical fan or vent area to scrubber.

Ventilation	Local Exhaust	Special
	If PEL exceeded	Vent fumes to appropriate scrubber
	Mechanical (General)	Other
	If PEL exceeded	Not Applicable

Skin Protection

Wear neoprene rubber gloves to minimize skin contact.

Eye Protection

Splash goggles or safety glasses. Face shields are recommended.

Other Protection

Use body protection appropriate for task. An apron or other impermeable body

protection is suggested. Full body chemical protection is recommended for

emergency response procedures.

Applicable Exposure Limits

Other than any exposure limits which may be displayed in Section 3, there are no other

known exposure limits applicable to this product or its components.

Section X - Physical and Chemical Properties

Boiling Point	230 F	Specific Gravity (H2O = 1)	1.13 - 1.19
Vapor Pressure (mm Hg)	50 - 60 mm	Freezing Point	-12 F to -63 F
Vapor Density (AIR = 1)	N.A.	Density	9.48 - 9.61

Solubility in Water

miscible

Appearance and Odor

Clear/Slightly yellow with a sharp pungent odor

Section XI - Stability and Reactivity

Stability	Unstable	X	Conditions to Avoid
	Stable		Hydrochloric Acid is extremely reactive. Avoid contact with metal surfaces and oxidizing agents.

Section XI - Stability and Reactivity (continued)

Incompatibility (Materials to Avoid)

Hydrochloric Acid is chemically stable when properly contained and handled. It is a strong mineral acid and reacts with many metals and metal oxides and hydroxides to form the equivalent metal chloride. It reacts with zeolites and other silicious compounds to form Hydrosilicic Acid; it reacts with carbonates to form Carbon Dioxide and Water. It is oxidized by Oxygen or electrolysis to form chlorine, a lethal, poisonous gas. It reacts with alkaline compounds to form a neutral salt. It is a hydrolyzing agent for carbohydrates, esters and other compounds. Its reaction with most metals will produce Hydrogen, an explosive gas. Violent reactions will result when Hydrochloric Acid Reacts with acetic anhydride, 2-aminoethanol, ammonium hydroxide, calcium phosphide, chlorosulfonic acid, ethylene diamine, ethylene imine, oleum (fuming sulfuric acid), perchloric acid, beta propiolactone, propylene oxide, sodium hydroxide, sulfuric acid, uranium phosphide and vinyl acetate. This listing is not all-inclusive.

Hazardous Decomposition or By-products

Extreme heat may cause the product to decompose, producing toxic fumes which may include chlorine compounds.

Hazardous Polymerization	May Occur	Conditions to Avoid
	Will Not Occur	Extreme heat and contact with incompatible materials
	X	

Section XII - Toxicological Information

Route(s) of Entry:	Inhalation?	Skin?	Ingestion?
	Yes	Yes	Yes

Health Hazards (Acute and Chronic)

Hydrogen Chloride, both as a gas and in a solution as Hydrochloric Acid, is a corrosive substance and can cause severe and painful burns on contact with any part of the body or if taken internally. The mucous membranes of the eyes and the upper respiratory tract are especially susceptible to the irritating effects of high atmospheric concentrations of Hydrogen Chloride. The gas or vapor is so penetrating and pungent that when high concentrations do occur, those exposed should immediately leave the contaminated area.

Carcinogenicity:	NTP?	IARC Monographs?	OSHA Regulated?
	No	No	No

Signs and Symptoms of Exposure

Exposure to Hydrochloric acid may cause severe burns at the contact points

Medical Conditions Generally Aggravated by Exposure

Exposure to fumes may aggravate dermatitis and breathing disorders.

Toxicology	Inhalation Data
	Human LCLo - 1300 ppm/30 min
Hydrogen Chloride	Rat LC ₅₀ - 4701 ppm/30 min
	Oral (rabbit) LD ₅₀ - 900 mg/kg
Mutagenic Effects	Inhalation: 100 ppm/24 hrs (Chromosome damage)
	Oral:: 100 ppm (Chromosome damage)
	Parental: 20 mg (Cytogenic effects)

Section XIII - Ecological Information

Ecological Toxicity

Animals exposed to hydrochloric acid solution will experience tissue damage, burns and may be killed. Plants contaminated with hydrochloric acid solutions of low pH may be adversely effected or destroyed. High concentrations have been shown to be detrimental

to aquatic life. A release into a body of water will kill fish and other aquatic life.

Other Ecological Information

Hydrochloric acid is stable and found naturally in the environment. All work practices should be aimed at eliminating environmental contamination.

Chemical Fate Information

Hydrochloric acid is naturally occurring in the environment.

Other Regulatory Information

No other regulatory information is available on this product.

Section XIV - Transportation Information

Regulated Material

Hydrochloric Acid is defined as hazardous by the US Dot and Transport Canada

DOMESTIC SHIPPING INFORMATION

Proper Shipping Name	Hydrochloric Acid	Hazard Classification	Corrosive
UN/NA Identification	UN 1789	Hazard Class	Class 8
DOT Labels Required	Corrosive	Packaging Group	II

INTERNATIONAL SHIPPING INFORMATION

Proper Shipping Name	Hydrochloric Acid	Hazard Classification	Corrosive
UN/NA Identification	UN 1789	Hazard Class	Class 8
Labels Required	Corrosive	Packaging Group	II

Section XV - Other Information

Created By Product Safety - 6/1/98	MSDS Revision Number Revision # 005
Toxic Substances Control Act TSCA listed 7647-01-0	Superfund Amendment & Reauthorization Act, Title III Acute & Chronic Hazard Categories HEALTH: Chronic
Emergency Planning & Community Right to Know EHS - Threshold Quantity: None	PHYSICAL: None
Is product Regulated Under 1990 Clean Air Act? No	Does Product Contain, or is Manufactured with, CFC's? No
Reportable Quantity: RQ - 5000 lbs	NSF Listing Scale & Corrosion control at maximum 40 mg/l
NFPA 3 - 0 - 0 - Acid	HMIS 3 - 0 - 0 - X
Is This Product Regulated Under the EPA's Risk Management Plans No, Hydrochloric Acid Solution under 37% is not regulated.	
North American Emergency Response Guide Book ID # 1789 Guide #157 1996 Revision	

Disclaimer of Liability

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Monday, March 22, 2010

MATERIAL SAFETY DATA SHEET

MSDS

Page: 1 of 8
 Date Issued: 05/04/2008
 MSDS Ref No: PCL21179
 Date Revised: 06/09/2008
 Revision No: New MSDS

Prochlor Sticks

1. PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Prochlor Sticks
GENERAL USE: Swimming pool sanitizer
CHEMICAL FAMILY: Chlorinated isocyanurates

MANUFACTURER

Asepals, Inc.
 Prochlor
 P.O. Box 537
 Avondale Estates, GA 30002
 Customer SERVICE: (800)969-7948

24 HR. EMERGENCY TELEPHONE NUMBERS

CHEMTREC (Transportation) (800) 424-9300
 Poison Control Center (Medical) (877)800-6553

COMMENTS:

EPA Registration Number: 5195-144-10306

2. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS#	WT %
Trichloro-s-triazinetriane	87-00-1	99

3. HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW

PHYSICAL APPEARANCE:

White sticks.

IMMEDIATE CONCERNS:

DANGER: Highly Corrosive. Causes skin and eye damage. May be fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear goggles or safety glasses and rubber gloves when handling this product. Irritating to nose and throat. Avoid breathing dust and fumes. Remove contaminated clothing and wash before reuse.

POTENTIAL HEALTH EFFECTS

EYES:

DANGER: Highly Corrosive. Causes eye damage. Do not get in eyes.

SKIN:

DANGER: Highly Corrosive. Causes skin damage. Do not get on skin.

INGESTION:

May be fatal if swallowed.

Monday, March 22, 2010

MATERIAL SAFETY DATA SHEET**MSDS**

Page: 2 of 3
Date Issued: 03/05/2003
MSDS Ref No: PCL13173
Date Revised: 03/05/2003
Revision No: New MSDS

Prochlor Sticks**INHALATION:**

Irritating to nose and throat. Avoid breathing dust or fumes.

SIGNS AND SYMPTOMS OF OVEREXPOSURE**EYES:**

May result in corrosion to the eyes. Dust or vapors may cause irritation and tearing.

SKIN:

Dermal contact is expected to be a primary route of exposure and can cause skin irritation which may result in corrosion if not promptly removed.

INGESTION:

Will result in burning of mouth, throat and esophagus, abdominal distress and severe irritation, possible corrosion of the digestive tract.

INHALATION:

Breathing dust or fumes is expected to be a primary route of exposure and may produce throat and respiratory tract irritation.

ROUTES OF ENTRY:

Skin Contact, Inhalation, Ingestion, Eye Contact

COMMENTS HEALTH:

There are no known chronic hazards.

4. FIRST AID MEASURES**EYES:**

If contact with eyes occurs: Immediately flush with cold water for at least 15 minutes. Then get immediate medical attention.

SKIN:

If contact with skin: Brush off excess chemical and flush skin with cold water for at least 15 minutes. If irritation persists, get medical attention.

INGESTION:

If swallowed: Drink promptly large quantities of water. Do not induce vomiting. Avoid alcohol. Never give anything by mouth to an unconscious person. Call a physician or poison control center immediately.

INHALATION:

If inhaled: Remove to fresh air. If breathing is difficult, have trained person administer oxygen. If not breathing, give artificial respiration. Call a physician immediately.

NOTES TO PHYSICIAN:

Probable mucosal damage may contraindicate the use of gastric lavage.

Monday, March 22, 2010

MATERIAL SAFETY DATA SHEET**MSDS**

Page: 3 of 8
Date Created: 03/06/2001
MSDS Ref. No: PCL21578
Data Revised: 03/09/2001
Revision No: New MSDS

Prochlor Sticks**5. FIRE FIGHTING MEASURES**

FLASHPOINT AND METHOD: Not Applicable
AUTOIGNITION TEMPERATURE: Not Applicable

GENERAL HAZARD:

This product did not ignite when exposed to pellet scale burn tests. When in direct contact with combustible material, this product may slightly enhance the burning rate of the combustible material. Under extreme heat (greater than 400F), this product will evolve noxious chlorine containing gases necessitating the need for self contained breathing apparatus (SCBA) when applying extinguishing media (WATER).

EXTINGUISHING MEDIA:

In case of fire or smoke, call the fire department. Do not attempt to extinguish the fire without a self-contained breathing apparatus (SCBA). Do not let the fire burn. Flood with copious amounts of water. DO NOT use ABC or other dry chemical extinguishers since there is the potential for a violent reaction.

EXPLOSION HAZARDS:

Nitrogen trichloride can be generated slowly by the reaction of small quantities of water with a high concentration of this product. Nitrogen trichloride can present an explosion hazard.

Immediately after a fire has been extinguished, check for wet or damp material. Any spilled material from burned or broken containers should be assumed contaminated. Neutralize to a non-oxidizing material for safe disposal. Do not attempt to re-close broken containers, even for movement to the disposal area. They should be left open to disperse any nitrogen trichloride that may form.

Material which appears undamaged except for being damp on the outside, should be opened and inspected immediately. If the plastic liner (where applicable) of the container is damaged or the material is damp, the material should be chemically treated if allowable, to a non-oxidizing material for safe disposal.

Bulging containers require extreme care. Contact the fire department.

FIRE FIGHTING PROCEDURES:

Firefighters should wear full protective clothing and self-contained breathing apparatus (SCBA). Using a 10% solution of sodium carbonate, thoroughly decontaminate fire fighting equipment including all fire fighting wearing apparel after the incident.

6. ACCIDENTAL RELEASE MEASURES**GENERAL PROCEDURES:**

Using appropriate protective clothing and safety equipment, contain spilled material. Do not add water to spilled material. Using clean dedicated equipment, sweep and scoop all spilled material, contaminated soil, and other contaminated material and place into clean dry containers for disposal.

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MATERIAL SAFETY DATA SHEET

MSDS

Page: 4 of 8
 Date-Issued: 03/09/2001
 MSDS Ref No: PCL11372
 Date-Revised: 03/09/2001
 Revision No: New MSDS

Prochlor Sticks

Do not use floor sweeping compounds to clean up spills. Do not close containers containing wet or damp material. They should be left open to disperse any hazardous gases that may form. Do not transport wet or damp material. Keep product out of sewers, watersheds and water systems. Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Dispose of according to local, state and federal regulations.

7. HANDLING AND STORAGE

HANDLING:

STRONG OXIDIZING AGENT Do not mix with other chemicals. Mix only with water. Never add water to product. Always add product to large quantities of water. Use clean dry utensils. Do not add this product to any dispensing device containing remnants of any other product. Such use may cause a violent reaction leading to fire or explosion. Contamination with moisture, organic matter or other chemicals will start a chemical reaction and generate heat, hazardous gas, possible fire and explosion. In case of contamination or decomposition, do not reuse container. If possible, isolate container in open air or well ventilated area. Flood area with large volumes of water.

STORAGE:

Keep this product in original closed container when not in use. Store in a cool, dry, well ventilated area away from heat or open flame. Do not contaminate water, food or feed by storage or disposal or cleaning of equipment. Do not store above 125 F (52 C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

EXPOSURE GUIDELINES:

OSHA HAZARDOUS COMPONENTS (29 CFR 1910.1200)

		EXPOSURE LIMITS					
		OSHA PEL		ACGIH TLV		SUPPLIER OEL	
		ppm	mg/m ³	ppm	mg/m ³	ppm	mg/m ³
Trichloro-s-triazinetrione	TWA	N/E ⁽¹⁾		N/E			

OSHA TABLE COMMENTS:

1. N/E = Not Established

ENGINEERING CONTROLS:

General room ventilation plus local exhaust should be used to minimize exposure to dust/vapors.

PERSONAL PROTECTIVE EQUIPMENT:

EYES AND FACE:

Wear goggles or safety glasses with side shields when handling this product.

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MATERIAL SAFETY DATA SHEET**MSDS**

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Date Issued: 03/05/2003
MSDS Ref. No: PCL11173
Date Revised: 03/09/2001
Revision No: New MSDS

Prochlor Sticks**SKIN:**

Wear rubber gloves when handling this product. Avoid contact with skin.

RESPIRATORY:

A respiratory protection program that meets OSHA 1910.134 and ANSI Z88.2 requirements must be followed whenever workplace conditions warrant a respirator's use.

WORK HYGIENIC PRACTICES:

Remove and wash contaminated clothing before reuse.

OTHER USE PRECAUTIONS:

Facilities storing or utilizing this material should be equipped with an eyewash and safety shower.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE: Solid

ODOR: Chlorine

APPEARANCE: Cylinder-shaped

COLOR: White

pH: 3 to 3.5 (1% solution @ 25 C)

VAPOR PRESSURE: Not Available

VAPOR DENSITY: Not Determined

BOILING POINT: Not Applicable

FREEZING POINT: Not Applicable

THERMAL DECOMPOSITION: 225°C to 230°C

SOLUBILITY IN WATER: 1.2g/100g Water

DENSITY: 56 - 60 lb / cu ft

10. STABILITY AND REACTIVITY**CONDITIONS TO AVOID:**

High temperature. Poor ventilation. Contamination. Moisture/High humidity.

STABILITY:

This product is stable under normal conditions.

POLYMERIZATION:

Hazardous polymerization will not occur under normal conditions.

HAZARDOUS DECOMPOSITION PRODUCTS:

Chlorine containing gases can be produced.

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MATERIAL SAFETY DATA SHEET**MSDS**

Page: 1 of 8

Date Issued: 03/05/2001

MSDS Ref. No: FCSL11922

Date Revised: 03/05/2001

Revision No: New MSDS

Prochlor Sticks**INCOMPATIBLE MATERIALS:**

This material is a strong oxidizing agent. Avoid contact with water on concentrated material in the container. Also avoid contact with easily oxidizable organic material; ammonia, urea, or similar nitrogen containing compounds; inorganic reducing compounds; floor sweeping compounds; calcium hypochlorite; alkalis; other swimming pool/spa chemicals in their concentrated forms.

11. TOXICOLOGICAL INFORMATION**ACUTE**

DERMAL LD₅₀: 7600 mg/kg of body weight in rabbits.

ORAL LD₅₀: 800 mg/kg of body weight in rats

On contact with moisture, this material readily hydrolyzes to hypochlorous acid and cyanuric acid. The tissue damage resulting from contact is considered to result, in part, from its hypochlorous acid decomposition products. May cause gastrointestinal and respiratory tract irritation. May be severely irritating or corrosive to eyes and skin.

EYE EFFECTS:

This product is corrosive to eyes.

SKIN EFFECTS:

This product is corrosive to skin.

CHRONIC / SUBCHRONIC:

Chronic exposure to large amounts of this compound has not been characterized and the irritating properties of the compound make such an exposure highly unlikely.

CARCINOGENICITY:

This product is not listed as a carcinogen by IARC.

This product is not listed as a carcinogen by NTP.

This product is not listed as a carcinogen by OSHA.

12. ECOLOGICAL INFORMATION**ECOTOXICOLOGICAL INFORMATION:**

This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds or estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

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MATERIAL SAFETY DATA SHEET**MSDS**

Page: 7 of 8
Date Printed: 03/02/2003
MSDS Ref No: PCL21373
Date Revised: 03/02/2003
Revision No: New MSDS

Prochlor Sticks**13. DISPOSAL CONSIDERATIONS****DISPOSAL METHOD:**

Pesticide wastes are toxic. Improper disposal of excess pesticide or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste Representative at the nearest EPA Regional Office for guidance. Do not contaminate water, food, or feed by storage or disposal or cleaning of equipment. Do not put product, spilled product, or filled or partially filled containers into the trash or waste compactors. Contact with incompatible materials could cause a reaction or fire.

EMPTY CONTAINER:

Do not reuse container. Rinse thoroughly before discarding in trash.

14. TRANSPORT INFORMATION**DOT (DEPARTMENT OF TRANSPORTATION)**

PROPER SHIPPING NAME: Trichloroacetic Acid, Dry

PRIMARY HAZARD CLASS/DIVISION: 5.1

UN/NA NUMBER: 2408

PACKING GROUP: II

15. REGULATORY INFORMATION**UNITED STATES****SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT)**

313 REPORTABLE INGREDIENTS: This product or its components are not listed.

CERCLA (COMPREHENSIVE RESPONSE, COMPENSATION, AND LIABILITY ACT)

CERCLA REGULATORY: This product or its components are not listed.

TSCA (TOXIC SUBSTANCE CONTROL ACT)

TSCA REGULATORY: This product or its components are not subject to export notification.

TSCA STATUS: This product or its components are listed on the TSCA Inventory.

OSHA HAZARD COMM. RULE:

Product is hazardous by definition of the Hazardous Communication Standard.

FIFRA (FEDERAL INSECTICIDE, FUNGICIDE, AND RODENTICIDE ACT):

This product is a registered pesticide.

16. OTHER INFORMATION

Monday, March 22, 2010

MATERIAL SAFETY DATA SHEET

MSDS

Page: 2 of 2
Date-Added: 03/05/2001
MSDS Ref. No: PCL21272
Date-Revised: 02/09/2001
Revision No: New MSDS

Prochlor Sticks

PREPARED BY: Regulatory Affairs Department

REVISION SUMMARY

New MSDS

NFPA CODES

HEALTH: 3 FIRE: 1 REACTIVITY: 1

NFPA STORAGE CLASSIFICATION:

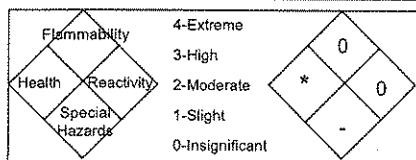
NFPA Oxidizer Class 1

HMS CODES

HEALTH: 3 FIRE: 1 REACTIVITY: 1 PROTECTION: B

MANUFACTURER DISCLAIMER:

IMPORTANT: This information is given without a warranty or guarantee. No suggestions for use are intended or shall be construed as a recommendation to infringe any existing patents or violate any Federal, State or local laws. Safe handling and use is the responsibility of the customer. Read the label before using this product. This information is true and accurate to the best of our knowledge.



NFPA FIRE HAZARD SYMBOL
See NFPA 704 for detailed explanation.

* See Section 3 HAZARD IDENTIFICATION

Material Safety Data Sheet

No.: 2911

Rev. No.: 4

Date Revised: 1/17/2007



HARBORLITE®

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Trade Name(s): HARBORLITE® AQUAPERL®

Generic Name: PERLITE (EXPANDED)
Chemical Name: AMORPHOUS ALUMINA SILICATE
Manufacturer: HARBORLITE CORPORATION
Address: P.O. BOX 519
City: LOMPOC State: CA Zip: 93438

CAS: 93763-70-3
EINECS: UNKNOWN
Formula: MIXTURE
Telephone: (805) 735-7791
Emergency: CHEMTREC - USA: (800) 424-9300
International: (703) 527-3887 (collect)

2. COMPOSITION/INFORMATION ON INGREDIENTS

INGREDIENT NAME:	CAS NUMBER:	%	PEL AND TLV (except as noted)
PERLITE (AMORPHOUS ALUMINA SILICATE)	130885-09-5	100	5 mg/M ³ RESPIRABLE NUISANCE DUST, OSHA 10mg/M ³ TOTAL NUISANCE DUST, ACGIH

3. HAZARD IDENTIFICATION

Summary: PROLONGED AND REPEATED EXPOSURE TO EXCESSIVE CONCENTRATIONS OF THIS PRODUCT'S DUST, OR ANY NUISANCE DUST, CAN CAUSE CHRONIC PULMONARY DISEASE. DUST CONTACT WITH EYES MAY CAUSE TEMPORARY SCRATCHINESS OR REDNESS. THIS PRODUCT HAS NOT BEEN CLASSIFIED AS A CARCINOGEN BY NTP OR IARC.

Medical conditions which may be aggravated: PRE-EXISTING UPPER RESPIRATORY AND LUNG DISEASE SUCH AS, BUT NOT LIMITED TO BRONCHITIS, EMPHYSEMA AND ASTHMA.
Target Organ(s): LUNGS, EYES

Acute Health Effects: TRANSITORY UPPER RESPIRATORY OR EYE IRRITATION.

Chronic Health Effects: PROLONGED AND REPEATED EXPOSURES TO EXCESSIVE CONCENTRATIONS OF PRODUCT DUST, IN EXCESS OF THE PEL/TLV, CAN CAUSE CHRONIC PULMONARY DISEASE.

Primary Entry Route(s): INHALATION, DUST CONTACT WITH EYES.

Inhalation: IRRITATION AND SORENESS IN THROAT & NOSE. IN EXTREME EXPOSURES SOME CONGESTION MAY OCCUR.

Eyes: TEMPORARY IRRITATION OR INFLAMMATION.

Skin Contact: NA **Skin Absorption:** NA **Ingestion:** NOT HAZARDOUS WHEN INGESTED.

4. FIRST AID MEASURES

Inhalation: REMOVE TO FRESH AIR. DRINK WATER TO CLEAR THROAT AND BLOW NOSE TO EVACUATE DUST.

Eyes: FLUSH EYES WITH LARGE QUANTITIES OF WATER. IF IRRITATION PERSISTS CONSULT A PHYSICIAN.

Skin Contact: NA **Skin Absorption:** NA **Ingestion:** NA

5. FIRE FIGHTING MEASURES

Flash Point (Method): NONFLAMMABLE

NFPA Flammable/Combustible Liquid Classification: NA

Flammable Limits: LEL: NA UEL: NA

Auto-Ignition Temperature: NA

Extinguishing Media: NA **Unusual Fire or Explosion Hazards:** NONE **Special Fire-Fighting Procedures:** NONE

6. ACCIDENTAL RELEASE MEASURES

Procedures for Spill/Leak: VACUUM CLEAN DUST WITH EQUIPMENT FITTED WITH HEPA FILTER. USE A DUST SUPPRESSANT SUCH AS WATER IF SWEEPING IS NECESSARY-

7. HANDLING AND STORAGE

MINIMIZE DUST GENERATION AND ACCUMULATION. AVOID BREATHING DUST, AVOID CONTACT WITH EYES. SEAL BROKEN BAGS IMMEDIATELY. CONTINUE TO FOLLOW ALL MSDS/LABEL WARNINGS WHEN HANDLING EMPTY CONTAINERS.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Goggles: GOGGLES OR SAFETY GLASSES WITH SIDESHIELDS ARE RECOMMENDED.

Gloves: NOT NORMALLY REQUIRED.

Respirator: <10X PEL, USE AN N95 QUARTER OR HALF MASK RESPIRATOR; <50X PEL, USE A FULL FACE RESPIRATOR EQUIPPED WITH N95 FILTERS; <200X PEL, USE A POWERED AIR PURIFYING RESPIRATOR (POSITIVE PRESSURE) WITH N95 FILTERS; >200X PEL, USE A FULL FACE, TYPE C SUPPLIED AIR RESPIRATOR (CONTINUOUS FLOW MODE).

Ventilation: USE SUFFICIENT NATURAL OR MECHANICAL VENTILATION TO KEEP DUST LEVEL BELOW PEL.

Other: Special Considerations for repair/maintenance of contaminated equipment: INSURE PROPER RESPIRATORY PROTECTION.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance and Odor: WHITE POWDERY SOLID, NO ODOR.

Boiling Point: NA

Vapor Pressure: NA

Water Solubility (%): NEGLIGIBLE

Evaporation Rate (= 1): NA

Melting Point: 2000 F

Vapor Density (Air=1): NA

Specific Gravity (water = 1): 2.2 - 2.4

Specific Gravity (bulk): 0.08 - 0.20

pH: 6.5 - 7.5

% Volatile by Volume: NIL

10. STABILITY AND REACTIVITY

MATERIAL IS STABLE.

Chemical Incompatibilities: HYDROFLUORIC ACID.

HAZARDOUS POLYMERIZATION CANNOT OCCUR.

Conditions to Avoid: NONE IN DESIGNED USE.

11. TOXICOLOGICAL INFORMATION

Summary: PROLONGED AND REPEATED EXPOSURE TO EXCESSIVE CONCENTRATIONS OF THIS PRODUCT'S DUST, OR ANY NUISANCE DUST, CAN CAUSE CHRONIC PULMONARY DISEASE. DUST CONTACT WITH EYES MAY CAUSE TEMPORARY SCRATCHINESS OR REDNESS. THIS PRODUCT HAS NOT BEEN CLASSIFIED AS A CARCINOGEN BY NTP OR IARC.

12. ECOLOGICAL INFORMATION

GENERALLY CONSIDERED CHEMICALLY INERT IN THE ENVIRONMENT. USED MATERIAL WHICH HAS BECOME CONTAMINATED MAY HAVE SIGNIFICANTLY DIFFERENT CHARACTERISTICS BASED ON THE CONTAMINANT AND SHOULD BE EVALUATED ACCORDINGLY.

13. DISPOSAL CONSIDERATIONS

WASTE IS NOT HAZARDOUS AS DEFINED BY RCRA (40 CFR 261). OTHER STATE AND LOCAL REGULATIONS MAY VARY, CONSULT LOCAL AGENCIES AS NEEDED. USED MATERIAL WHICH HAS BECOME CONTAMINATED MAY HAVE SIGNIFICANTLY DIFFERENT CHARACTERISTICS BASED ON THE CONTAMINANTS AND SHOULD BE EVALUATED ACCORDINGLY.

14. TRANSPORTATION INFORMATION

D.O.T. Proper Shipping Name: PERLITE CRUDE

Hazard Classification: NOT CLASSIFIED

Reportable Quantities: NOT APPLICABLE

UN (United Nations), NA(North America) Number: NOT APPLICABLE

15. REGULATORY INFORMATION

OSHA Hazard Communications Standard, 29 CFR 1910.1200: MATERIAL IS CONSIDERED HAZARDOUS, SEE SECTION 3.

RCRA: THIS MATERIAL IS NOT DEFINED AS HAZARDOUS WASTE PER 40 CFR 261.

TSCA: THIS MATERIAL IS LISTED IN THE TSCA INVENTORY, AND IS NOT OTHERWISE REGULATED BY TSCA SEC. 4, 5, 6, 7 OR 12.

CERCLA: MATERIAL IS NOT REPORTABLE UNDER CERCLA, LOCAL REQUIREMENTS MAY VARY.

SARA: 311/312 HAZARD CATEGORIES - IMMEDIATE AND DELAYED HEALTH, 313 REPORTABLE INGREDIENTS - NONE.

Canada: THIS PRODUCT IS LISTED ON THE DSL.

California Proposition 65: NOT APPLICABLE

16. OTHER INFORMATION

Storage Segregation Hazard Classes: NA

Special Handling/Storage: REPAIR ALL BROKEN BAGS IMMEDIATELY.

Special Workplace Engineering Controls: ADEQUATE VENTILATION TO KEEP DUST LEVEL BELOW PEL.

Prepared/Revised by: WORLD MINERALS ENVIRONMENTAL HEALTH & SAFETY SERVICES

As of the date of preparation of this document, the foregoing information is believed to be accurate and is provided in good faith to comply with applicable federal and state law(s). However, no warranty or representation with respect to such information is intended or given.