

Lexington-Fayette Urban County Government

Lexington, Kentucky Horse Capital of the World

Division of Central Purchasing

Date of Issue: January 11, 2017

INVITATION TO BID #1-2017 Odor Control Chemicals

January 25 200 East M		Time: 2:00 PM
Price Contr	act	
N/A N/A	Pre Bid Time:	N/A
ceived in the o	office of the Division of Central Purchasing, 200 East Main Street, Lexing 17. Bids must be <u>received</u> by the above-mentioned date and time. Maile	gton, Kentucky, until 2:00 PM , d bids should be sent to:
	Division of Central Purchasing 200 East Main Street, Room 338 Lexington, KY 40507, (859) 258-3320	
e not deliver	ed to the Division of Central Purchasing by the stated time and	date will be rejected. All bids
shipping costs	to the point of delivery located at: Various Fayette County Locations	
:Y	es X No Cashier Check, Certified Check, Bid Bond (Personal checks and co	mpany checks will not be acceptable).
equired:Y	es <u>X</u> No	
tations Met _	Check One: Exceptions to Bid Specifications. Exceptions shall be itemized and attached to bid proposal submitted.	Proposed Delivery:2days after acceptance of bid.
		t Cards to purchase goods
bmitted by:	BRENNTAG MID-SOUTH FIRM Name 324 É. LUSEN DRIVE	
_	Address GEORGETOWN KY 40327 City State & Zip Where Account (
	200 East M. Price Contr N/A N/A N/A ceived in the control of the control of the comparant deliver ave the comparant the compar	200 East Main Street, 3rd Floor, Room 338, Lexington, Kentucky 40507 Price Contract N/A Pre Bid Time: N/A Pre Bid Time: Naile Division of Central Purchasing, 200 East Main Street, Lexing Bid Time: Naile Pre Bid Time: Naile Division of Central Purchasing, 200 East Main Street, Lexing Bid Time: Naile Pre Bid Time:

	<u>AFFIDAVIT</u>				
pei	Comes the Affiant,				
1.	His/her name is <u>lavid Devine</u> and he/she is the individual submitting the bid or is the authorized representative of <u>Brenntag Mid-South</u> <u>Inc.</u>				
	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.				
ST	ATE OF Kentucky OUNTY OF Scott				
CC	OUNTY OF Scott				
by of	The foregoing instrument was subscribed, sworn to and acknowledged before me David Devine on this the 24th day January , 2016.				
	My Commission expires: March 13, 2018				
	NOTARY PUBLIC, STATE AT LARGE				
Pl	ease refer to Section II. Bid Conditions, Item "U" prior to completing this form.				

PAULA C. KEITH NOTARY PUBLIC KENTUCKY STATE AT LARGE

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.
- 8. 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 <u>any</u> and <u>all</u> 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 #1-2017 Odor Control 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 <u>XX</u> 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.
- 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 <u>special conditions</u> 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 <u>1</u> year(s) from the date of acceptance of this contract by the Lexington-Fayette Urban County Government. This agreement may be automatically extended for an additional <u>4-1</u> year(s) renewal. 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.
- B. Price Changes (Space Checked Applies)
- (XXX) 1. Prices quoted in response to the Invitation shall be firm prices for the first 365 days of the Procurement Contract. After 365 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 year. 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 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.
- F. 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 disability.

- 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, veteran status, disability and age.

Signature

13 renntag Mid. South

GENERAL PROVISIONS OF BID CONTRACT

By signing the below, bidder acknowledges that it understands and agrees with the following provisions related to its bid response and the provision of any goods or services to LFUCG upon selection by LFUCG pursuant to the bid request:

- 1. Bidder shall comply with all Federal, State & Local regulations concerning this type of service or good.
- Failure to submit ALL forms and information required by LFUCG may be grounds for disqualification.
- 3. Addenda: All addenda, if any, must be considered by the bidder in making its response, and such addenda shall be made a part of the requirements of the bid contract. Before submitting a bid response, it is incumbent upon bidder to be informed as to whether any addenda have been issued, and the failure of the bidder to cover any such addenda may result in disqualification of that response.
- 4. Bid Reservations: LFUCG reserves the right to reject any or all bid responses, to award in whole or part, and to waive minor immaterial defects in proposals. LFUCG may consider any alternative proposal that meets its basic needs.
- 5. Liability: LFUCG is not responsible for any cost incurred by bidder in the preparation of its response.
- 6. Changes/Alterations: Bidder may change or withdraw a proposal at any time prior to the opening; however, no oral modifications will be allowed. Only letters, or other formal written requests for modifications or corrections of a previously submitted proposal which is addressed in the same manner as the bid response, and received by LFUCG prior to the scheduled closing time for receipt of bids, will be accepted. The bid response when opened, will then be corrected in accordance with such written request(s), provided that the written request is contained in a sealed envelope which is plainly marked "modifications of bid response".
- 7. Clarification of Submittal: LFUCG reserves the right to obtain clarification of any point in a bid or to obtain additional information from any bidder.
- Bribery Clause: By his/her signature on its response, bidder certifies that no employee of his/hers, any affiliate or subcontractor, has bribed or attempted to bribe an officer or employee of the LFUCG.
- 9. Additional Information: While not necessary, the bidder may include any product brochures, software documentation, sample reports, or other documentation that may assist LFUCG in better understanding and evaluating the bid response. Additional documentation shall not serve as a substitute for other documentation which is required by the LFUCG to be submitted with the bid response.
- 10. Ambiguity, Conflict or other Errors: If a bidder discovers any ambiguity, conflict, discrepancy, omission or other error in the bid request of LFUCG, it shall immediately notify LFUCG of such error in writing and request modification or clarification of the document if allowable by the LFUCG.
- 11. Agreement to Bid Terms: In submitting its bid response, the bidder agrees that it has carefully examined the specifications and all provisions relating to LFUCG's bid request, including but not limited to the bid contract. By submission of its bid response, bidder states that it understands the meaning, intent and requirements of LFUCG's bid request and agrees to the same. The successful bidder shall warrant that it is familiar with and understands all provisions herein and shall warrant that it can comply with them. No additional compensation to bidder shall be authorized for services, expenses, or goods reasonably covered under these provisions that the bidder omits from its bid response.
- 12. Cancellation: LFUCG may unilaterally terminate the bid contract with the selected bidder(s) at any time, with or without cause, by providing at least thirty (30) days advance written notice unless a different advance written notice period is negotiated prior to contract approval. Payment for services or goods received prior to termination shall be made by the LFUCG provided these goods or services were provided in a manner acceptable to the LFUCG. Payment for those goods and services shall not be unreasonably withheld.

- 13. Assignment of Contract: The selected bidder(s) shall not assign or subcontract any portion of the bid contract with LFUCG without the express written consent of LFUCG. Any purported assignment or subcontract in violation hereof shall be void. It is expressly acknowledged that LFUCG shall never be required or obligated to consent to any request for assignment or subcontract; and further that such refusal to consent can be for any or no reason, fully within the sole discretion of LFUCG.
- 14. No Waiver: No failure or delay by LFUCG in exercising any right, remedy, power or privilege hereunder, nor any single or partial exercise thereof, nor the exercise of any other right, remedy, power or privilege shall operate as a waiver hereof or thereof. No failure or delay by LFUCG in exercising any right, remedy, power or privilege under or in respect of this bid proposal or bid contract shall affect the rights, remedies, powers or privileges of LFUCG hereunder or shall operate as a waiver thereof.
- 15. Authority to do Business: Each bidder must be authorized to do business under the laws of the Commonwealth of Kentucky and must be in good standing and have full legal capacity to provide the goods or services specified in the bid proposal. Each bidder must have all necessary right and lawful authority to submit the bid response and enter into the bid contract for the full term hereof including any necessary corporate or other action authorizing the bidder to submit the bid response and enter into this bid contract. If requested, the bidder will provide LFUCG with a copy of a corporate resolution authorizing this action and/or a letter from an attorney confirming that the proposer is authorized to do business in the Commonwealth of Kentucky. All bid responses must be signed by a duly authorized officer, agent or employee of the bidder.
- Governing Law: This bid request and bid contract shall be governed by and construed in accordance with the laws of the Commonwealth of Kentucky. In the event of any proceedings regarding this matter, the bidder agrees that the venue shall be the Fayette County Circuit Court or the U.S. District Court for the Eastern District of Kentucky, Lexington Division and that the bidder expressly consents to personal jurisdiction and venue in such Court for the limited and sole purpose of proceedings relating to these matters or any rights or obligations arising thereunder.
- 17. Ability to Meet Obligations: Bidder affirmatively states that there are no actions, suits or proceedings of any kind pending against bidder or, to the knowledge of the bidder, threatened against the bidder before or by any court, governmental body or agency or other tribunal or authority which would, if adversely determined, have a materially adverse effect on the authority or ability of bidder to perform its obligations under this bid response or bid contract, or which question the legality, validity or enforceability hereof or thereof.
- 18. Bidder understands and agrees that its employees, agents, or subcontractors are not employees of LFUCG for any purpose whatsoever. Bidder is an independent contractor at all times related to the bid response or bid contract.
- 19. If any term or provision of this bid contract shall be found to be illegal or unenforceable, the remainder of the contract shall remain in full force and such term or provision shall be deemed stricken.

Signature

Date

Jan. 24, 2017

RISK MANAGEMENT PROVISIONS INSURANCE AND INDEMNIFICATION

Bid #1-2017 - Odor Control Chemicals

A. 1.0 DEFINITIONS.

The CONTRACTOR understands and agrees that the Risk Management Provisions of this Contract define the responsibilities of the CONTRACTOR to the OWNER.

As used in these Risk Management Provisions, the terms "CONTRACTOR" and "OWNER" shall be defined as follows:

- a. "CONTRACTOR" means the contractor and its employees, agents, servants, owners, principals, licensees, assigns and subcontractors of any tier.
- b. "OWNER" means the Lexington-Fayette Urban County Government and its elected and appointed officials, employees, agents, boards, consultants, assigns, volunteers and successors in interest.

2.0. INDEMNIFICATION AND HOLD HARMLESS PROVISION

CONTRACTOR shall defend, indemnify, and hold harmless OWNER from and against all liability, claims, losses, actions, costs, expenses, obligations, fines, and assessments of whatever kind, including defense costs and 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, in whole or in part, from or by: (a) CONTRACTOR's negligent acts or misconduct, or errors or omissions, in connection with the performance of this contract; (b) CONTRACTOR's performance or breach of the contract provided the claim or loss is attributable to death, illness, personal injury, or property loss or damage or loss of use, and not caused by a negligent act or omission, or the willful misconduct of the OWNER; or (c) the condition of any premises, equipment or other property being used or operated by the CONTRACTOR in connection with the performance of this contract. In the event OWNER is alleged to be liable based upon the actions or inactions of CONTRACTOR, CONTRACTOR shall defend such allegations and shall bear all costs, fees and expenses of such defense, including but not limited to, all attorneys' fees and expenses. court costs, and expert witness fees and expenses, using attorneys approved in writing by OWNER, which approval shall not be unreasonably withheld. This Indemnification and Hold Harmless Provision shall in no way be limited by any financial responsibility or insurance requirements, and shall survive the termination of this contract.

3.0 FINANCIAL RESPONSIBILITY

The CONTRACTOR 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 Indemnity Agreement and other provisions of this Contract.

4.0 INSURANCE REQUIREMENTS

BIDDERS' ATTENTION IS DIRECTED TO THE INSURANCE REQUIREMENTS BELOW, AS BIDDERS MUST CONFER WITH THEIR RESPECTIVE INSURANCE AGENTS, BROKERS, OR CARRIERS TO DETERMINE IN ADVANCE OF BID SUBMISSION THE AVAILABILITY OF THE INSURANCE COVERAGES AND ENDORSEMENTS REQUIRED HEREIN. IF AN APPARENT LOW BIDDER FAILS TO COMPLY STRICTLY WITH THE INSURANCE REQUIREMENTS BELOW, THAT BIDDER MAY BE DISQUALIFIED FROM AWARD OF THE CONTRACT.

4.1 Required Insurance Coverage

CONTRACTOR 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 OWNER 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 CONTRACTOR. The cost of such insurance shall be included in any bid:

Coverage	<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. OWNER shall be named as an additional insured in the General Liability Policy.
- b. The General Liability Policy shall be primary to any insurance or self-insurance retained by OWNER.
- c. The General Liability Policy shall include a Pollution Liability endorsement.
- d. OWNER 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 OWNER and shall be in a form acceptable to OWNER. 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.
- 4.2. Additional insurance coverage and amounts required, if any, are stated below:

The General Liability Policy shall include a Products Liability endorsement in an amount of at least \$2,000,000.00 or the CONTRACTOR will otherwise provide products liability coverage satisfactory to the OWNER. The above requirements may be satisfied by submitting a current copy the manufacturers' Certificate(s) of Insurance in at least the above amounts of coverage if the CONTRACTOR is not the manufacturer of the product. The manufacturer must maintain the required coverage for the useful lifetime of the product(s).

4.3. 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.

4.4. Deductibles and Self-Insured Programs

IF CONTRACTOR INTENDS TO SUBMIT SELF-INSURANCE PLAN FOR BID, THIS TO LEXINGTON-FAYETTE URBAN COUNTY FORWARDED BE GOVERNMENT, DIVISION OF RISK MANAGEMENT, 200 EAST MAIN STREET, LEXINGTON, KENTUCKY 40507 NO LATER THAN A MINIMUM OF FIVE (5) WORKING DAYS PRIOR TO BID OPENING 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 CONTRACTOR'S financial capacity to respond to claims. Any such programs or retentions must provide OWNER with at least the same protection from liability and defense of suits as would be afforded by first-dollar insurance coverage. If CONTRACTOR satisfies any portion of the insurance requirements through deductibles, self-insurance programs, or self-insured retentions, CONTRACTOR 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. CONTRACTOR'S 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. CONTRACTOR'S Risk Management Manual or a description of CONTRACTOR'S self-insurance and risk management program.
- e. A claim loss run summary for the previous five (5) years.
- Self-Insured Associations will be considered.

4.5. Verification of Coverage

Prior to award of bid, CONTRACTOR agrees to furnish OWNER with all applicable Certificates of Insurance signed by a person authorized by the insurer to bind coverage on its behalf. If requested, CONTRACTOR shall provide OWNER copies of all insurance policies, including all endorsements.

4.6. Right to Review, Audit and Inspect

CONTRACTOR understands and agrees that OWNER may review, audit and inspect any and all of CONTRACTOR'S records and operations to insure compliance with these Insurance Requirements.

5.0 DEFINITION OF DEFAULT

CONTRACTOR understands and agrees that the failure to comply with any of these insurance, safety, or loss control provisions shall constitute default under this Contract. CONTRACTOR also agrees that OWNER 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 CONTRACTOR for any such insurance premiums purchased, or suspending or terminating this Contract.

LFUCG Division of Water Quality

ODOR CONTROL CHEMICALS FOR SCRUBBER SYSTEMS

1.0 GENERAL REQUIREMENTS

Under this contract, the successful supplier shall furnish and deliver odor control chemicals for scrubber systems. The chemicals shall be solutions of caustic soda liquid and sodium hypochlorite as specified in Section 2.0.

2.0 SCOPE

The successful bidder is to furnish the following liquid products:

- Sodium Hypochlorite 12.5% by weight (NaOCL in water)
- Caustic Soda Liquid/Sodium Hydroxide 25% by weight (NaOH)
- Caustic Soda Liquid/Sodium Hydroxide 50% by weight (NaOH)

The cost submitted shall include all cost, including freight and transportation charge to various pumping stations and/or treatment plants operated by the Lexington Fayette Urban County Government for an initial period of two years, beginning two weeks after the date bid is accepted.

Material Safety Data Sheet shall be included with Bid for material to be furnished.

3.0 GENERAL CONDITIONS

The successful bidder is to furnish material under this specification for the period as specified in Section 2.0.

4.0 **DETAILED SPECIFICATIONS**

By submission of their Bid, the Bidder guarantees that the product offered will meet the quality standards as specified in this specification for the term of the contract. The Lexington Fayette Urban County Government reserves the right to conduct periodic checks on the quality of material furnished under this contract or to have the product's quality checked by outside sources to determine if the material furnished is in compliance with these specifications. Failure of the supplier's to meet the specified standards of quality will result in the termination of the contract.

The Bidder shall submit, with their Bid, written standard operating procedures describing the transfer of the material from the truck into the storage tank. The procedures should outline safety precautions followed in order to eliminate spillage of material during the delivery process.

Brenntag Mid-South Equipment for Delivery of Odor Control Chemicals

Sodium Hydroxide 25% & 50% Sodium Hypochlorite 12.5%

Deliveries will made with 2,000 Gallon Mini-bulk tanktrucks in quantities of 500 gallons to 2,000 gallons.

These mini-tanktrucks will allow for easy and safe entry and unloading at treatment facilities.

The trucks are equiped with a PTO pump and compatible hose for the materials required.

Hookups will be hard quick couple connects.

All delivery drivers will have current CDL with Hazmat and Tanker endorsements and will be trained and experienced in the delivery of the required material using this equipment.

Brenntag Mid-South drivers are familiar with the LFUCG locations and with deliveries of the required materials as Brenntag has maintained serviced these requirements for the past 7 years.

BRENNTAG MID-SOUTH, INC. PROCESS DESCRIPTION Branch 40

Page 1 of 3

PROCESS DESCRIPTION:

Unloading Tank Trucks/Trailers Into Customer

Storage Tanks.

DATE:

September 10, 2008

SCOPE

Process Description to follow when unloading tank trucks/trailers containing Corrosive and non-hazardous liquids into Customer storage tanks.

DEFINITION

This has been prepared to insure that Tank Truck/Trailers are unloaded into Customer storage tanks according to company guidelines established to insure safety and quality standards are met.

DESCRIPTION

- 1. Check bill of lading and verify proper material is being delivered.
- 2. Obtain scale ticket from customer if necessary.
- 3. Weigh tank truck/trailer and position at unloading area and chock wheels.

Caution: Insure proper protective equipment is worn to comply with Brenntag Mid-South, Inc. requirements and any additional Customer PPE requirements.

- 4. Contact appropriate person at customer location to verify proper unloading line and storage tank to connect to for unloading and that the tank will hold the amount of material being delivered.
- Insure all non-essential personnel are a minimum of 25 feet away from unloading area.
- Connect transfer hose to customer piping.
- 7. Fill out the required area of the Tanker Unloading Form (use form from operations procedure 5.1) and have the Customer Sign for authorization to unload.

Issue Date: November 30, 2001

Revision Date:

Note: Unloading can be accomplished by air padding using tractor supplied air, pump or customer supplied air. The tractor supplied air or pump should be used when possible. When using the pump, insure the truck/trailer is vented to prevent a vacuum on the truck/trailer due to the product leaving the tank.

CAUTION: When using customer-supplied air <u>DO NOT</u> pressurize the truck/trailer until it is verified that the air is regulated at a MAXIMUM of 30 PSIG pressure.

- 8. With the air supply valve on the truck/trailer closed, connect the air line to the truck/trailer.
- 9. Open product valve slowly and check for leaks. (Repair if needed)

CAUTION: Do not attempt to repair leaks while under pressure. Close air supply valve and product valve. Clear line of product and pressure before disconnecting. Repair leak with new gasket, hose, fitting etc. (Never use shims, double gaskets or other unauthorized methods to repair or stop leaks.)

- 10. If no leaks were discovered, open customer valve and continue to monitor and unload.
- 11. Slowly open the air supply valve on the truck/trailer and monitor pressure.
- 12. Upon completion of unloading, turn off air supply or pump then close the product valve on the trailer and purge product hose, then close the customer valve and release the pressure and drain transfer hose.
- 13. Disconnect airline and release pressure on tank truck/trailer. (If required.)
- 14. Disconnect transfer hose from product piping and tank truck/trailer.
- 15. Weigh tank truck/trailer.
- 16. Complete Tanker Unloading Form and have customer sign the Bill of Lading and give customer their copy.

Issue Date: November 30, 2001

Revision Date:

CONSEQUENCE OF DEVIATION

Corrosive Liquids if not handled properly and safely, could result in a serious incident that could affect our employees, the general public, and the environment. Failure to follow this procedure when unloading product could cause a release of liquid.

EMERGENCY SHUTDOWN

In the event of an emergency shutdown, follow the branch's *Emergency Contingency Plan*.

TEMPORARY OPERATIONS

Brenntag will not operate under temporary operations.

AREAS THAT DO NOT APPLY TO THIS PROCEDURE

- 1. Initial Startup
- 2. Emergency Operations

Written By: Preston Porter

Approved By: Chris Dawson

Issue Date: November 30, 2001

Revision Date:

BRENNTAG MID-SOUTH MINI BULK TANKER UNLOADING REPORT

Dispatcher or designee must attach blank form to delivery ticket for bulk shipments Section I: Verify General Delivery Information Prior to Departure _____ TANKER#:_____ UN #:_____ CUSTOMER/LOCATION: PRODUCT: SHIPPER #: YES NO UN# PLACARD ON TANKER AGREES WITH DOT SHIPPING NAME ON SHIPPER If No., STOP and REPORT ANY DISCREPANCIES TO DISPATCHER and/or MANAGEMENT PERSONNEL YES____ NO____ ADDITIONAL REQUIREMENTS IN HEADER AND ITEM NOTES HAVE BEEN READ NOTE: FOR MULTIPLE DELIVERIES USE SEPARATE FORM Section II: Site Assessment YES NO SAFETY SHOWER OR WATER AVAILABLE YES___ NO___ UNLOADING LINE PROPERLY LABELED FOR PRODUCT BEING UNLOADED YES_____ NO____ STORAGE TANK(S) PROPERLY LABELED FOR PRODUCT BEING UNLOADED YES NO HOSE RUNS DO NOT EXCEED 150', RUN THRU AREAS WHERE THERE IS PEDESTRIAN OR VEHICLE TRAFFIC OR THRU BUILDINGS WHERE PEDESTRIANS WORK YES___ NO HOSE CONNECTED TO RIDGED UNLOADING LINE OR SECURED SAFELY NOTE: IF ANY OF THE ABOVE IS ANSWERED NO. DRIVER MUST CONTACT BRENNTAG MID-SOUTH MANAGEMENT PRIOR TO UNLOADING. YES NO STORAGE TANK LEVEL WITHIN VIEW FROM UNLOADING AREA (see note below) NOTE: IF NO, CUSTOMER ASSISTANCE REQUIRED FOR UNLOADING Section III: Customer Authorization To Unload YES NO CAPACITY TO ACCEPT LOAD YES NO TANKER CONNECTED TO PROPER PRODUCT UNLOADING LINE CUSTOMER HOSES USED: YES NO NOTE: IF YES SIGNATURE BELOW DENOTES THAT HOSES ARE IN GOOD CONDITION AND COMPATIBLE WITH PRODUCT BEING UNLOADED TITLE: DATE: TIME: BY:__ NOTE: SIGNATURE MUST BE OBTAINED AFTER LINE CONNECTION HAS BEEN MADE Section IV: Unloading Information (use back side if necessary) GRAVITY: ____ TRUCK AIR: TRUCK PUMP: CUSTOMER AIR/PUMP: YES_____NO____TANKER COMPLETELY EMPTIED. YES____NO___TANKER PRESSURE RELIEVED ANY SPILLS OR INCIDENTS: YES NO ; IF Yes, please record comments and report any problems Comments: Section V: Product Delivery Information QUANTITY DELIVERED: _____ LBS. OR GALLONS Comments: Retain completed form with Delivery Ticket Revision Date: 3/25/08 CARRIER: _____ DRIVER SIGNATURE: ______

REVIEWED BY: (initials)

DRIVER'S TRAINING MANUAL

ISSUED: 05/01/00

APPROVED BY: David Garner

REVISED: 09/20/02

CONTACT: Fred Nichols

Unloading Chemicals Into Bulk at Customer Site

Section: 5.9

Delivery To Customer

Brenntag transports and delivers many types of chemical products every day into bulk storage at customer sites. Mishandling could easily result in environmental damage, serious personal injury or even death. It is imperative that all drivers involved in this process be familiar with the hazards and procedures of handling all types of chemical and follow all safety precautions. Only drivers who have received training in the properties, characteristics, safety and first aid requirements for each chemical product may unload these products. The customer's plant operations procedures may take precedence over this general training.

Drivers must first be trained on <u>Operations Procedure No. 5.1, Tank Trailer Unloading</u>, which covers unloading tank trailers. Also see <u>Section 7.2</u> of this manual when unloading flammable or combustible materials. Drivers are to use the following guidelines when unloading at a customer's site.

- 1. Complete Section II and III, of the <u>BRENNTAG MID-SOUTH TANKER UNLOADING REPORT</u>.
- 2. Drivers must be in attendance throughout the unloading process unless relieved by the customer's employees.
- 3. Tank trailer is to be chocked on both sides of at least one tire during the unloading process.
- 4. Driver must wear the correct personal protective equipment.
- 5. Place drip pan or bucket under transfer hose connections, if appropriate.
- 6. After transfer of product into customer storage is complete. Driver will close all appropriate valves and turn off appropriate pump.
- 7. Disconnect transfer product hose from tank trailer and drain remaining product into drip pan bucket or where customer wants you to. Return product transfer hoses to hose racks.
- 8. Secure dome lids and all valves.
- 9. Complete Section IV of the <u>BRENNTAG MID-SOUTH TANKER UNLOADING REPORT</u> and any other required paperwork.
- 10. Complete Section V of the <u>BRENNTAG MID-SOUTH TANKER UNLOADING REPORT</u> after arriving back at your plant site. Attach completed form to delivery ticket.
- 11. Completed form should be reviewed by and signed or initialed by Dispatcher, Customer Service Manager or designee.

Brenntag has a number of trucks equipped with air blowers and/or product pump. These

units are used to unload different chemicals at the customer location. In order to properly maintain and operate this equipment, <u>Procedure No. 5.14</u>, <u>Tank Trailer Unloading With J 100 Compressor & Product Pumps</u>, found in the Operations Procedure Manual shall be used to train drivers.

DRIVER'S TRAINING MANUAL

ISSUED: 05/01/00 APPROVED BY: David Garner

REVISED:

CONTACT: Fred Nichols

Loading & Unloading Tank Trailers

Section: 5.8 **Delivery To Customer**

Brenntag Mid-South, Inc. unloads various products from tank trailers into bulk storage tanks. Mishandling could easily result in environmental damage, serious personal injury or even death. It is imperative that our drivers involved in this process be familiar with the hazards and procedures of handling all types of products that we unload from tank trailers and that they follow all safety precautions. Only drivers who have received training in chemical properties, characteristics, health and safety for each product may proceed with unloading of tank trailers.

Before any driver may unload or pull a tank trailer they must receive training on the following:

- 1. 49 CFR 177.834 (1)(2,3,4,5), "Guidelines Loading & Unloading"
- 49 CFR 173.30, "Loading & Unloading of Transport Vehicle"
- 3. 49 CFR 177.816, "Driver Training"
- 4. 49 CFR 172.704, "Training for HAZMAT"
- 5. 49 CFR 177.834, "General Requirements"
- 6. Operations Procedures Manual:
 - a. Procedure No. 5.1, "Tank Trailer Unloading"
 - b. Procedures No. 5.2, "Shipment of Pressurized Portable Tank/Tank Trailers"
 - c. Procedure No. 5.14, "Tank Trailer Unloading with J100 Compressor & Product Pump"
 - d. Procedure No. 9.2, "Unloading Bulk Shipment"

units are used to unload different chemicals at the customer location. In order to properly maintain and operate this equipment, <u>Procedure No. 5.14</u>, <u>Tank Trailer Unloading With J 100 Compressor & Product Pumps</u>, found in the Operations Procedure Manual shall be used to train drivers.

DRIVER'S TRAINING MANUAL

ISSUED: 05/01/00

APPROVED BY: David Garner

REVISED:

CONTACT: Fred Nichols

Cargo Tank Attendance

Section: 5.10 Delivery To Customer

Each person loading or unloading a tank trailer (cargo tank) must know and obey the rules of 49 CFR, Part 177.834.

- 1. Loading A cargo tank must be attended by a qualified person at all items when it is being loaded. The person who is responsible for loading the cargo tank is also responsible for ensuring that it is so attended.
- 2. Unloading A motor carrier who transports hazardous materials by a cargo tank must ensure that the cargo tank is attended by a qualified person at all times during unloading. However, the carrier's obligation to ensure attendance during unloading ceases when:
 - a. The carrier's obligation for transporting the material is fulfilled.
 - b. The cargo tank has been placed upon the consignees' premises.
 - c. The motor power has been removed from the cargo tank and removed from the premises.

A person "attends" the loading or unloading of a cargo tank if, throughout the process, he/she is awake and has unobstructed view of the cargo tank, and is within 7.62 meters (25 feet) of the cargo tank.

A person is "qualified" if he/she has been made aware of the nature of the hazardous material which is to be loaded or unloaded, he/she has been instructed on the procedures to be followed in emergencies, he/she is authorized to move the cargo tank, and he/she has the means to do so.

A delivery hose, when attached to the cargo tank, is considered a part of the vehicle.

Driver who is going to pull a cargo tank trailer must receive training on the cargo tank attendance requirement from 49 CFR, part 177.834. Their training must take place before he is allowed to pull a cargo tank trailer.

BRENNTAG

SAFETY DATA SHEET

1. Identification

Product identifier

SODIUM HYPOCHLORITE 12.5% NSF

Other means of identification

None.

Recommended use

ALL PROPER AND LEGAL PURPOSES

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name

Brenntag Mid-South, Inc.

Address

1405 Highway 136, West Henderson, KY 42420

Telephone

270-830-1222

E-mail

Not available.

Emergency phone number

800-424-9300

CHEMTREC

2. Hazard(s) identification

Physical hazards

Not classified.

Health hazards

Skin corrosion/irritation

Category 1

Serious eye damage/eye irritation

Category 1

Environmental hazards

Not classified.

OSHA defined hazards

Not classified.

Label elements



Signal word

Danger

Hazard statement

Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention

Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Rinse mouth, Do NOT induce vomiting, If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower, If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison

center/doctor. Wash contaminated clothing before reuse.

Storage

Store locked up

Disposal

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

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information

None.

841174 Version #: 14 Revision date: 11-28-2016 Issue date: 11-11-2016

3. Composition/information on ingredients

Mixtures

Chemical name C	common name and synonyms	CAS number	%
HYPOCHLOROUS ACID, SODIUM SALT (1:1)		7681-52-9	12.5
SODIUM HYDROXIDE (NA(OH))		1310-73-2	0.7
Other components below reportable lev	vels		86.8

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash

contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If

vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Foam. Powder. Carbon dioxide (CO2).

Unsuitable extinguishing media

Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from

During fire, gases hazardous to health may be formed.

the chemical Special protective equipment

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

and precautions for firefighters

Move containers from fire area if you can do so without risk.

Fire fighting equipment/instructions

Specific methods General fire hazards Use slandard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up Use water spray to reduce vapors or divert vapor cloud drift. Prevent entry into waterways, sewer, basements or confined areas.

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US, OSHA Table Z-1 Limits for Air Co	ontaminants (29 CFR 1910.1000	1
--------------------------------------	-------------------------------	---

Components	Type	Value	
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m3	
US. ACGIH Threshold Limit Values Components	s Type	Value	_
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3	
US. NIOSH: Pocket Guide to Chem	nical Hazards		
Components	Туре	Value	
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3	_
US. Workplace Environmental Exp	osure Level (WEEL) Guides		
Components	Type	Value	
HYPOCHLOROUS ACID,	STEL	2 mg/m3	

SODIUM SALT (1:1) (CAS

Biological limit values

7681-52-9)

No biological exposure limits noted for the ingredient(s).

Appropriate engineering

controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Liquid.

Color

CLEAR PALE YELLOW

Odor

CHLORINE

Odor threshold

Not available.

11.5 - 13.5

Melting point/freezing point

-3 °F (-19.44 °C)

Initial boiling point and boiling

230.55 °F (110.3 °C) estimated

range

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Material name: SODIUM HYPOCHLORITE 12.5% NSF

SDS US

Upper/lower flammability or explosive limits

Flammability limit - lower

(%)

Not available.

Flammability limit - upper

Not available.

Explosive limit - lower (%) Not available. Explosive limit - upper (%) Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

Not available.

Partition coefficient

Not available.

(n-octanol/water) Auto-ignition temperature

Not available.

Decomposition temperature

Not available. Not available.

Other information

Viscosity

Density

10.00 lbs/gal

Explosive properties

Not explosive. Not oxidizing

Oxidizing properties Percent volatile

86.8 % estimated

Specific gravity

1.2

10. Stability and reactivity

Reactivity

Reacts violently with strong acids. This product may react with oxidizing agents.

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

Conditions to avoid

Contact with incompatible materials. Do not mix with other chemicals.

Incompatible materials

Acids. Oxidizing agents.

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation

May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact

Causes severe skin burns. Causes serious eye damage.

Eye contact Ingestion

Causes digestive tract burns.

Symptoms related to the

physical, chemical and

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

toxicological characteristics blindness could result.

Information on toxicological effects

Acute toxicity

Not available.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye

Causes serious eye damage.

irritation

Respiratory or skin sensitization

Respiratory sensitization

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ

toxicity - repeated

exposure

Not classified.

Aspiration hazard

Not an aspiration hazard.

Chronic effects

Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Test Results Components **Species** HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 76B1-52-9)

Aquatic

LC50 Fish

Chinook salmon (Oncorhynchus

0.038 - 0.065 mg/l, 96 hours

tshawytscha)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Aquatic

Crustacea

EC50

Water flea (Ceriodaphnia dubia)

34.59 - 47.13 mg/l, 48 hours

Fish

LC50

Western mosquitofish (Gambusia affinis) 125 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential

Mobility in soil

No data available. No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

TOO

UN number

UN1791

UN proper shipping name

HYPOCHLORITE SOLUTIONS MARINE POLLUTANT (SODIUM HYPOCHLORITE) RQ

Transport hazard class(es)

8

Subsidiary risk

Packing group III

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ERG number

154

DOT information on packaging may be different from that listed.

DOT



General information

IMDG Regulated Marine Pollutant.

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication

Standard, 29 CFR 1910.1200.

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS

7681-52-9)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Listed.

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

(a))

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Material name: SODIUM HYPOCHLORITE 12.5% NSF

sos us 6/7

US. Massachusetts RTK - Substance List

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Rhode Island RTK

HYPOCHLOROUS ACID, SODIUM SALT (1:1) (CAS 7681-52-9) SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing

16. Other information, including date of preparation or last revision

Issue date

11-11-2016

Revision date

11-28-2016

Version#

14

HMIS® ratings

Health: 3

Flammability: 0

Physical hazard: 0

NFPA ratings

Health: 3 Flammability: 0 Instability: 0

Disclaimer

While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of Brenntag's terms and conditions of sale.

Material name: SODIUM HYPOCHLORITE 12.5% NSF



SAFETY DATA SHEET

1. Identification

Product identifier

SODIUM HYDROXIDE 25% DIA

Other means of identification

None,

Recommended use

ALL PROPER AND LEGAL PURPOSES

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name

Brenntag Mid-South, Inc.

Address

1405 Highway 136, West Henderson, KY 42420

Telephone

270-830-1222

E-mail

Not available.

Emergency phone number

800-424-9300

CHEMTREC

2. Hazard(s) identification

Physical hazards

Not classified.

Health hazards

Skin corrosion/irritation

Calegory 1A

Serious eye damage/eye irritation

Category 1

Environmental hazards

Not classified.

OSHA defined hazards

Not classified.

Label elements



Signal word

Danger

Hazard statement

Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention

Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective

clothing/eye protection/face protection.

Response

If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cauliously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison

center/doctor. Wash contaminated clothing before reuse.

Storage

Store locked up.

Disposal

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

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SODIUM HYDROXIDE (NA	(OH))	1310-73-2	25
Other components below reportable levels		-	75

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Material name: SODIUM HYDROXIDE 25% DIA

SDS US

4. First-aid measures

Inhalation

Move to fresh air. Call a physician if symptoms develop or persist.

Skin contact

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash

contaminated clothing before reuse.

Eye contact

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Ingestion

Call a physician or poison control center immediately. Rinse mouth, Do not induce vomiting. If

vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important symptoms/effects, acute and

symptoms/effects, acute an delayed

Indication of immediate medical attention and special treatment needed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

During fire, gases hazardous to health may be formed.

Specific hazards arising from the chemical

Special protective equipment

and precautions for firefighters

and precautions for firefight Fire fighting equipment/instructions

Specific methods
General fire hazards

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Move containers from fire area if you can do so without risk.

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills; Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US, OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Туре	Value	
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	PEL	2 mg/m3	
US, ACGIH Threshold Limit Value:	S		
Components	Туре	Value	
SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)	Ceiling	2 mg/m3	
US. NIOSH: Pocket Guide to Chen	nical Hazards		
Components	Туре	Value	
SODIUM HYDROXIDE	Ceiling	2 mg/m3	-

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

No biological exposure limits noted for the ingredient(s).

Biological limit values

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state Form

Liquid. Liquid.

Color

CLEAR TO HAZY

Odor

ODORLESS

Odor threshold

Not available.

рН

Not available.

Melting point/freezing point

-1 °F (-18.33 °C)

Initial boiling point and boiling

791.6 °F (422 °C) estimated

range

Flash point

Not available.

Evaporation rate

Not available.

Flammability (solid, gas)

Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

(%)

Material name: SODIUM HYDROXIDE 25% DIA

SDS US

Explosive limit - lower (%) Not available.

Explosive limit - upper (%) Not available.

Vapor pressure

Not available.

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

Not available.

Partition coefficient

Not available.

(n-octanol/water)

Not available.

Auto-ignition temperature **Decomposition temperature**

Not available.

Viscosity

Not available

Other information

Density **Explosive properties** 10.66 lbs/gal Not explosive.

Oxidizing properties

Not exidizing.

Percent volatile

75 % estimated

Specific gravity

1.28

10. Stability and reactivity

Reactivity

The product is stable and non-reactive under normal conditions of use, storage and transport.

Chemical stability

Material is stable under normal conditions. Hazardous polymerization does not occur.

Possibility of hazardous

reactions

Contact with incompatible materials

Conditions to avoid

Strong acids.

Incompatible materials

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation

May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact

Causes severe skin burns. Causes serious eye damage.

Eye contact Ingestion

Causes digestive tract burns.

Symptoms related to the

physical, chemical and toxicological

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

characteristics

Information on toxicological effects

Acute toxicity

Not available.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye

irritation

Causes serious eye damage

Respiratory or skin sensitization

Respiratory sensitization

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensilization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

Material name: SODIUM HYDROXIDE 25% DIA

SDS US

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure

Not classified.

Specific target organ

toxicity - repeated

exposure

Aspiration hazard

Not an aspiration hazard.

Not classified.

Chronic effects

Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components Species SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Aquatic

Crustacea

EC50

Water flea (Ceriodaphnia dubia)

34.59 - 47.13 mg/l, 48 hours

Test Results

Fish

LC50

Western mosquitofish (Gambusia affinis) 125 mg/l, 96 hours

* Estimates for product may be based on additional component data not shown.

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential Mobility in soil

No data available. No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of

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

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

UN number

UN1824

UN proper shipping name

SODIUM HYDROXIDE SOLUTION

Transport hazard class(es)

Class

Я

Subsidiary risk Packing group

11

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ERG number

154

DOT information on packaging may be different from that listed.

Material name: SODIUM HYDROXIDE 25% DIA 823130 Version #: 10 Revision date: 08-30-2016 Issue date: 04-10-2015



15. Regulatory information

US federal regulations

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

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US, California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd. (a))

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US, Massachusetts RTK - Substance List

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US, Rhode Island RTK

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s)

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

 Issue date
 04-10-2015

 Revision date
 08-30-2016

Version # 10

HMIS® ratings Health: 3

Flammability: 0 Physical hazard: 0

NFPA ratings Health: 3

Flammability: 0 Instability: 1

Disclaimer While Brenntag believes the information contained herein to be accurate, Brenntag makes no

representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of

Brenntag's terms and conditions of sale.

Material name: SODIUM HYDROXIDE 25% DIA

BRENNTAG

SAFETY DATA SHEET

1. Identification

Product identifier

SODIUM HYDROXIDE 50% DIA

Other means of identification

None.

Recommended use

ALL PROPER AND LEGAL PURPOSES

Recommended restrictions

None known.

Manufacturer/Importer/Supplier/Distributor information

Manufacturer

Company name

Brenntag Mid-South, Inc.

Address

1405 Highway 136, Wesl Henderson, KY 42420

Telephone

270-830-1222

E-mail

Not available.

Emergency phone number

800-424-9300

CHEMTREC

2. Hazard(s) identification

Physical hazards

Not classified.

Health hazards

Skin corrosion/irritation

Category 1

Serious eye damage/eye irritation

Category 1

Environmental hazards

Not classified.

OSHA defined hazards

Not classified.

Label elements



Signal word

Danger

Hazard statement

Causes severe skin burns and eye damage. Causes serious eye damage.

Precautionary statement

Prevention

Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.

Response

If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison

center/doctor. Wash contaminated clothing before reuse.

Storage

Store locked up

Disposal

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

Hazard(s) not otherwise

classified (HNOC)

None known.

Supplemental information

None.

3. Composition/information on ingredients

Mixtures

Chemical name	Common name and synonyms	CAS number	%
SODIUM HYDROXIDE (NA(C	PH))	1310-73-2	50
Other components below repo	ortable levels		50

^{*}Designates that a specific chemical identity and/or percentage of composition has been withheld as a trade secret.

Material name: SODIUM HYDROXIDE 50% DIA

505 US

4. First-aid measures

Inhalation Skin contact Move to fresh air. Call a physician if symptoms develop or persist.

Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash

contaminated clothing before reuse.

Eye contact

Ingestion

Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If

vomiting occurs, keep head low so that stomach content doesn't get into the lungs.

Most important

symptoms/effects, acute and delayed

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Indication of immediate medical attention and special treatment needed

Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately, While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim under observation. Symptoms may be delayed.

General information

Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.

5. Fire-fighting measures

Suitable extinguishing media

Unsuitable extinguishing media

Specific hazards arising from the chemical

Special protective equipment and precautions for firefighters

Fire fighting equipment/instructions

Specific methods
General fire hazards

Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).

Do not use water jet as an extinguisher, as this will spread the fire.

During fire, gases hazardous to health may be formed.

Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

Move containers from fire area if you can do so without risk.

Use standard firefighting procedures and consider the hazards of other involved materials.

No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures

Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.

Methods and materials for containment and cleaning up

Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.

Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.

Environmental precautions

7. Handling and storage

Precautions for safe handling

Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Provide adequate ventilation. Avoid prolonged exposure. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components Type Value SODIUM HYDROXIDE PEL 2 mg/m3 (NA(OH)) (CAS 1310-73-2) **US. ACGIH Threshold Limit Values** Value Components Type SODIUM HYDROXIDE Ceiling 2 mg/m3 (NA(OH)) (CAS 1310-73-2) US. NIOSH: Pocket Guide to Chemical Hazards Value Components

SODIUM HYDROXIDE

(NA(OH)) (CAS 1310-73-2)

Ceiling 2 mg/m3

Biological limit values

No biological exposure limits noted for the ingredient(s).

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.

Individual protection measures, such as personal protective equipment

The following are recommendations for Personnel Protective Equipment (PPE). The employer/user of this product must perform a Hazard Assessment of the workplace according to OSHA regulations 29 CFR 1910.132 to determine the appropriate PPE for use while performing any task involving potential exposure to this product.

Eye/face protection

Wear safety glasses with side shields (or goggles) and a face shield.

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Suitable gloves can be recommended by the glove

supplier.

Other

Wear appropriate chemical resistant clothing.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective

equipment to remove contaminants.

9. Physical and chemical properties

Appearance

Physical state

Liquid.

Form

Liquid.

Color

Colorless to slightly colored

Odor

ODORLESS

Odor threshold

Not available.

pН

14

Melting point/freezing point

Flammability (solid, gas)

56 °F (13.33 °C)

Initial boiling point and boiling

1371.2 °F (744 °C) estimated

range

Flash point **Evaporation rate** Not available

Not available. Not applicable.

Upper/lower flammability or explosive limits

Flammability limit - lower

Not available.

(%)

Flammability limit - upper

Not available.

(%)

Material name: SODIUM HYDROXIDE 50% DIA

Explosive limit - lower (%)

Not available

Explosive limit - upper (%)

Not available

Vapor pressure

Not available

Vapor density

Not available.

Relative density

Not available.

Solubility(ies)

Solubility (water)

Not available.

Partition coefficient

Not available.

(n-octanol/water)

Auto-ignition temperature

Not available.

Decomposition temperature

Not available.

Viscosity

Not available.

Other information

Density

12.76 lbs/gal

Explosive properties

Not explosive.

Oxidizing properties

Not oxidizing

Percent volatile

50 % estimated

Specific gravity

1.53

10. Stability and reactivity

Reactivity

Reacts violently with strong acids. This product may react with oxidizing agents.

Chemical stability

Material is stable under normal conditions.

Possibility of hazardous

reactions

Hazardous polymerization does not occur.

Conditions to avoid

Contact with incompatible materials. Do not mix with other chemicals.

Incompatible materials

Strong acids, Acids, Oxidizing agents,

Hazardous decomposition

products

No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation

May cause irritation to the respiratory system. Prolonged inhalation may be harmful.

Skin contact Eye contact

Causes severe skin burns. Causes serious eye damage.

Ingestion

Causes digestive tract burns.

Symptoms related to the physical, chemical and

toxicological

Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including

characteristics

blindness could result.

Information on toxicological effects

Acute toxicity

Not available.

Skin corrosion/irritation

Causes severe skin burns and eye damage.

Serious eye damage/eye

Causes serious eye damage,

irritation

Respiratory or skin sensitization

Respiratory sensitization

Not a respiratory sensitizer.

Skin sensitization

This product is not expected to cause skin sensitization.

Germ cell mutagenicity

No data available to indicate product or any components present at greater than 0.1% are

mutagenic or genotoxic.

Carcinogenicity

This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

IARC Monographs. Overall Evaluation of Carcinogenicity

Not listed.

Material name: SODIUM HYDROXIDE 50% DIA

666745 Version #: 08 Revision date: 01-18-2017 Issue date: 05-04-2016

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1060)

Not regulated.

US. National Toxicology Program (NTP) Report on Carcinogens

Not listed.

Reproductive toxicity

This product is not expected to cause reproductive or developmental effects.

Specific target organ toxicity - single exposure Not classified.

Specific target organ

toxicity - repeated

Not classified.

exposure

Aspiration hazard

Not an aspiration hazard.

Chronic effects

Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Components **Species** SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Aquatic

Crustacea

EC50

Water flea (Ceriodaphnia dubia)

34.59 - 47.13 mg/l. 48 hours

Test Results

Fish

LC50

Western mosquitofish (Gambusia affinis) 125 mg/l, 96 hours

Persistence and degradability

No data is available on the degradability of this product.

Bioaccumulative potential Mobility in soil

No data available. No data available.

Other adverse effects

No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.

Local disposal regulations

Dispose in accordance with all applicable regulations.

Hazardous waste code

The waste code should be assigned in discussion between the user, the producer and the waste

disposal company.

Waste from residues / unused

products

Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see:

Disposal instructions).

Contaminated packaging

Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or

disposal.

14. Transport information

DOT

UN number

UN1824

UN proper shipping name

SODIUM HYDROXIDE SOLUTION

Transport hazard class(es)

Class

8

Subsidiary risk Packing group

П

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

ERG number

DOT information on packaging may be different from that listed.

IMDG

UN number

UN1824

UN proper shipping name

SODIUM HYDROXIDE SOLUTION (SODIUM HYDROXIDE (NA(OH)))

Transport hazard class(es)

Class

Material name: SODIUM HYDROXIDE 50% DIA

SDS US 5/8

666745 Version #: 08 Revision date; 01-18-2017 Issue date; 05-04-2016

^{*} Estimates for product may be based on additional component data not shown.

Subsidiary risk

Packing group

11

Environmental hazards

Marine pollutant

No.

EmS

F-A. S-B

Special precautions for user Read safety instructions, SDS and emergency procedures before handling.

DOT



IMDG



15. Regulatory information

US federal regulations

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

TSCA Section 12(b) Export Notification (40 CFR 707, Subpt. D)

Not regulated.

CERCLA Hazardous Substance List (40 CFR 302.4)

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

Listed.

SARA 304 Emergency release notification

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1060)

Not regulated.

Superfund Amendments and Reauthorization Act of 1986 (SARA)

Hazard categories

Immediate Hazard - Yes Delayed Hazard - No Fire Hazard - No Pressure Hazard - No Reactivity Hazard - No

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous

Yes

chemical

SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

Clean Air Act (CAA) Section 112 Hazardous Air Pollutants (HAPs) List

Not regulated.

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130)

Not regulated.

Material name: SODIUM HYDROXIDE 50% DIA

666745 Version #: 08 Revision date: 01-18-2017 Issue date: 05-04-2016 6 / 8

Safe Drinking Water Act

Not regulated.

(SDWA)

US state regulations

US. California Controlled Substances. CA Department of Justice (California Health and Safety Code Section 11100)

Not listed

US. California. Candidate Chemicals List. Safer Consumer Products Regulations (Cal. Code Regs, tit. 22, 69502.3, subd.

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Massachusetts RTK - Substance List

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. New Jersey Worker and Community Right-to-Know Act

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Pennsylvania Worker and Community Right-to-Know Law

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. Rhode Island RTK

SODIUM HYDROXIDE (NA(OH)) (CAS 1310-73-2)

US. California Proposition 65

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

International Inventories

Country(s) or region	Inventory name	On inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Когеа	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

^{*}A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s).

A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date

05-04-2016

Revision date

01-18-2017

Version#

08

HMIS® ratings

Health: 3

Flammability: 0 Physical hazard: 0

NFPA ratings

Health: 3

Flammability: 0 Instability: 1

Disclaimer

While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of

Brenntag's terms and conditions of sale.

Material name: SODIUM HYDROXIDE 50% DIA

Revision information

Hazard(s) identification: Hazard statement Physical & Chemical Properties: Multiple Properties Stability and reactivity: Conditions to avoid Stability and reactivity: Incompatible materials Stability and reactivity: Reactivity

Material name: SODIUM HYDROXIDE 50% DIA

666745 Version #: 08 Revision dale: 01-18-2017 Issue date: 05-04-2016



Westlake CA&O

25% CAUSTIC SODA MEMBRANE GRADE

SALES SPECIFICATION

PRODUCT:	[MEN	25% SODIUM HYDROXIDE [MEMBRANE GRADE CAUSTIC SODA]	
SPECIFICATION NO:			5105B22.02-00
BASIS		50	% SOLUTION
Property	<u>Limit(s)</u>	Test Method	Frequency
Sodium hydroxide (NaOH)	24.00-26.00% by wt.	Titrimetry	Each Lot
Sodium oxide (Na₂O)	15.00-20.20% by wt.	Calculated	Each Lot
Sodium carbonate (Na _z CO ₃)	500.0 ppm	Titrimetry	Monthly
Sodium chloride (NACI)	100.0 ppm	Titrimetry	Monthly
Sodium Sulfate (Na ₂ SO ₄)	50.0 ppm	Ion Chromatography	Monthly
Iron (Fe)	3.0 ppm	Colorimetry	Monthly
Sodium Chlorate (NaClO ₃)	10 ppm	Ion Chromatography	Monthly
Appearance	A water white, clear to slightly I	turbid liquid	
Odor	Odorless		

Note: ppm = parts per million (1 ppm = 0.0001%)



Westlake CA&O

50% CAUSTIC SODA MEMBRANE GRADE

SALES SPECIFICATION

PROPERTY	SPECIFICATION	BASIS	TEST METHOD
SODIUM HYDROXIDE (NAOH)	49.5 - 51.5	WT. %	TITRIMETRY
SODIUM OXIDE (NA₂O)	38.3 – 40.0	WT. %	CALCULATED
SODIUM CARBONATE (NA ₂ CO ₃)	.050 MAX.	WT. %.	TITRIMETRY
SODIUM CHLORIDE (NACI)	.0075 MAX.	WT. %	TURBIDIMETRY
SODIUM CHLORATE (NACIO ₃)	10.0 MAX.	PPM	ION CHROMOTAGRAPHY
SODIUM·SULFATE (NA₂SO₄)	30 MÁX.	PPM	ION CHROMOTAGRAPHY
IRON (FE)	2.0 MAX.	PPM	COLORIMETRY

ALL RESULTS ARE ON A SOLUTION BASIS.



BRENNTAG MID-SOUTH, INC.

319 First Street North
St. Albans, WV 25177
Tel. (304) 727-4379 • Fax (304) 727-6232

CERTIFICATE OF ANALYSIS

Sodium Hypochlorite Solution 12.5% (SNO GLO Bleach)

CUSTOMER:	LOT NUMBER
	DATE ANALYZED:
TANKER NUMBER:	DATE SHIPPED:
(If Applicable)	

PARAMETERS	ANALYSIS	SHIPPING SPECIFICATIONS
Sodium Hypochlarite, % by wt.		12.5% Minimum
Available Chlorine, Trade %	·	14.5% Minimum
Available Chlorine, % by wt.		12.0% Minimum
Available Chlorine, grams/liter		145 g/l Minimum
Excess Caustic, grams/liter		2.5 to 12 g/l
Excess Caustic, % by wt.		0.20 to 1%
Specific Gravity @ 77 °F		1.198 to 1.238
Color (pass/fail)	PASS	Greenish-yellow
Appearance (pass/fail)	PASS	Clear to slightly turbid liquid

	Approved: BOB MCCUTCHAN
Analyst:	- LAnnroved BUB NU.L.U.L.MAN
Allaiyati	Apploted: BOB in Cool Carrier

cc: With Shipment

Lab Procedure: 64LP322

Form Approval: __Bob McCutchan_ Form Approval Date: July 25, 2001

C:\MYDOCUMENTS\WORD\COA\SODHYP12.5%

5.0 **BID EVALUATION**

The bid will be evaluated and accepted based on the product's ability to meet the requirements of these specifications. The Bidders standard operating procedures for transfer of the material between the truck and the storage tank shall be reviewed and made a part of the evaluation.

The contract will be awarded to the lowest responsible bidder who is a recognized supplier of the product offered and whose bid complies with all of the provisions of the Bid Documents, provided that the bid price is reasonable and it is to the best interest of the Lexington Fayette Urban County Government to accept it. The Lexington Fayette Urban County Government reserves the right to reject any or all bids and to waive any informality in bids received whenever such rejections or waiver is in the best interest of the Lexington Fayette Urban County Government.

6.0 DELIVERY FOB LEXINGTON, KENTUCKY

Deliveries shall be made upon order at any time after the Lexington Fayette Urban County Government and the supplier have executed a formal contract. Orders for material will be placed for minimum quantities of 500 gallons to be shipped by truck, with pumping into the storage tank to be the responsibility of the vendor. No deliveries accepted after 2:30 p.m. Two-day response to a telephone order required. The successful bidder shall certify before award of the contract that the material will be delivered only by drivers who have had certified training in proper spill containment.

PRICING SECTION

We propose to furnish the products known as caustic soda liquid and sodium hypochlorite as an odor control chemical.

PRODUCT NAME	UNIT PRICE FOB LEXINGTON
Caustic Soda Liquid 25%	\$ 2.19 /per gallon
Caustic Soda Liquid 50%	\$ <u>2.22</u> /per gallon
Sodium Hypochlorite 12.5%	\$ 1.46 /per gallon

SPECIAL NOTE TO BIDDER:

Bidder must invoice per gallon price for the above items.

For specification questions, contact Steve Farmer, Division of Water Quality at 895-425-2404. For bidding questions contact Brian Marcum, Division of Central Purchasing 859-258-3325.