6. This Bid is genuine and not made in the interest of or on behalf of any undisclosed person, firm or corporation and is not submitted in conformity with any agreement or rules of any group, association, organization or corporation. Bidder has not directly or indirectly induced or solicited any other Bidder to submit a false or sham Bid. Bidder has not solicited or induced any person, firm or corporation to refrain from bidding and Bidder has not sought by collusion to obtain for itself any advantage over any other Bidder or over Owner.

To all the foregoing, and including all Bid Schedule(s) and Information Required of Bidder contained in this Bid Form, said Bidder further agrees to complete the WORK required under the Contract Documents within the Contract Time stipulated in said Contract Documents, and to accept in full payment thereof the Contract Price based on the Total Bid Price(s) named in the aforementioned Bidding Schedule(s).

NAME OF FIRM: Allied Universal Corporation
ADDRESS: 3901 NW 115 Ave., Miami, FL 33178
NAME OF SIGNER: Catherine Guillarmod
(Print or Type)
TITLE OF SIGNER:Executive Administrator
SIGNATURE: Lathene Gentland DATE: 03-13-14
TELEPHONE NO:FACSIMILE NO
E-MAIL ADDRESS: cathieg@allieduniversal.com

The successful Contractor(s) shall be responsible for advising the responsible issuing agency of any entities referenced in the award, who may fail to place orders under this contract.

MUNICIPALITIES AND OTHER GOVERNMENTAL AGENCIES WHICH ARE NOT MEMBERS OF THE SOUTHEAST FLORIDA GOVERNMENTAL PURCHASING COOPERATIVE GROUP ARE STRICTLY PROHIBITED FROM UTILIZING ANY CONTRACT OR PURCHASE ORDER RESULTING FROM THIS BID AWARD. HOWEVER, OTHER SOUTHEAST FLORIDA GOVERNMENTAL PURCHASING CO-OP MEMBERS MAY PARTICIPATE IN THIS CONTRACT FOR NEW USAGE, DURING THE CONTRACT TERM, OR ON ANY CONTRACT EXTENSION TERM, IF APPROVED BY THE LEAD AGENCY. NEW CO-OP MEMBERS MAY PARTICIPATE IN ANY CONTRACT ON ACCEPTANCE AND APPROVAL BY THE LEAD AGENCY. (Refer to listing of current Co-op Members attached.)

Any problem with participating agencies referenced in this award will be brought to the attention of the lead agency, City of Margate.

This cover letter is considered an integral part of the Invitation to Bid documents and any resultant award and shall be included by reference into any contract.

Very truly yours,

Patricia Greenstein Purchasing Manager City of Margate

ACKNOWLEDGED BY:		
Allied Universal Corp.		
Company Name		
Latherine Guillarmod, Executive Adminis	Date	03–13–14
Catherine Guillarmod		
Printed Name		

BID PROPOSAL FORM BID NO. 2014-009

BID TO: CITY COMMISSION CITY OF MARGATE

1. The undersigned Bidder proposes and agrees, if this Bid is accepted, to enter into an Agreement with the OWNER in the form included in the Contract Documents to perform the WORK as specified or indicated in said Contract Documents entitled:

FURNISH AND DELIVER SODIUM HYDROXIDE BID NO. 2014-009

- 2. Bidder accepts all of the terms and conditions of the Contract Documents, including without limitation those in the Notice Inviting Bids and Instructions to Bidders, dealing with the disposition of the Bid Security.
- **3.** The Bid will remain open for the period stated in the Notice Inviting Bids unless otherwise required by law. Bidder will enter into an Agreement within the time and in the manner required in the Notice Inviting Bids and the Instructions to Bidders, and will furnish the insurance certificates, Payment Bond and Performance Bond required by the Contract Documents.
- **4.** It is the Contractor's responsibility to contact the City prior to the bid opening to determine if any addenda have been issued on the project. Bidder has examined copies of all the Contract Documents including the following addenda (receipt of all of which is acknowledged):

Number	_Date
Number	_Date
Number	_Date

5. Bidder has familiarized itself with the nature and extent of the Contract Documents, WORK, site, locality where the WORK is to be performed, the legal requirements (federal, state and local laws, ordinances, rules and regulations), and the conditions affecting cost, progress or performance of the WORK and has made such independent investigations as Bidder deems necessary.

VENDOR NAME:	Allied	Universal	Corporation
77 - 11 - 12 - 13 - 14 - 15 - 14 - 15 - 14 - 15 - 14 - 15 - 14 - 15 - 14 - 15 - 14 - 15 - 14 - 15 - 15			

SCHEDULE OF BID PRICES - BID NO. 2014-009

10: CITY COMMISSION		
CITY OF MARGATE		
(Please fill in all blanks and return with your	proposal.)	
In accordance with your request for proposals and	the specifications co	ontained herein, the
undersigned proposes the following:		
*************	*******	******
DESCRIPTION	COST	
TOTAL COST PER GALLON OF SODIUM HYDROXID DELIVERED – TRUCKLOAD (OVER 3500 GAL)	DE \$1.57	/GAL
TOTAL COST PER GALLON OF SODIUM HYDROXID DELIVERED – LESS THAN TRUCKLOAD Per Bid Specifications	DE 1.89 \$	/GAL
Minimum ordering amount 400 gals (not less than 400 gal)	ì
ALL BIDS MUST BE SIGNED WITH THE VENDO		
MATERIAL SAFETY DATA SHEETS ENCLOSED?	YESX	NO
SPECIFICATION SHEETS/BROCHURES?	YESX	NO
HAVE YOUR INSURANCE REPRESENTANSURANCE CERTIFICATE TO ENSURE CO		THE SAMPLE
WILL YOUR FIRM ACCEPT PAYMENT PROCUREMENT CARD?	VIA A CITY O	OF MARGATE
PLEASE CIRCLE ONE YES NO		
Allied Universal Co	rp.	

BIDDER'S GENERAL INFORMATION:

The Bidder shall furnish the following information. Additional sheets shall be attached as required. Failure to complete Item Nos. 1, 3, and 8 will cause the bid to be non-responsive and may cause its rejection. In any event, no award will be made until all of the Bidder's General Information (i.e., items I through 9 inclusive) is delivered to the CITY.

(1)	CONTRACTOR'S name and address:
	Allied Universal
	3901 NW 115 Ave.
	Miami, FL 33178
(2)	CONTRACTOR'S telephone number:305-888-2623
	CONTRACTOR'S license: Primary classification N/A for this bid
	State License Number
	Supplemental classifications held, if any:
	Name of Licensee, if different from (1) above:
(4)	Name of person who inspected site of proposed WORK for your firm:
	Name: N/A for this bid Date of Inspection:
(5)	Name, address, and telephone number of surety company and agent who will provide the required bonds on this contract: NOT REQUIRED
(C)	ATTACH TO THIS BID the experience recover of the recovery
6)	ATTACH TO THIS BID the experience resume of the person who will be designated as supervisor for this project.
7)	ATTACH TO THIS BID a financial statement (If Required), references, and other information, sufficiently comprehensive to permit an appraisal of CONTRACTOR'S current financial condition. (Not Required)

(8) List 3 projects completed as of recent date involving work of similar type and complexity:

PROJECT NAME	CONTRACT PRICE	NAME, ADDRESS AND TELEPHONE NUMBER OF OWNER
N/A for this bid		

(9) Subcontractors: The Bidder further proposes that as part of their submittal attached is a list of subcontracting firms or businesses will be awarded subcontracts for portions of the work in the event the bidder is awarded the Contract:

WE DO NOT USE SUBCONTRACTORS

REFERENCE SHEET

In order to receive Bid Award Consideration on the proposed bid, it is a required that this sheet be completed and returned with your bid/proposal. This information may be used in determining the Bid Award for this project.

BIDI	DER (COMPANY N	NAME:Allied Universa	al Corp.		
ADD	ORESS:3901 N	W 115 Ave., Miami, FL	33178		
CON	TACT PERSON:	Catherine Guillarmod	TITLE:	Executive Administr	ator
		88–2623			
NUM	IBER OF YEARS II	N BUSINESS:60			
ADD	RESS OF NEARES	T FACILITY: 8350 NW	93 St., Miam	i, FL 33166	
LIST	THREE (3) COMP.	ANIES OR GOVERNMEN CES HAVE BEEN PROVI	NTAL AGENC	IES WHERE THESE	
1.	Company Name:_	Miami Dade Water &	Sewer		
	Address: 700 I	W. 2nd Ave., Hialeah,	FLPhone:_	786–229–0701	
	Contact Person:	Tom Segars	Title:	Plant Superintendent	88
2.	Company Name:_	Palm Beach County			
		Beach, FL			
		Sandy Cservenyak			
3.	Company Name:	Lee County			
	Address: Ft.	Myers, FL	Phone:_	239-533-5450	
	Contact Person:	Diana Khan	Title:	Procurement Manager	

BID NO. 2014-009

COMPLIANCE WITH OCCUPATIONAL SAFETY AND HEALTH ACT BID NO. 2014-009

Bidder certifies that all material, equipment, etc. contained in this bid meets all O.S.H.A. requirements. Bidder further certifies that if he/she is the successful bidder, and the material, equipment, etc., delivered is subsequently found to be deficient in any O.S.H.A. requirement in effect on date of delivery, all costs necessary to bring the material, equipment, etc. into compliance with the aforementioned requirements shall be borne by the bidder.

OCCUPATIONAL HEALTH AND SAFETY MATERIAL SAFETY DATA SHEET REQUIRED:

In compliance with Chapter 442, Florida Statutes, any item delivered from a contract resulting from this bid must be accompanied by a MATERIAL SAFETY DATA SHEET (MSDS). The MSDS must include the following information:

- A. The chemical name and the common name of the toxic substance.
- B. The hazards or other risks in the use of the toxic substances, including:
 - 1. The potential for fire, explosion, corrosivity and reactivity
 - 2. The known acute and chronic health effects of risks from exposure, including the medical conditions which are generally recognized as being aggravated by exposure to the toxic substance; and
 - 3. The primary routes of entry and symptoms of overexposure.
- C. The proper precautions, handling practices, necessary personal protective equipment, and other safety precautions in the use of or exposure to the toxic substances, including appropriate emergency treatment in case of overexposure.
- D. The emergency procedure for spills, fire, disposal and first aid.
- E. A description in lay terms of the known specific potential health risks posed by the toxic substances intended to alert any person reading this information.
- F. The year and month, if available, that the information was compiled and the name, address and emergency telephone number of the manufacturer responsible for preparing the information.

SIGNATURE:	lathere	Quel and	DATE:_	March 13, 2	2014
		7			

DRUG-FREE WORKPLACE PROGRAM FORM

In accordance with Section 287.087, State of Florida Statutes, preference shall be given to businesses with Drug-free Workplace Programs. Whenever two or more bids which are equal with respect to price, quality and service are received for the procurement of commodities or contractual service, a bid received from a business that certifies that it has implemented a Drug-free Workplace Program shall be given preference in the award process. In the event that none of the tied vendors have a Drug-free Workplace program in effect the City reserves the right to make final Decisions in the City's best interest. In order to have a Drug-free Workplace Program, a business shall:

- 1. Publish a statement notifying employees that the unlawful manufacture, distribution, dispensing, possession, or use of a controlled substance is prohibited in the workplace and specifying the actions that will be taken against employees for violations of such prohibition.
- 2. Inform employees about the dangers of drug abuse in the workplace, the business's policy of maintaining a drug-free workplace, any available drug counseling, rehabilitation, and employee assistance programs, and the penalties that may be imposed upon employees for drug abuse violations.
- 3. Give each employee engaged in providing the commodities or contractual services that are under bid a copy of the statement specified in subsection (1).
- 4. In the statement specified in subsection (1), notify employees that, as a condition of working on the commodities or contractual services that are under bid, the employee will abide by the terms of the statement and will notify the employer of any conviction of, or plea of guilty or nolo contenders to, any violation of Chapter 893 or of any controlled substance law of the United States of any State, for a violation occurring in the workplace no later than five (5) days after such conviction.
- 5. Impose a sanction on, or require the satisfactory participation in a drug abuse assistance or rehabilitation program if such is available in the employee's community by any employee who is convicted.
- 6. Make a good faith effort to continue to maintain a drug-free workplace through implementation.

If bidder's company has a Drug-free Workplace Program, so certify below:

AS THE PERSON AUTHORIZED TO SIGN THE STATEMENT, I CERTIFY THAT THIS FIRM COMPLIES FULLY WITH THE ABOVE REQUIREMENTS.

SIGNATURE OF BIDDER: Larken Genelas DATE 3-13-14



The Dow Chemical Company Midland, MI 48674

U.S.A.

THE DOW CHEMICAL COMPANY SALES SPECIFICATION

Page: 1

Date Printed: 22 JAN 2007

SPECIFIED MATERIAL: 00015216-S

Effective: 27 JAN 2004

Supersedes: 06 FEB 2003

NAME: Caustic Soda Solution 50%, Commercial Grade

MATERIAL DESCRIPTION:

Color: colorless Odor: odorless

Appearance/Physical State: clear viscous liquid

Description Note:

Viscous liquid free of color and suspended material

TEST REQUIREMENTS

TEST ITEM AND CONDITION	LIMIT	UNIT	METHOD	N –
ALL VALUES ARE ON ACTUAL SOLUTION	ON BASIS			
Total Alkalinity, Net (as NaOH)	49.00-51.00	ଚ	ASTM E291	1
Total Alkalinity, Net (as Na20)	38.00-39.50	%	ASTM E291	2
Sodium Carbonate	0.20 Max	90	ASTM E291	3
Sodium Chloride	1.00 Max	olo	DOWM 100935	
Sodium Sulfate	0.025 Max	90	ASTM E1787	4
Iron	5.0 Max	mg/kg	ASTM E291	5

TEST REQUIREMENTS NOTES:

1. Additional test method: DOWM 100508

2. Additional test method: DOWM 100508

3. Additional test method: DOWM 101442 Additional test method: DOWM 100744

4. Additional test method: DOWM 100774

5. Additional test method: DOWM 100775



The Dow Chemical Company Midland, MI 48674

U.S.A.

THE DOW CHEMICAL COMPANY SALES SPECIFICATION

Page: 2

SPECIFIED MATERIAL: 00015216-S

NAME: Caustic Soda Solution 50%, Commercial Grade

Effective: 27 JAN 2004

NOTES

 A. This product, based on an assay concentration (as NaOH) of 48.5% - 51.5%, meets the following test requirements of the Food Chemicals Codex (FCC) 4th Edition, for Sodium Hydroxide Solution. Arsenic (as As) - 1.5 mg/kg maximum

Arsenic (as As) - 1.5 mg/kg maximum Carbonate (as Na2CO3) - 1.5% maximum Heavy Metals (as Pb) - 0.001% maximum Lead (as Pb) - 5 mg/kg maximum

Lead (as Pb) - 5 mg/kg maximum

Mercury - 0.5 mg/kg maximum

B. Based on assay (as NaOH) of 48.5-51.5%, this product meets the following test requirements of the Official Journal of the European Communities - Commission Directive 2000/63/EC.

Carbonate (as Na2CO3) - 0.25% maximum Arsenic (as As) - 1.5 mg/kg maximum Lead (as Pb) - 0.25 mg/kg maximum Mercury (as Hg) - 0.5 mg/kg maximum

- C. Users of Dow Caustic Soda Solution in food-related applications must carefully assess this product to determine if it is suitable for their application. It cannot be assumed that products meeting the FCC and Commission Directive 2000/63/EC test requirements set forth immediately above are suitable for food uses.
- D. This product is produced using a non-mercury process. Mercury would not be anticipated to be found in the product.
- E. This material supplied by The Dow Chemical Company in North America is certified by NSF International NSF/ANSI Standard 60 Drinking Water Treatment Chemicals for use as Corrosion & Scale Control and pH Adjustment at a maximum use level of 100 mg/L.

READ PRECAUTIONARY INFORMATION AND MATERIAL SAFETY SHEETS. THIS PRODUCT IS SHIPPED IN COMPLIANCE WITH APPLICABLE LAWS AND REGULATIONS REGARDING CLASSIFICATION, PACKAGING, SHIPPING AND LABELING.

EMERGENCY CONTACT NUMBERS

CORPORATE:

WORKING HOURS:

(305)888 - 2623

EMERGENCY CONTACTS (OTHER PHONE NUMBERS):

1. TODD TUCKER (VP of OPERATIONS)

2. DAVID OSTRANDER (RISK MGMT. SPECIALIST)

3. Ron Zeigler (S. Regional Operations Manager)

4. JIM NOVAK (N. REGIONAL OPERATIONS MANAGER)

5. MIKE HARRIS (FLEET MAINTENANCE MANAGER)

WORK (305) 888-2623, X.122, CELL (903) 987-3248

WORK (305) 888-2623, x.137, CELL (954) 261-7730

WORK (772) 464-7001, CELL (772) 342-1872

WORK (706) 334-7377, x.203, CELL (423) 367-0125

WORK (912) 267-9470, x.127, CELL (912) 571 0704

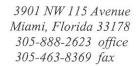
US TSA's Transportation Security Coordination Center:

(703) 563-3236 OR 3237

BRANCHES:

	HOME OR CELL PHONE NO.
MIAMI, FL (305) 888-2623	
JAMIE JOHNSON	CELL # (305) 216-4612
LEO DELEON	CELL # (305) 310-0762
SCOTT GRAY	CELL # (305) 335-0756
FT. PIERCE, FL (772) 464-6195	
EVELIO TORRES	CELL # (772) 201-5960
TOM STRICKLAND	CELL # (772) 919-7023
TAMPA, FL (813) 832-4868	
Ken Cole	CELL # (813) 210-2327
VAL BOLBIRER	CELL # (917) 709-4363
KAREN GARILLI	CELL # (813) 966-3635
JACKSONVILLE, FL (904) 438-4976	
DAVID SCHULTZ	CELL # (912) 222-9487
BRUNSWICK, GA (912) 267-9470	
RANDY BUNKLEY	CELL # (912) 571-1697
MIKE LEBEN	CELL # (772) 528-5436
CHARITY BREWER	CELL # (912) 230-8680
RANGER, GA (706) 334-7377	
JIM NOVAK	CELL # (423) 367-0125
NICK RAINEY	CELL # (706) 280-0048
WILLIAM FLEMMING	CELL # (770) 519-4031
ELLISVILLE, MS (601) 447-2550	
JAMES JEFFERSON	CELL # (601) 455-2852
JEFF SANCHEZ	CELL # (813) 263-4191

2/5/2014





March 10, 2014

Allied Universal Corporation is a privately owned company, which has been in business since 1954. Our Corporate Headquarters is located at 3901 N.W. 115 Avenue, Miami, FL 33178.

There are presently 6 delivery locations; Miami, Ft. Pierce, and CFI-Tampa, FL; Brunswick and Ranger, GA; and Ellisville, MS. We package Gas Chlorine, in all locations, except Ft. Pierce and manufacture Sodium Hypochlorite, in all of our locations, and have serviced Utilities and Municipalities, in 22 states, for over 57 years. We also distribute other water treatment chemicals, swimming pool chemicals, and some chemicals for industrial use.

All deliveries will be made by our affiliate company, Transportation Services Unlimited, with a dedicated fleet of over 100 tractors and tankers, with an employee complement of approximately 275 people.

The location of the nearest emergency station is Medley, FL. Jaimie Johnson, Branch Manager, will be in charge of emergency crews. Attached is our Emergency Contact List and Emergency Spill Procedure, for your review.

If you have any questions or concerns on any of this information, please contact Catherine Guillarmod, Executive Administrator, Allied Universal Corporation, 3901 N.W. 115 Avenue, Miami, FL 33178, phone number (305) 888-2623/Ext. 104; Fax, (305) 463-8369; E-Mail, cathieg@allieduniversal.com

/cg

3901 NW 115th Avenue Miami, Florida 33178 305-888-2623 office 305-885-4671 fax



July, 2012

Dear Allied Customer:

As a member of the National Association of Chemical Distributors, Allied Universal Corporation strongly encourages all of its customers to formulate, periodically review and update their procedures for the proper handling and use of Allied's chemical products. Customer procedures should, of course, include emergency preparedness and plans for handling potential chemical spills and releases.

It is the responsibility of each customer to develop its own individual, site-specific emergency procedures. The attached "Spill Contingency" pamphlet contains examples of some of the types of procedures customers may wish to consider when formulating, reviewing or updating their respective emergency procedures. Customers should NOT rely upon these examples, as they are not intended to be comprehensive, nor will they be appropriate for every customer, since our customers' business operations, personnel, physical facilities and locations are diverse, and customer practices and procedures will, by necessity, vary accordingly. Customers may, however, find these examples useful in formulating, reviewing or updating their own individualized, site-specific practices and procedures.

Allied strongly recommends that each customer consult with a qualified and licensed environmental cleanup service in formulating emergency procedures for handling chemical spills or releases. As part of these procedures, each customer should have available for immediate use the contact information for local environmental cleanup services.

All customers must ensure that their employees are trained in the proper and safe handling and use of all chemical products, and that their employees are familiar with all applicable labels and Material Safety Data Sheets. This employee training must be documented and maintained on file at all times, in accordance with applicable government regulations.

It is the responsibility of every customer to familiarize themselves and to comply with all applicable federal, state and local laws and regulations pertaining to chemicals utilized in the customer's business operations, including, but not limited to, title 29 of the Code of Federal Regulations, section 1910.38. Customers should not rely upon the attached exemplar procedures. Customers should consult with and rely only upon the advice of licensed legal and environmental professionals. Allied will not be responsible for any incidental, consequential, special or other damages arising from or relating to the attached exemplar procedures, or its customers formulation and implementation of emergency preparedness and chemical cleanup procedures.

If Allied can assist your efforts in the proper handling of our products, please contact your Sales Representative.

CONTENTS

SPILL CONTINGENCY	PAGE	3
REPORTABLE QUANTITY REPORTING	PAGE	4
NOTIFICATION PROCEDURES	PAGE	5
WRITTEN FOLLOW UP	PAGE	6
REPORTABLE QUANTITY LIST	PAGE	8
SODIUMHYPOCHLORITE SPILLS	PAGE	9
SODIUM HYDROXIDE SPILLS	PAGE	11
ACID SPILLS	PAGE	13
CHLORINE/SULFUR DIOXIDE RELEASES	PAGE	15

SPILL CONTINGENCY

In the event of a spill or leak, the employee discovering the spill or leak should immediately notify the site supervisor or manager. The site supervisor or manager should direct the employee to determine the source or cause of the leak and provide the employee with instructions on how to control or contain the incident, if possible. If containment and control is not possible, the facility owner or authorized site manager manager/supervisor should call the local public agency and first responders as well as their supplier.

Please insert applicable phone numbers and names for your location.

EMERGENCY RESPONSE PHONE NUMBERS			
FIRE DEPARTMENT	911		
ALLIED 24HR CHEMICAL SPILL EMERGENCY PAGER	1-305-483-7732		
ALLIED BRANCH SUPPLIER NUMBER:			
Miami, FL Ft. Pierce, FL	305-888-2623, x 139 OR 103		
CFI - Tampa, FL	561-464-6195 813-832-4868		
Jacksonville, FL	904-438-4976		
Brunswick, GA Ranger, GA	912-267-9470 706-334-7377		
Ellisville, MS	601-477-2550		
ALLIED SALES REPRESENTATIVE (Insert name & number)			
LOCAL HOSPITAL NAME & PHONE NUMBER			
OTHER APPLICABLE EMERGENCY NUMBER			
FACILITY NEIGHBOR			
FACILITY NEIGHBOR			

WARNING: CUSTOMERS SHOULD NOT RELY UPON THESE EXEMPLAR PROCEDURES, AS THEY ARE INTENDED SOLELY FOR THE CUSTOMER'S USE AS A STARTING POINT IN FORMULATING EACH CUSTOMER'S INDIVIDUAL, SITE-SPECIFIC EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES. CUSTOMERS SHOULD CONSULT WITH AND RELY ONLY UPON THE ADVICE OF LICENSED LEGAL AND ENVIRONMENTAL PROFESSIONALS IN FORMULATING THEIR INDIVIDUAL, SITE-SPECIFIC PROCEDURES. ALLIED IS NOT RESPONSIBLE FOR ANY DAMAGES, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL, CONSEQUENTIAL AND SPECIAL DAMAGES, ARISING FROM THE CUSTOMER'S FORMULATION AND IMPLEMENTATION OF EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES.

Hazardous Materials such as Sodium Hypochlorite Solution (Bleach), Sodium Hydroxide Solution (Caustic) and Acids have different properties and as such have different Reportable Quantities (RQ) dealing with notification. Reportable Quantity (RQ) as defined by the USEPA, means that quantity (as set forth by regulation), the release of which requires notification to the National Response Center at 1-800-424-8802.

Both the USEPA and USDOT have published tables on Reportable Quantities for Hazardous Substances in the United States Code of Federal Regulations: EPA 40 CFR § 302.4 and DOT at 49 CFR § 172.101 APPENDIX A, Table 1.

It should be understood that the RQ's as listed by both USEPA & USDOT are for pure substances. The chart on page 8 can be used to determine whether a RQ leak or spill has occurred.

If a spill, leak or release to the environment, has occurred over the RQ amount, and material has not been contained by a containment device (e.g. scrubber, building, dike, etc.), notification to Federal, State and local authorities must and may have to be made. Federal notification is required, State and Local notification will vary from State-to-State and locality-to-locality. You must check with your State and Local applicable authorities to determine notification requirements. The Federal and some State numbers are listed below:

US NATIONAL RESPONSE CENTER	800-424-8802
FL STATE WARNING POINT	800-320-0519
GA OFFICE OF EMERGENCY SERVICES	800-241-4113
AR CHEMICAL EMERGENCY HOTLINE	800-332-4012
MS STATE WARNING POINT	800-222-6362

WARNING: CUSTOMERS SHOULD NOT RELY UPON THESE EXEMPLAR PROCEDURES, AS THEY ARE INTENDED SOLELY FOR THE CUSTOMER'S USE AS A STARTING POINT IN FORMULATING EACH CUSTOMER'S INDIVIDUAL, SITE-SPECIFIC EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES. CUSTOMERS SHOULD CONSULT WITH AND RELY ONLY UPON THE ADVICE OF LICENSED LEGAL AND ENVIRONMENTAL PROFESSIONALS IN FORMULATING THEIR INDIVIDUAL, SITE-SPECIFIC PROCEDURES. ALLIED IS NOT RESPONSIBLE FOR ANY DAMAGES, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL, CONSEQUENTIAL AND SPECIAL DAMAGES, ARISING FROM THE CUSTOMER'S FORMULATION AND IMPLEMENTATION OF EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES.

If it has been determined that a release in excess of the Reportable Quantity (RQ) has occurred (see listings on page 8) to the air, grounds or waters of the State, notification must be made within 15 minutes from the time the release was discovered in accordance with the United States Code of Federal Regulations 40CFR §302.6 and §355.40(b) to:

1. National Response Center 800-424-8802

And to the following agencies per State applicable laws:

2. The State Warning Point/State Emergency Response Hotline

When notification is required to the Federal government and State government via the National Response Center and State Emergency Response Center require specific information as per 40CFR §355.40(b)(2)(i - vii). This information includes but will not be limited to:

- Chemical Name Specify whether an extremely hazardous substance.
 Also, the UN (i.e. UN 1791 for bleach, UN 1824 for caustic, etc).
- 2. Location, time and duration of release.
- Medium or Media into which the release occurred.
- 4. Estimate of quantity of product released.
- Known or anticipated acute or chronic health risks associated with the emergency and where appropriate, advice regarding medical attention necessary for exposed individuals. (Use Material Safety Data Sheet -MSDS).
- Proper precautions to be taken as a result of the release, including evacuation if necessary, and
- 7. Name and telephone number of Emergency Coordinator.

Within seven (7) days after a release which requires verbal notification to the Federal and State governments, the owner or operator of the facility shall provide a written follow up emergency notice to the State Emergency Response Center and Local Emergency Planning Council (LEPC). The letter should contain, at a minimum, the following information:

- Chemical Name Include whether an extremely hazardous substance.
 Also, the UN (i.e. UN 1791for bleach, UN 1824 for caustic, etc).
- 2. Location, time and duration of release.
- 3. Medium or Media into which the release occurred.
- 4. Estimate of quantity of product released.
- Known or anticipated acute or chronic health risks associated with the emergency and where appropriate, advice regarding medical attention necessary for exposed individuals. (Use Material Safety Data Sheet -MSDS).
- Actions that were taken as a result of the release, including evacuation and hospitalizations, and
- 7. Name and telephone number of Emergency Coordinator.

The following table lists the name and addresses of a few of these agencies:

WRITTEN FOLLOW-UP NOTIFICATION ADDRESSES			
FL STATE EMERGENCY RESPONSE	FL State Emerg. Response		
COMMISSION	Commission		
	2555 Shumard Oak Boulevard		
	Tallahassee, FL 32399		
	800-320-0519		
GA DEPARTMENT OF NATURAL	850-413-9911		
RESOURCES	Department of Natural Resources Environmental Protection Division		
NEGOGNOEG	7 Martin Luther King Drive, Room 643		
	Atlanta, Georgia 30334		
	800-241-4113		
AR DEPARTMENT OF	ADEQ		
ENVIRONMENTAL QUALITY	PO Box 8913		
	Little Rock, AR 72219-8913		
	Attn: Emergency Response Section		
	800-322-4012		
MS EMERGENCY MANAGEMENT	MEMA		
AGENCY	PO Box 4501		
	Jackson, MS 39296-4501 800-222-6362		
	601-352-9100		
OTHER CTATE EMERGENCY			
OTHER STATE EMERGENCY AGENCY	INSERT ADDRESS HERE		
AGENCI			
LOCAL EMERGENCY PLANNING	CHECK WITH YOUR LEPC TO		
COMMISSIONS	DETERMINE WHERE YOUR LETTER		
	MUST BE SENT.		

REPORTABLE QUANTITY CHEMICAL LIST

PRODUCT	RQ - IN GALLONS	RQ - IN POUNDS
ANHYDROUS AMMONIA	20 Gallons	100 Pounds
AQUA AMMONIA (29% +/-)	455 Gallons	1000 Pounds
CHLORINE GAS	0.86 Gallons	10 Pounds
MURIATIC ACID 20 Bé (Hydrochloric Acid)	1,639 Gallons	5000 Pounds
MURIATIC ACID 22 Bé (Hydrochloric Acid)	1,449 Gallons	5000 Pounds
SODIUM BISULFITE SOLUTION - 38%	1,170 Gallons	5000 Pounds
SODIUM HYPOCHLORITE SOLUTION - 10.5%	98 Gallons	100 Pounds
SODIUM HYPOCHLORITE SOLUTION - 12.5%	80 Gallons	100 Pounds
SODIUM HYPOCHLORITE SOLUTION - 15%	64 Gallons	100 Pounds
SODIUM HYDROXIDE SOLUTION - 50%	156 Gallons	1000 Pounds
SODIUM HYDROXIDE SOLUTION - 25%	374 Gallons	1000 Pounds
SULFUR DIOXIDE	44 Gallons	500 Pounds
SULFURIC ACID - 28 Bé	296 Gallons	1000 Pounds

WARNING: CUSTOMERS SHOULD NOT RELY UPON THESE EXEMPLAR PROCEDURES, AS THEY ARE INTENDED SOLELY FOR THE CUSTOMER'S USE AS A STARTING POINT IN FORMULATING EACH CUSTOMER'S INDIVIDUAL, SITE-SPECIFIC EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES. CUSTOMERS SHOULD CONSULT WITH AND RELY ONLY UPON THE ADVICE OF LICENSED LEGAL AND ENVIRONMENTAL PROFESSIONALS IN FORMULATING THEIR INDIVIDUAL, SITE-SPECIFIC PROCEDURES. ALLIED IS NOT RESPONSIBLE FOR ANY DAMAGES, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL, CONSEQUENTIAL AND SPECIAL DAMAGES, ARISING FROM THE CUSTOMER'S FORMULATION AND IMPLEMENTATION OF EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES.

II. PROCEDURES FOR SODIUM HYDROXIDE SOLUTION

1. Spill or Leak in Bulk Storage Tank

- a. Containment drain valve (if available) must be closed. Valve should only be opened to drain rainwater from containment and closed afterward. Verify State and local regulations for discharging rainwater prior to discharging. Chlorine levels and pH must not exceed State and local requirements before discharging.
- b. Determine the source of the actual leak.
- c. If the storage tank system is not damaged, pump only good Sodium Hydroxide back into the storage tank for re-use.
- d. Spilled or released Sodium Hydroxide that cannot be recovered or reused must be neutralized and properly disposed of in accordance with applicable Federal, State and Local regulations
- e. Notify your supplier.

Discharges to Ground or Pavement

- a. Determine the source of the Sodium Hydroxide leak.
- b. Stop the leak and contain the spilled product.
- If the personal safety of facility individuals is in danger, site supervision should evacuate the facility.
- Notify the local Fire Department.
- e. Notify your supplier.

3. Treatment, Neutralization, Clean Up Procedures

a. Spills of Sodium Hydroxide solution must never be rinsed or flushed to drains or sewers. Suitable absorbent materials such as sand, vermiculite or clay should be used to absorb the material. Contaminated absorbents and soils should be

WARNING: CUSTOMERS SHOULD NOT RELY UPON THESE EXEMPLAR PROCEDURES, AS THEY ARE INTENDED SOLELY FOR THE CUSTOMER'S USE AS A STARTING POINT IN FORMULATING EACH CUSTOMER'S INDIVIDUAL, SITE-SPECIFIC EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES. CUSTOMERS SHOULD CONSULT WITH AND RELY ONLY UPON THE ADVICE OF LICENSED LEGAL AND ENVIRONMENTAL PROFESSIONALS IN FORMULATING THEIR INDIVIDUAL, SITE-SPECIFIC PROCEDURES. ALLIED IS NOT RESPONSIBLE FOR ANY DAMAGES, INCLUDING, BUT NOT LIMITED TO, INCIDENTAL, CONSEQUENTIAL AND SPECIAL DAMAGES, ARISING FROM THE CUSTOMER'S FORMULATION AND IMPLEMENTATION OF EMERGENCY PREPAREDNESS/CHEMICAL CLEANUP PROCEDURES.

- scraped up using shovels and placed in suitable hazardous material containers and disposed of in accordance with all applicable regulations.
- b. After removing absorbents from ground, neutralization of remaining residue may be accomplished using a weak acid solution such as 5% acetic acid (vinegar). Neutralization will occur rapidly and should be checked with pH paper. Caution should be used as some heat may be generated during this process. By-products of this neutralization are water and salt.
- c. After neutralization has been conducted, the remaining residue is generally considered safe for rinsing to local sewer systems connected to Waste Water Treatment Stations.

Permission must be obtained through the local treatment facility and local environmental agencies before rinsing of residue is started.



Material Safety Data Sheet

The Dow Chemical Company

Product Name: Caustic Soda Solution 50%, Commercial Grade

Issue Date: 06/22/2007 Print Date: 26 Jun 2007

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

Product and Company Identification

Product Name

Caustic Soda Solution 50%, Commercial Grade

COMPANY IDENTIFICATION

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

Customer Information Number:

800-258-2436

EMERGENCY TELEPHONE NUMBER

24-Hour Emergency Contact: Local Emergency Contact:

989-636-4400 989-636-4400

2. Hazards Identification

Emergency Overview

Color: Colorless

Physical State: Liquid above freezing point

Odor: Odorless Hazards of product:

DANGER! Causes severe eye burns. Causes severe skin burns. Causes burns of the mouth and throat. Causes respiratory tract irritation. Aspiration hazard. Can enter lungs and cause damage. May react with water. Keep upwind of spill.

OSHA Hazard Communication Standard

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

Potential Health Effects

Eye Contact: May cause severe irritation with corneal injury which may result in permanent impairment of vision, even blindness. Chemical burns may occur. Mist may cause eye irritation. **Skin Contact:** Brief contact may cause severe skin burns. Symptoms may include pain, severe local redness and tissue damage.

Skin Absorption: Prolonged skin contact is unlikely to result in absorption of harmful amounts. **Inhalation:** Mist may cause severe irritation of upper respiratory tract (nose and throat). **Ingestion:** Swallowing may result in burns of the mouth and throat. Swallowing may result in gastrointestinal irritation or ulceration. Aspiration into the lungs may occur during ingestion or vomiting, causing tissue damage or lung injury.

3. Composition Information

Component	CAS#	Amount	
Sodium hydroxide	1310-73-2	>= 49.0 - <= 51.0 %	
Water	7732-18-5	>= 49.0 - <= 51.0 %	
Sodium chloride	7647-14-5	<= 1.0 %	

4. First-aid measures

Eye Contact: Wash eyes immediately and continuously with water for 30 minutes. Remove contact lenses after the first 5 minutes and continue washing. Seek medical attention immediately, preferably from an ophthalmologist. Wash eyes en route if possible. Washing with water is the only acceptable method of removal of caustic soda (lye) from the eyes and skin. You may have 10 seconds or less to avoid serious permanent injury.

Skin Contact: Immediate continued and thorough washing in flowing water for at least 30 minutes is imperative while removing contaminated clothing. Prompt medical consultation is essential. Wash clothing before reuse. Properly dispose of leather items such as shoes, belts, and watchbands. Remove chemical goggles last to keep material from washing into the eyes. First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection)

Inhalation: Move person to fresh air. If not breathing, give artificial respiration; if by mouth to mouth use rescuer protection (pocket mask, etc). If breathing is difficult, oxygen should be administered by qualified personnel. Call a physician or transport to a medical facility.

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

Notes to Physician: Material is a strong alkali. First Aid responders should pay attention to self-protection and use the recommended protective clothing (chemical resistant gloves, splash protection) Due to irritant properties, swallowing may result in burns/ulceration of mouth, stomach and lower gastrointestinal tract with subsequent stricture. Aspiration of vomitus may cause lung injury. Suggest endotracheal/esophageal control if lavage is done. Eye irrigation may be necessary for an extended period of time to remove as much caustic as possible. Duration of irrigation and treatment is at the discretion of medical personnel. Maintain adequate ventilation and oxygenation of the patient. For burns of skin only. If burn is present, treat as any thermal burn, after decontamination. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient.

5. Fire Fighting Measures

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

Fire Fighting Procedures: Keep people away. Isolate fire and deny unnecessary entry. Water is not recommended, but may be applied in large quantities as a fine spray when other extinguishing agents are not available. This material does not burn. Fight fire for other material that is burning.

Special Protective Equipment for Firefighters: Wear positive-pressure self-contained breathing apparatus (SCBA) and protective fire fighting clothing (includes fire fighting helmet, coat, trousers, boots, and gloves). Avoid contact with this material during fire fighting operations. If contact is likely, change to full chemical resistant fire fighting clothing with self-contained breathing apparatus. If this is

not available, wear full chemical resistant clothing with self-contained breathing apparatus and fight fire

from a remote location. For protective equipment in post-fire or non-fire clean-up situations, refer to the relevant sections.

Unusual Fire and Explosion Hazards: Product reacts with water. Reaction may produce heat and/or gases. This reaction may be violent. Violent steam generation or eruption may occur upon application of direct water stream to hot liquids.

Hazardous Combustion Products: Not applicable

6. Accidental Release Measures

Steps to be Taken if Material is Released or Spilled: Contain spilled material if possible. Small spills: Dilute with water. Large spills: Dike area to contain spill. Collect in suitable and properly labeled containers. Attempt to neutralize by adding materials such as Acetic acid. See Section 13, Disposal Considerations, for additional information.

Personal Precautions: Evacuate area. Only trained and properly protected personnel must be involved in clean-up operations. Refer to Section 7, Handling, for additional precautionary measures. Keep upwind of spill. Ventilate area of leak or spill. See Section 10 for more specific information. Use appropriate safety equipment. For additional information, refer to Section 8, Exposure Controls and Personal Protection.

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

7. Handling and Storage

Handling

General Handling: Do not get in eyes. Do not get on skin or clothing. Do not swallow. Avoid breathing mist. Keep container closed. Use with adequate ventilation. Wash thoroughly after handling. 1. ALWAYS add caustic soda solution to water with constant agitation. NEVER add water to the caustic soda solution. 2. The water should be lukewarm (27-38°C or 80-100°F). NEVER start with hot or cold water. The addition of caustic soda to liquid will cause a rise in temperature. If caustic soda becomes concentrated in one area, is added too rapidly, or is added to hot or cold liquid, a rapid temperature increase can result in DANGEROUS mists, boiling or spattering which may cause an immediate VIOLENT ERUPTION. See Section 8, EXPOSURE CONTROLS AND PERSONAL PROTECTION.

Storage

Keep container closed. Do not store in: Zinc. Aluminum. Brass. Tin. See Section 10 for more specific information.

Storage temperature: > 16 °C Shelf life: Use within 24 Months

8. Exposure Controls / Personal Protection

Exposure Limits				
Component	List	Туре	Value	
Sodium chloride	Dow IHG	TWA	10 mg/m3	
Sodium hydroxide	ACGIH OSHA Table Z-1	Ceiling PEL	2 mg/m3 2 mg/m3	

Personal Protection

Eye/Face Protection: Use chemical goggles. Eye wash fountain should be located in immediate work area.

Skin Protection: Use protective clothing chemically resistant to this material. Selection of specific items such as face shield, boots, apron, or full body suit will depend on the task. Safety shower should be located in immediate work area. Remove contaminated clothing immediately, wash skin area with soap and water, and launder clothing before reuse or dispose of properly. Items which cannot be decontaminated, such as shoes, belts and watchbands, should be removed and disposed of properly.

Issue Date: 06/22/2007

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

Respiratory Protection: Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, wear respiratory protection when adverse effects, such as respiratory irritation or discomfort have been experienced, or where indicated by your risk assessment process. In misty atmospheres, use an approved particulate respirator. The following should be effective types of airpurifying respirators: Particulate filter.

Ingestion: Avoid ingestion of even very small amounts; do not consume or store food or tobacco in the work area; wash hands and face before smoking or eating.

Engineering Controls

Ventilation: Use engineering controls to maintain airborne level below exposure limit requirements or guidelines. If there are no applicable exposure limit requirements or guidelines, use only with adequate ventilation. Local exhaust ventilation may be necessary for some operations.

9. Physical and Chemical Properties

Physical State Liquid above freezing point

Color
Odor
Odor
Flash Point - Closed Cup
Flammable Limits In Air
Colorless
Odorless
Literature None
Lower: Not applicable
Upper: Not applicable

Autoignition Temperature Not applicable

Vapor Pressure

1.5 mmHg @ 20 °C Literature

Vapor Density (air = 1) Not applicable Specific Gravity (H2O = 1) 1.52 Literature

Liquid Density

Freezing Point

Melting Point

Solubility in Water (by

1.5 g/cm3 @ 20 °C Literature

14 °C (57 °F) Literature

14 °C (57 °F) Literature

Literature water solution

weight)

pH 14 Literature

Kinematic Viscosity 0.35 St @ 25 °C Calculated

10. Stability and Reactivity

Stability/Instability

Stable under recommended storage conditions. See Storage, Section 7. Conditions to Avoid: Avoid moisture. Product absorbs carbon dioxide from the air.

Incompatible Materials: Heat is generated when mixed with water. Spattering and boiling can occur. Caustic soda solution reacts readily with various reducing sugars (i.e. fructose, galactose, maltose, dry whey solids) to produce CO. Take precautions including monitoring the tank atmosphere for CO to ensure safety of personnel before vessel entry. Avoid contact with: Acids. Glycols. Halogenated organics. Organic nitro compounds. Flammable hydrogen may be generated from contact with metals such as: Zinc. Aluminum. Tin. Brass.

Hazardous Polymerization

Will not occur.

Thermal Decomposition

Does not decompose.

11. Toxicological Information

Acute Toxicity

Ingestion

Single dose oral LD50 has not been determined.

Skin Absorption

The dermal LD50 has not been determined.

Repeated Dose Toxicity

Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Genetic Toxicology

For the major component(s): In vitro genetic toxicity studies were negative.

12. Ecological Information

CHEMICAL FATE

Data for Component: Sodium hydroxide

Movement & Partitioning

No bioconcentration is expected because of the relatively high water solubility. Potential for mobility in soil is very high (Koc between 0 and 50).

Partition coefficient, n-octanol/water (log Pow): -3.88 Estimated

Partition coefficient, soil organic carbon/water (Koc): 14 Estimated

Persistence and Degradability

Biodegradation is not applicable.

Data for Component: Sodium chloride

Movement & Partitioning

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

Persistence and Degradability

Biodegradation is not applicable.

ECOTOXICITY

Data for Component: Sodium hydroxide

Material is slightly toxic to aquatic organisms on an acute basis (LC50/EC50 between 10 and 100 mg/L in the most sensitive species tested). May increase pH of aquatic systems to > pH 10 which may be toxic to aquatic organisms.

Fish Acute & Prolonged Toxicity

LC50, rainbow trout (Oncorhynchus mykiss), 96 h: 45.5 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, water flea Daphnia magna: 40 - 240 mg/l

Data for Component: Sodium chloride

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

Fish Acute & Prolonged Toxicity

LC50, fathead minnow (Pimephales promelas): 10,610 mg/l

Aquatic Invertebrate Acute Toxicity

LC50, water flea Daphnia magna: 4,571 mg/l

Toxicity to Micro-organisms

IC50, OECD 209 Test; activated sludge, respiration inhibition: > 1,000 mg/l

13. Disposal Considerations

DO NOT DUMP INTO ANY SEWERS, ON THE GROUND, OR INTO ANY BODY OF WATER. All disposal practices must be in compliance with all Federal, State/Provincial and local laws and regulations. Regulations may vary in different locations. Waste characterizations and compliance with applicable laws are the responsibility solely of the waste generator. DOW HAS NO CONTROL OVER THE MANAGEMENT PRACTICES OR MANUFACTURING PROCESSES OF PARTIES HANDLING OR USING THIS MATERIAL. THE INFORMATION PRESENTED HERE PERTAINS ONLY TO THE PRODUCT AS SHIPPED IN ITS INTENDED CONDITION AS DESCRIBED IN MSDS SECTION: Composition Information. FOR UNUSED & UNCONTAMINATED PRODUCT, the preferred options include sending to a licensed, permitted: Recycler. As a service to its customers, Dow can provide names of information resources to help identify waste management companies and other facilities which recycle, reprocess or manage chemicals or plastics, and that manage used drums. Telephone Dow's Customer Information Group at 1-800-258-2436 or 1-989-832-1556 (U.S.), or 1-800-331-6451 (Canada) for further details.

14. Transport Information

DOT Non-Bulk

Proper Shipping Name: SODIUM HYDROXIDE SOLUTION
Hazard Class: 8 ID Number: UN1824 Packing Group: PG II

DOT Bulk

Proper Shipping Name: SODIUM HYDROXIDE SOLUTION Hazard Class: 8 ID Number: UN1824 Packing Group: PG II

IMDG

Proper Shipping Name: SODIUM HYDROXIDE SOLUTION Hazard Class: 8 ID Number: UN1824 Packing Group: PG II

EMS Number: F-A,S-B Marine pollutant.: No

ICAO/IATA

Proper Shipping Name: SODIUM HYDROXIDE SOLUTION Hazard Class: 8 ID Number: UN1824 Packing Group: PG II

Cargo Packing Instruction: 812
Passenger Packing Instruction: 808

Additional Information

Reportable quantity: 1,961 lb - SODIUM HYDROXIDE

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

15. Regulatory Information

OSHA Hazard Communication Standard

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

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

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

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

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

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

The following product components are cited in the Pennsylvania Hazardous Substance List and/or the Pennsylvania Environmental Substance List, and are present at levels which require reporting.

Component	CAS#	Amount	
Sodium hydroxide	1310-73-2	<= 51.0 %	

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

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

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

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

US. Toxic Substances Control Act

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

European Inventory of Existing Commercial Chemical Substances (EINECS)

The components of this product are on the EINECS inventory or are exempt from inventory requirements.

CEPA - Domestic Substances List (DSL)

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

Other Information

Product Literature

Additional information on this product may be obtained by calling your Dow Chemical Company sales or customer service contact. Ask for a product brochure.

Hazard Rating System

NFPA Health Fire Reactivity
3 0 1

Recommended Uses and Restrictions

Extraction of the aluminium from the bauxite ore. In the soap and detergents industry. Main application(s): Liberation of the cellulose fibres from the lignin in the pulp and paper industry.

Revision

Identification Number: 50752 / 0000 / Issue Date 06/22/2007 / Version: 2.2 Most recent revision(s) are noted by the bold, double bars in left-hand margin throughout this document.

Legend

5	
N/A	Not available
W/W	Weight/Weight
OEL	Occupational Exposure Limit
STEL	Short Term Exposure Limit
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists, Inc.
DOW IHG	Dow Industrial Hygiene Guideline
WEEL	Workplace Environmental Exposure Level
HAZ DES	Hazard Designation
Action Level	A value set by OSHA that is lower than the PEL which will trigger the need for
	activities such as exposure monitoring and medical surveillance if exceeded.

The Dow Chemical Company urges each customer or recipient of this (M)SDS to study it carefully and consult appropriate expertise, as necessary or appropriate, to become aware of and understand the data contained in this (M)SDS and any hazards associated with the product. The information herein is provided in good faith and believed to be accurate as of the effective date shown above. However, no warranty, express or implied, is given. Regulatory requirements are subject to change and may differ between various locations. It is the buyer's/user's responsibility to ensure that his activities comply with all federal, state, provincial or local laws. The information presented here pertains only to the product as shipped. Since conditions for use of the product are not under the control of the manufacturer, it is the buyer's/user's duty to determine the conditions necessary for the safe use of this product. Due to the proliferation of sources for information such as manufacturer-specific (M)SDSs, we are not and cannot be responsible for (M)SDSs obtained from any source other than ourselves. If you have obtained an (M)SDS from another source or if you are not sure that the (M)SDS you have is current, please contact us for the most current version.

Page 8 of 8



The Public Health and Safety Organization

NSF Product and Service Listings

These NSF Official Listings are current as of **Monday, March 10, 2014** at 12:15 a.m. Eastern Time. Please <u>contact NSF International</u> to confirm the status of any Listing, report errors, or make suggestions.

Alert: NSF is concerned about fraudulent downloading and manipulation of website text. Always confirm this information by clicking on the below link for the most accurate information: http://info.nsf.org/Certified/PwsChemicals/Listings.asp?
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<a href="https://info.nsf.org/Certified/PwsChemicals/Listi

NSF/ANSI 60 Drinking Water Treatment Chemicals - Health Effects

Allied Universal Corporation

3901 Northwest 115th Avenue
Miami, FL 33178
United States
800-981-6700
305-888-2623
Visit this company's website (http://www.allieduniversal.com)

Facility: Distribution Center - Jacksonville, FL

Sodium Hypochlorite[1] [CL]

Trade Designation	Product Function	Max Use
Aqua Guard Chlorinating Sanitizer 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5% By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite	Disinfection & Oxidation	100mg/L

- [1] Based on testing to the requirements of NSF/ANSI 60, use of this product at a dose of 100 mg/L or less is expected to contribute a bromate residual of 0.003 mg/L or less to the finished drinking water.
- [CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility: Fort Pierce, FL

Sodium Hydroxide

Trade Designation	Product Function	Max Use
Caustic Soda	Corrosion & Scale Control	100 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Rayon Grade Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L

Sodium Hypochlorite[1] [CL]

Trade Designation	Product Function	Max Use
Aqua Guard Chlorinating Sanitizer	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100 mg/L
Aqua Guard Sodium Hypochlorite 10.5% By Weight	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L

- [1] Based on testing to the requirements of NSF/ANSI 60, use of this product at a dose of 100~mg/L or less is expected to contribute a bromate residual of 0.001~mg/L or less to the finished drinking water.
- [CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility: Miami, FL

Calcium Hypochlorite[CL]

Trade Designation	Product Function	Max Use
Aqua Guard Cal Hypo	Disinfection & Oxidation	15mg/L
	Algicide	
Aqua Guard Cal Hypo Granules	Disinfection & Oxidation	15mg/L
	Algicide	
Calcium Hypochlorite	Disinfection & Oxidation	15mg/L
	Algicide	

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Chlorine[CL]

Trade Designation	Product Function	Max Use
Chlorine	Disinfection & Oxidation	30mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Sodium Hydroxide

Trade Designation	Product Function	Max Use
Caustic Soda	Corrosion & Scale Control	100mg/L
Rayon Grade Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide	Corrosion & Scale Control	100mg/L

Sodium Hypochlorite[CL]

Trade Designation	Product Function	Max Use
Aqua Guard Chlorinating Sanitizer 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5% By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite	Disinfection & Oxidation	100mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility: Tampa, FL

Chlorine[CL]

Trade DesignationProduct FunctionMax UseChlorineDisinfection & Oxidation30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Sodium Hydroxide

Trade Designation	Product Function	Max Use
Caustic Soda	Corrosion & Scale Control	100 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Rayon Grade Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L

Sodium Hypochlorite[CL]

Trade Designation Product Function Max Use

Aqua Guard Chlorinating Sanitizer 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 10.5% Chlorine By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5% By Weight	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite	Disinfection & Oxidation	100mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility: Brunswick, GA

Chlorine[CL]

Trade DesignationProduct FunctionMax UseChlorineDisinfection & Oxidation30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Sodium Bisulfite[1]

Trade Designation	Product Function	Max Use
Aqua Guard Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite 38%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals. The maximum recommended allowable

residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L)

Sodium Hydroxide

Trade Designation	Product Function	Max Use
Caustic Soda	Corrosion & Scale Control	100 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Rayon Grade Caustic Soda 50%	Corrosion & Scale Control	100mg/L
Sodium Hydroxide	Corrosion & Scale Control	100 mg/L
Sodium Hydroxide 25%	Corrosion & Scale Control	200mg/L

Sodium Hypochlorite [CL]

Trade Designation Product Function Max Use

Aqua Guard Bleach	Disinfection & Oxidation	84mg/L
Aqua Guard Bleach 12.5%	Disinfection & Oxidation	84mg/L
Aqua Guard Chlorinating Sanitizer[2]	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5%[2]	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5%[2]	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L
Sodium Hypochlorite 10.5%[2]	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

- [2] Based on testing to the requirements of NSF/ANSI 60, use of Aqua Guard Chlorinating Sanitizer, Aqua Guard Chlorinating Sanitizer 10.5%, Aqua Guard Sodium Hypochlorite 10.5% or Sodium Hypochlorite 10.5% at a dose of 100 mg/L or less is expected to contribute a bromate residual of 0.001 mg/L or less to the finished drinking water.
- [CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility: Ranger, GA

Chlorine[CL]

Trade Designation	Product Function	Max Use
Chlorine	Disinfection & Oxidation	30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Sodium Bisulfite[1]

Trade Designation	Product Function	Max Use
Aqua Guard Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite 38%	Dechlorinator & Antioxidant	46mg/L
Sodium Bisulfite Solution	Dechlorinator & Antioxidant	46mg/L

[1] This product contains sulfite.

Sulfites have been known to cause potentially lethal allergic reactions in sulfite-sensitive individuals.

The maximum recommended allowable

residual sulfite level in the finished drinking water is 100 ppb (0.1 mg/L).

Sodium Hydroxide

Trade Designation	Product Function	Max Use
Caustic Soda	Corrosion & Scale Control	100 mg/L
Caustic Soda 25%	Corrosion & Scale Control	200mg/L
Sodium Hydroxide	Corrosion & Scale Control	100 mg/L

Max Use
84 mg/L
84mg/L
$100 \mathrm{mg/L}$
100mg/L
100mg/L
84mg/L
100mg/L
84mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Facility: Ellisville, MS

Chlorine[CL]

Trade Designation	Product Function	Max Use
Chlorine	Disinfection & Oxidation	30 mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Sodium Hydroxide

Trade Designation	Product Function	Max Use
Caustic Soda	Disinfection & Oxidation	100 mg/L
Sodium Hydroxide	Disinfection & Oxidation	100 mg/L
Sodium Hypochlorite[CL]		

Sodium Hypochiorite[CL]		
Trade Designation	Product Function	Max Use
Aqua Guard Bleach	Disinfection & Oxidation	84mg/L
Aqua Guard Bleach 12.5%	Disinfection & Oxidation	84mg/L
Aqua Guard Chlorinating Sanitizer	Disinfection & Oxidation	100mg/L
Aqua Guard Chlorinating Sanitizer 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Aqua Guard Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L
Sodium Hypochlorite 10.5%	Disinfection & Oxidation	100mg/L
Sodium Hypochlorite 12.5%	Disinfection & Oxidation	84mg/L

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Allied Universal Corporation

3901 NW 115th Avenue Miami, FL 33178 **United States** 305-888-2623

Facility: # 2 USA

Calcium Hypochlorite[CL]

Trade Designation Aqua Guard Cal Hypo Granules **Product Function** Algicide

Max Use 15mg/L

Disinfection & Oxidation

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Allied Universal Corporation

3901 NW 115th Avenue Miami, FL 33178 **United States** 305-888-2623

Facility: # 1 USA

Sodium Hypochlorite[CL]

Trade Designation Aqua Guard Chlorinating Sanitizer

Product Function Disinfection & Oxidation

Max Use 100mg/L

Bactericide

[CL] The residual levels of chlorine (hypochlorite ion and hypochlorous acid), chlorine dioxide, chlorate ion, chloramine and disinfection by-products shall be monitored in the finished drinking water to ensure compliance to all applicable regulations.

Number of matching Manufacturers is 3 Number of matching Products is 94 Processing time was o seconds