ODYSSEY
MANUFACTURING CO.

July 12, 2015

Mr. Terry Pollard
Senior Buyer
City of Leesburg
Purchasing Department
204 North 5th Street
Leesburg, FL 34748

Re: **CITY OF LEESBURG BID NO. 150451**
LIQUID SODIUM HYPOCHLORITE

Encl: (1) Bid Forms: (4 Pages)
(2) Authority to Sign Bid Letter
(3) Professional Licenses
(4) Hillsborough County Occupational License
(5) Product Specification
(6) NSF-60 Certification
(7) Product Affidavit
(8) Third Party Laboratory Analysis of Sodium Hypochlorite
(9) List of References
(10) Safety Data Sheet
(11) Odyssey Manufacturing Co. Brochure
(12) Odyssey Manufacturing Co. Process Flow Chart

Dear Mr. Pollard,

Odyssey Manufacturing Company is pleased to submit our proposal for the above referenced Invitation to Bid (ITB) for the supply of sodium hypochlorite to the City of Leesburg. In accordance with your instructions, we have enclosed one original and two copies of the "Bid Forms" and all other requested documentation. Odyssey takes no exceptions to the Specification or any of the bid documents.

Odyssey Manufacturing is pleased to offer the City of Leesburg a delivered price of $.56 per gallon for its Ultrachlor 12.5 Trade Percent sodium hypochlorite for the entire three-year initial term of the contract for the "tanker" deliveries. Enclosures (1) through (12) are provided to assist in the City of Leesburg's Bid Evaluation. Additionally, Odyssey makes the following claims or warrants:

- Enclosures (1) are required submittals as outlined in the Request for Bids.
- Enclosure (2) is an Authority to Sign Letter
- Enclosure (3) is a copy of Odyssey's professional licenses including its General Contractor and Plumbing contractor licenses
- Enclosure (4) is Odyssey's Hillsborough County Occupational License.
- Enclosure (5) is the Product Specification for Odyssey Ultrachlor sodium hypochlorite.

- Enclosure (6) is the NSF-60 certification for Odyssey Ultrachlor sodium hypochlorite.
- Enclosure (7) is a product affidavit of compliance.
- Enclosure (8) is the third party laboratory results for Odyssey Ultrachlor sodium hypochlorite as manufactured by Odyssey Manufacturing at its Tampa facility from the past ninety days.
- Orange County currently uses Odyssey Manufacturing Co. and can pull samples at any of its water treatment or wastewater treatment plants to ascertain the quality of its sodium hypochlorite. Gary Framo is the point of contact at 407-884-5131 for obtaining samples.
- Enclosure (9) is a list of References is Attached to aid in the Proposal Evaluation. Almost all of these references have used not only Odyssey Manufacturing Co. but other suppliers and we would urge you to call them and compare the safety, reliability, quality and service of Odyssey to its competitors.
- Safety is extremely important and should be a major consideration in the Utility's "informed decision process". Odyssey Manufacturing has zero "Safety Incidents" in the past five years for any chemical that it sells (defined as all chemical accidents, incidents, releases, spills, and National Response Center Notifications ("safety incidents")). Additionally, we would direct Sarasota to the National Response Center website (www.nrc.uscg.mil/download.html) and general website searches where one can download safety incidents of the various bidders. Odyssey's record is in sharp contrast to other chemical suppliers who have had numerous incidents including delivering sodium hypochlorite into acid tanks at the City of Coral Springs WTP and a Pinch a Penny Pool Store in Merritt Island in the past two years alone. Please do a website search or call our reference list to ascertain not only our record but those of other suppliers.
- Emergency Preparedness Planning, Spill Response, Technical and Engineering Support and also emergency points of contact would be our Patrick H. Allman, General Manager (cellular 813-335-3444) who has a B.S. in Nuclear Engineering 1983 from the University of Virginia, Marvin Rakes, President (813-340-3675) who has a B.S. in Chemical Engineering 1985 from the University of North Carolina State or the on-duty Plant Supervisor (800-ODYSSEY). All technical and engineering assistance would be provided at no charge. As you know, Odyssey Manufacturing Co. has provided the City of Leesburg numerous amounts of emergency and technical support along with technical assistance over the past sixteen years much of it at no charge. This information can be attested to by the current group of managers and supervisors.
- In addition to being the largest sodium hypochlorite supplier to the water and wastewater industry in Florida, Odyssey Manufacturing Co. is a licensed plumbing and general contractor who specializes in chemical system design, installation and repairs. Enclosure (3) is a copy of our plumbing and general contractor's licenses. We have installed over 2,000 chemical systems in Florida and have done service work for most of the utilities in Florida to whom we sell sodium hypochlorite including the City of Leesburg.
- We will use no subcontractors or affiliates in the performance of any work under this proposal. This is in sharp contrast to other suppliers in the marketplace all of whom use third party driving companies and who must subcontract out any service work since they are not licensed contractors.
- Enclosure (10) is a Safety Data Sheet (SDS).
- Company Brochure is attached (see enclosure (11)).
- Company Manufacturing Process Flow Chart is attached demonstrating the superiority of Odyssey's manufacturing process with regard to quality and reliability (see enclosure (12)).
- Odyssey Manufacturing Co. is a Drug Free Workplace and has an active program in-place to randomly test its employees

Over the past sixteen years, Odyssey Manufacturing Co. has provided superior service to the City of Leesburg including never missing a delivery, providing emergency support on numerous occasions and providing a significant amount of technical assistance. As you know, we are the only chemical manufacturer/distributor that is accessible and open for manufacturing and deliveries 24 hours per day and 7 days per week (including holidays) and can be reached @800-ODYSSEY or facsimile (813) 630-2589. Additionally, Odyssey Manufacturing also agrees to continue to provide unlimited technical assistance to the City of Leesburg to assist it with its operations at no charge as part of the sodium hypochlorite supply. Such assistance includes, but is not limited to, operator training sessions, startup services, site inspections on behalf of the owner, drawing review, engineering and design. As a licensed contractor, Odyssey has performed over two thousand chemical system installations in the State of Florida and assisted with numerous others in addition to providing service work, spill response and temporary systems as required.

Odyssey sets the standard for reliability in the marketplace. We have never missed a delivery in over sixteen years of service to the water and wastewater treatment industry. This should be the litmus test for reliability and should be factor in any Bid Evaluation particularly when considering a company with the same ownership and management in place for the past sixteen years. In addition to never missing a delivery, we have also made numerous emergency deliveries as well. Additionally, Odyssey has pro-actively topped off all of our customer's tanks before each hurricane over the past sixteen years!

Sodium hypochlorite is the most important chemical you purchase. Its use is mandated by an assortment of regulatory agencies and its failure can lead to severe consequences for the utility including system wide boiled water notices and hefty FDEP and EPA fines. Hypochlorite is very unique because of its essential use in water treatment, short shelf life, "just in time" delivery requirements and rapid degradation if fouled by impurities in the manufacturing process. Sodium hypochlorite is the only chemical that City of Sarasota County purchases that if you leave it in a drum for one year will be completely gone. For example, a drum of 50% caustic will still be a drum of 50% caustic after one year. A drum of 12.5% sodium hypochlorite will be salt water after one year with no disinfection capability. A drum of 50% caustic laden with 2 ppm iron and other metals will still be a drum of 50% caustic after one week (or even after one year). A drum of 12.5% sodium hypochlorite containing 2 ppm iron and other metal impurities will be a drum of 5% – 6% sodium hypochlorite after one week and thus have half the disinfection power and require twice as much to be fed.

As you know, Odyssey provides a superior product for two reasons: (1) We have a superior process; and (2) We care about quality (we just don't pay lip service to it and tell you we are "improved" or just as good as Odyssey). Frankly, if 95% of our business was pool stores to which we delivered 8% - 9% bleach laden with iron, metals, sludge and other impurities to them because they don't care about quality why would we bother to spend an extra $.20 per gallon to make the correct strength bleach and another $.05 per gallon to properly filter the bleach? Instead, I would probably target the 4% of the municipal market which buys on "price per gallon" and not the total cost when usage and maintenance is factored in and sell them the same slop. This same group doesn't care when their bleach comes late or doesn't come at all either because they continue to put up with it as long as they perceive they are paying less per gallon. It is not what a company says they will do it is what they have consistently done in the past is what you will get!

Please call our customers to compare Odyssey Ultrachlor with other suppliers! Because of its short shelf life, buying a superior quality sodium hypochlorite will result in significant savings. We have examined your specifications and can comply with all the requirements. Additionally, we hereby provide written assurance of compliance with OSHA, EPA, NSF, and AWWA regulations and

consent to provide samples to Tampa Bay Water for testing if requested. We also agree to provide a safe handling training course and "refresher courses" for **all** of your chemicals for the duration of the contract. We have never failed to or refused to make a chemical delivery for any product we have been awarded a purchase order. This is in stark contrast to other chemical manufacturers! We take no exceptions to the bid documents. You may take a sample of our sodium hypochlorite at any time from any one of your facilities or off of a truck at time of delivery. Please call me if you have any questions at 1-800-ODYSSEY or cellular (813) 335-3444 or visit our website @www.odysseymanufacturing.com. Thank you for your consideration.

Sincerely,

Patrick H. Allman
General Manager

SECTION 3 - FORMS

Complete ALL the forms in this section and submit them in a sealed envelope as your bid response.

SOLICITATION NO:	150451
TITLE:	Liquid Sodium Hypochlorite

General Vendor Information

Company Name: Odyssey Manufacturing Company

Physical Address: 1484 Massaro Blvd., Tampa, Fl. 33619

Mailing Address: same

Phone No.: 813/635-0339 Fax No.: 813/630-2589

FEIN No.: 65-0846345

Provide information regarding who may be contacted regarding the solicitation response.

Additional Contact

Name: Patrick Allman

Title: General Manager

Address: same as above

Phone No.: 813/635-0339 Fax No.: 813/630-2589 Mobile Phone No.: 813/335-3444

e-Mail Address: pallman@odysseymanufacturing.com

Additional Contact

Name: Marvin Rakes

Title: President

Address: same as above

Phone No.: 813/635-0339 Fax No.: 813-630-2589 Mobile Phone No.: 813/340-3675

e-Mail Address: mrakes@odysseymanufacturing.com

BIDDER'S CERTIFICATION

- I have carefully examined the Invitation to Bid, Instructions to Bidders, General and/or Special Conditions, Specifications, Bid Proposal and any other documents accompanying or made a part of this invitation.
- I hereby propose to furnish the goods or services specified in the Invitation to Bid at the prices or rates quoted in my bid. I agree that my bid will remain firm for the period established in the bid document in order to allow the City adequate time to evaluate the bids and make award. Furthermore, I agree to abide by all conditions of the bid.
- I certify that all information contained in this bid is truthful to the best of my knowledge and belief. I further certify that I am duly authorized to submit this bid on behalf of the vendor / contractor as its act and deed and that the vendor / contractor is ready, willing and able to perform if awarded the bid.
- I further certify that this bid is made without prior understanding, agreement, connection, discussion, or collusion with any person, firm or corporation submitting a bid for the same product or service; no officer, employee or agent of the City of Leesburg or of any other bidder interested in said bid; and that the undersigned executed this Bidder's Certification with full knowledge and understanding of the matters therein contained and was duly authorized to do so.
- I further certify that having read and examined the specifications and documents for the designated services and understanding the general conditions for contract under which services will be performed, does hereby propose to furnish all labor, equipment, and material to provide the services set forth in the Proposal.
- I hereby declare that the following listing states any clarifications, any and all variations from and exceptions to the requirements of the specifications and documents. The undersigned further declares that the "work" will be performed in strict accordance with such requirements, and understands that any exceptions to the requirements of the specifications and documents may render the bidder's proposal non-responsive.

NO EXCEPTIONS WILL BE ALLOWED AFTER THE BID IS SUBMITTED.

Please check one:

✓ I take NO exceptions

___ I take the exceptions listed here:

(If more space is needed, please indicate exceptions here and attach additional pages as needed)

___

General Manager

SCHEDULE OF BID ITEMS

ITB No: 150451

Liquid Sodium Hypochlorite

Your Bid MUST BE submitted on this form.

VENDOR NAME: Odyssey Manufacturing Company

Item No.	Item Description	Unit	Estimated Annual Quantity	Cost Per Gallon	Total Price
1	Sodium Hypochlorite	Gallon	287,255	$ .56	$ 160,862.80
			Grand Total:	$ 160,862.80	

Bidder's State license number and type:
CGC1516698 General Contractor / CFC057182 Plumbing Contractor

Include copy of license with your solicitation. Attached

Double check the Bid prices.

Amounts cannot be changed following the Bid due date and time.

ADDENDUM ACKNOWLEDGMENT

☑ No Addendum were issued.

The undersigned acknowledges receipt of the following addenda to the Invitation to Bid (indicate number and date of each):

Addendum No.	Dated:	Addendum No.	Dated:
Addendum No.	Dated:	Addendum No.	Dated:

FAILURE TO SUBMIT ACKNOWLEDGEMENT OF ANY ADDENDUM THAT AFFECTS THE BID PRICES IS CONSIDERED A MAJOR IRREGULARITY AND MAY BE CAUSE FOR REJECTION OF THE BID.

LOCAL VENDOR STATUS DECLARATION

The responding firm and firm that will enter into an agreement with the City, if selected, declares the following selected Local Vendor status. The City will verify all declarations of a Local Vendor Preference.

☐ **My Firm Qualifies as a Tier I - Local Vendor for this solicitation**
"Tier I Local Vendor" shall be defined as the primary Business Office or a Full Time Sales Office of the vendor being located within the City of Leesburg or the vendor receiving one or more Utility Services (excluding communications/Internet) from the City of Leesburg.

☐ **My Firm Qualifies as a Tier II - Local Vendor for this solicitation**
"Tier II Local Vendor" shall be defined as the primary Business Office or a Full Time Sales Office of the vendor not meeting the definition of a Tier I Local Vendor but nonetheless being located within the 20-Mile Radius as defined in this policy.

☒ **My Firm does not qualify as a local vendor**

Signatures

Odyssey Manufacturing Company
Name of Business

By:

Signature

Patrick Allman, General Manager
Printed Name & Title

813/635-0339
Telephone Number

pallman@odysseymanufacturing.com
e-mail Address

1484 Massaro Blvd.
Mailing Address

Tampa, Fl. 33619
City, State, Zip Code

ODYSSEY
MANUFACTURING CO.

March 23, 2015

Mr. Marvin Rakes
Odyssey Manufacturing Co.
1484 Massaro Boulevard
Tampa, Florida 33619

Re: **CORPORATE RESOLUTION FOR AUTHORITY TO SIGN BIDS AND CONTRACTS ON BEHALF OF ODYSSEY MANUFACTURING CO.**

To Whom It May Concern,

Odyssey Manufacturing Co. is a Delaware corporation licensed to do business in the State of Florida. Patrick H. Allman, Odyssey Manufacturing Co.'s General Manager, has the authority to sign all bid documents and contracts on behalf of Odyssey Manufacturing Company.

Sincerely,

Marvin T. Rakes
President

CORPORATE SEAL

2014 - 2015 HILLSBOROUGH COUNTY BUSINESS TAX RECEIPT

EXPIRES SEPTEMBER 30, 2015

ACCOUNT NO. 215900

RENEWAL

OCC. CODE
190.000000 Manufacturing

40 Employees

Receipt Fee	120.00
Hazardous Waste Surcharge	40.00
Law Library Fee	0.00

BUSINESS ODYSSEY MANUFACTURING CO
1484 MASSARO BLVD
TAMPA, FL 33619

2014 - 2015

NAME ODYSSEY MANUFACTURING CO
MAILING 1484 MASSARO BOULEVARD
ADDRESS TAMPA, FL 336190000

Paid 13-625-018605
09/23/2014 160.00

BUSINESS TAX RECEIPT

HAS HEREBY PAID A PRIVILEGE TAX TO ENGAGE IN BUSINESS, PROFESSION, OR OCCUPATION SPECIFIED HEREON

DOUG BELDEN, TAX COLLECTOR
813-635-5200
THIS BECOMES A TAX RECEIPT WHEN VALIDATED.

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
CGC1516698	

The GENERAL CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2016

COGDILL, MICHAEL J
ODYSSEY MANUFACTURING CO
1484 MASSARO BLVD
TAMPA FL 33619

ISSUED: 09/04/2014

DISPLAY AS REQUIRED BY LAW

SEQ # L1409040002397

RICK SCOTT, GOVERNOR

KEN LAWSON, SECRETARY

STATE OF FLORIDA
DEPARTMENT OF BUSINESS AND PROFESSIONAL REGULATION
CONSTRUCTION INDUSTRY LICENSING BOARD

LICENSE NUMBER	
CFC057182	

The PLUMBING CONTRACTOR
Named below IS CERTIFIED
Under the provisions of Chapter 489 FS.
Expiration date: AUG 31, 2016

WING, DAVID ALBERT
ODYSSEY MANUFACTURING CO
9500 134TH WAY NORTH
SEMINOLE FL 33776

ODYSSEY
MANUFACTURING CO.

ODYSSEY MANUFACTURING CO.

03/20/12

Ultra-Chlor Sodium Hypochlorite Specification
For
12.5 Trade Percent Available Chlorine

Item	Guarantees	Typical Values
Chemical Formula:	NaOCl in water	NaOCl in water
Delivered Grams per Liter:	≥120 GPL	122 - 125 GPL
Specific Gravity Range:	1.159 - 1.169	1.163 - 1.165
% by Weight Excess Sodium Hydroxide:	0.2 – 0.4	0.25 – 0.35
pH:	12.3 – 12.7	12.4 – 12.6
Weight % Available Chlorine:	≥10.4	10.55 - 10.8
Weight % Sodium Hypochlorite:	≥10.8	11.0 - 11.3
lb/gallon Available Chlorine:	≥1 lb/gallon	1.03 - 1.04 lb/gallon
Gallons required to Obtain 1lb of Chlorine:	.96 - 1 gallon	.96 - .97 gallon
Iron (Fe):	<0.30 mg/L	.1 - .2 mg/L
Copper (Cu):	<0.03 mg/L	Not detectable
Nickel (Ni):	<0.03 mg/L	Not detectable
Manganese (Mn):	<0.03 mg/L	Not detectable
Selenium (Se):	<.02 mg/L	Not detectable
Bromate:	<20 mg/L	0 – 5 mg/L
Perchlorate (At time of manufacture):	<10 mg/L	Not Detectable
Chlorate (At time of manufacture):	<2,000 mg/L	500-1,000 mg/L
Viscosity (Varies with temperature):	1.75 – 2.50 centipois	1.75 – 2.50 centipois
Specific Heat:	.90 - .94 Cal./gm/deg C	.91 - .93 Cal./gm/deg C
Thermal Conductivity:	.2 - .4 W/m/deg C	.3 - .35 W/m/deg C
Suspended Solids Test (e.g. Filter Test):	<3 minutes	.9 – 1.25 minutes
Appearance:	Greenish-yellow liquid	Greenish-yellow liquid

Note: Product is certified to meet ANSI/NSF Standard 60 and is in compliance with ANSI/AWWA Standard B300-10.

NSF International

RECOGNIZES

ODYSSEY MANUFACTURING COMPANY

TAMPA, FL

AS COMPLYING WITH ANSI/NSF 60.
PRODUCTS APPEARING IN THE NSF OFFICIAL LISTING ARE
AUTHORIZED TO BEAR THE NSF MARK.

Certification Program Accredited by the American National Standards Institute

Certification Program Accredited by RvA, the Dutch Council for Accreditation

Certification Program Accredited by the Standards Council of Canada

This certificate is the property of NSF International and must be returned upon request. To verify certification, call 800 NSF-MARK or (1) 734 769-8010.

May 4, 2000
Certificate #25070/25070B

Stan S. Hazan, General Manager
Drinking Water Additives

ODYSSEY
MANUFACTURING CO.

AFFIDAVIT OF COMPLIANCE FOR

LIQUID SODIUM HYPOCHLORITE

ITB NO. 150451

This is to certify that as required, all sodium hypochlorite to be furnished under this Bid/Proposal will comply with AWWA Standard B300-10 (the most recent standard available at the time of this Bid/Proposal) as such may be amended and also the Specification for this bid. Further, this is to certify that all sodium hypochlorite to be furnished under this Bid/Proposal will comply with NSF Standard 60 and is certified by NSF as such.

Patrick H. Allman

General Manager

Attest

Secretary

NovaChem
Laboratories, Inc

Date: 29 June 2015

Call for results over the phone
513-523-3605

Odyssey Sample Analysis Results
Received 26 June 2015

Parameter		
Wt% NaOCl	11.22	
GPL Available Chlorine	124	
Trade %	12.4	
Wt% NaOH	0.40	
Calculated pH	13.1	
Wt% Na_2CO_3	0.219	
Specific Gravity, g/mL	1.1615	
Bromate ion, mg/L	<5	DL = 5 mg/L
Chlorate ion, mg/L	730	DL = 100 mg/L
Perchlorate ion, mg/L	<10	DL = 10 mg/L
Iron, mg/L	0.09	DL = 0.02 mg/L
Copper, mg/L	<0.02	DL = 0.02 mg/L
Nickel, mg/L	<0.02	DL = 0.02 mg/L
Chloride ion, mg/L	70,900	
Sodium, g/L (estimate)	90	
Wt% Suspended Solids	0.003	
Total Dissolved Solids, g/mL	0.92	
Filter Test (1,000 mL)	0 min 58 sec (Millipore 0.8 uM, type AWWP)	

B.P. Bubnis B.P. Bubnis *29 June 2015*

5172 College Corner Pike, P.O. Box 638, Oxford, Ohio 45056
Tel: 513-523-3605, FAX: 513-523-4025
www.novachemlabs.com
E-Mail: bbubnis@novachemlabs.com

ODYSSEY
MANUFACTURING CO.

Odyssey Manufacturing Co. Sodium Hypochlorite Reference List

- Gerry Erb, Bonita Springs Utilities, RO Chief Operator, 239-390-4823
- Andy Fenske, City of Cape Coral, Chief Operator, 239-574-0877
- David Hawkins, Sarasota County, Bee Ridge WRF Supt., 941-316-1288
- Andrew Greenbaum, Operations Manager, Tampa Bay Water, 813-929-4551
- John Bullard, City of Delray Beach, WT Plant Manager, 561-243-7317
- Craven Askew, City of St. Petersburg, NE WWTP Supt., 727-893-7779
- Kenny Wise, City of St. Petersburg, SW WWTP Supt., 727-893-7497
- Troy Howell, City of Cocoa WT Plant, Superintendent, 407-568-5867
- Phil Hyer, City of Pompano Beach, WTP Superintendent, 954-545-7030
- Albert Jernej, City of Deerfield Beach, WTP Chief Operator, 954-480-4369
- Gary Framo, Orange County, Western Region WTP Manager, 407-884-5131
- Bill Washington, Pinellas County, South Cross Bayou WRF Superintendent, 727-582-7012

ODYSSEY
MANUFACTURING CO.

SAFETY DATA SHEET

REVISED 4/06/13

SECTION I - CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

1.1 Product identifier
Product name: Ultra-CHLOR
Product code(s):
Synonyms: Sodium Hypochlorite Solution, Bleach Solution, Bleach Liquor, Hypo-solution, Bleach, Liquid Bleach
REACH Registration Number: The materials in this product have been registered according to Regulation (EC) 1907/2006.

1.2 Relevant identified uses of the substance or mixture and uses advised against
Uses: Cleaner, Disinfectant, Biocide and Sanitizer
Uses Advised Against: None

1.3 Details of the Supplier and of the Safety Data Sheet (SDS)
Odyssey Manufacturing Co.
1484 Massaro Boulevard
Tampa, Florida 33619
+1-813-635-0339 (24 hours)

1.4 Emergency telephone number:
1-800-ODYSSEY (Florida)
1-813-635-0339 (Outside Florida)
1-813-340-9093 (Control Room Cell Phone)

SECTION II - HAZARDS IDENTIFICATION

2.1 Classification of substance or mixture
Classification REGULATION (EC) No 1272/2008
Skin Corrosiveness: 1B; Skin Irritant: 2
Eye Irritant: 2
Aquatic Acute: 1
Description: Clear, greenish-yellow liquid; chlorine-like odor. Irritating to eyes, skin and respiratory system. Can cause burns to all areas contacted.

2.2 Label elements
Labeling Regulation (EC) No 1272/2008
Hazard pictograms


Signal word: DANGER
Hazard statements:

H314 – Causes severe skin burns and eye damage
H319 – Causes serious eye irritation
H400 – Very toxic to aquatic life
[Prevention] P260 – Do not breathe dusts or mists.
P264 – Wash hands or any exposed skin areas thoroughly after handling.
P273 – Avoid release to the environment.

P280 – Wear protective gloves/protective/clothing/eye protection/face protection.

[Response] P301 + P330 + P331 – IF SWALLOWED: Rinse mouth. Do NOT induce vomiting.
P303 + P361 + P353 – IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P363 – Wash contaminated clothing before reuse.
P304 + 340 – IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P310 – Immediately call a POISON CENTER or doctor/physician.
P305 + P351 + P338 – IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337 – If eye irritation persists: Get medical advice/attention.
P391 – Collect spillage.

[Storage] P405 – Store locked up.

[Disposal] P501 – Dispose of container in accordance with local/regional/national/international regulations.

Classification according to Directive 67/548/EEC or Directive 1999/45/EC

 C - Corrosive  N- Dangerous for the environment

Risk phrases:
R31 – Contact with acids liberates toxic gas.
R34 – Causes burns.
R36/38 – Irritating to eyes and skin.
R50 – Very toxic to aquatic organisms.

Safety phrases:
S1/2 – Keep locked up and out of the reach of children.
S26 – In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 – After contact with skin, wash immediately with plenty of soap-suds.
S37/39 – Wear suitable gloves and eye/face protection.
S45 – In case of accident or if you feel unwell, seek medical advice immediately (Show the label whenever possible).
S50 – Do not mix with acids or other incompatible materials (refer to section 10).
S60 – This material and its container must be disposed of as hazardous waste.

Additional labeling: EUH031 – Contact with acids liberates toxic gas.

SECTION III - COMPOSITION, INFORMATION ON INGREDIENTS

3.1 Substances
Chemical nature: Sodium hypochlorite, aqueous solution

% by Weight	Ingredient	CAS Number	EC Number	Index Number	EC Classification
10.0 – 20.0	Sodium Hypochlorite	7681-52-9	231-668-3	017-011-00-1	C, R34; R31: N, R50
0.1 – 0.4	Sodium Hydroxide	1310-73-2	215-185-5	011-002-00-6	Xi, 36/38
79.7 89.9	Water	7732-18-5	231-791-2		

3.2 Mixtures - Not applicable

SECTION IV - FIRST AID MEASURES

4.1 Description of first aid measures

Inhalation: If product vapors or mists cause respiratory irritation or distress, move the exposed person to fresh air immediately. If breathing is difficult or irregular, administer oxygen; if respiratory arrest occurs, start artificial respiration by trained personnel. Loosen tight clothing such as a collar, tie, belt or waistband. If symptoms persist, seek medical attention immediately.

Eyes: Immediately flush eyes with large amounts of water for 15 minutes, occasionally lifting upper and lower lids. Remove contact lenses after the first 5 minutes and continue washing. Obtain immediate medical attention, preferably from an ophthalmologist.

Skin: Flush skin with large amounts of water while removing contaminated clothing. Wash affected area with soap and water. Wash contaminated clothing and shoes thoroughly before reuse. Seek prompt medical attention if rash develops.

Ingestion: Rinse mouth with water. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention immediately.

4.2 Most important symptoms and effects, both acute and delayed

Potential health symptoms and effects

Eyes: Causes severe eye irritation and burns. Symptoms include redness, pain, itching, burning sensation and tearing. Material is extremely destructive to eyes, mucous membranes and surrounding tissues.

Skin: Causes severe skin irritation and burns. Symptoms include redness, pain, itching and burning sensation. May be harmful if absorbed through the skin.

Inhalation: Vapors and mists may be harmful is inhaled, causing sore throat and cough. Material is extremely destructive to the tissue of the mucous membranes and upper respiratory tract.

Ingestion: May cause severe gastrointestinal tract irritation with abdominal pain, burning sensation, cough, diarrhea, sore throat and vomiting. May cause burns and irritation to mucous membranes of the mouth and to tissues of the digestive tract.

Chronic: Repeated or prolonged contact with spray mist may produce chronic eye irritation, severe skin irritation and/or respiratory tract irritation leading to frequent attacks of bronchial infection.

SECTION V - FIRE FIGHTING MEASURES

5.1 Extinguishable media

Suitable methods of extinction: Material does not burn. Use fire extinguishing media appropriate for surrounding materials.

Unsuitable methods of extinction: None listed

5.2 Special hazards arising from the substance or mixture

Closed containers may explode (due to the build-up of pressure) when exposed to extreme heat. During emergency conditions overexposure to toxic decomposition products may cause a health hazard. Fire may cause the evolution of chlorine, hydrogen chloride gas and chlorine oxides. Symptoms may not be immediately apparent. Obtain immediate medical attention.

5.3 Advice for firefighters

Full protective equipment including self-contained breathing apparatus should be used. Water may be used to cool closed containers to prevent pressure build-up and possible autoignition or explosion when exposed to extreme heat. If possible, firefighters should control run-off water to prevent environmental contamination.

SECTION VI - ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Avoid breathing vapors/mists. Avoid contact with skin and eyes. Wear appropriate protective clothing designated in Section 8. Ventilate the area. Evacuate personnel to safe areas.

6.2 Environmental precautions

Avoid dispersal of spilled material or run-off and prevent contact with soil and entry into drains, sewers or waterways. Contain and recover liquid when possible.

6.3 Methods and materials for containment and cleaning up

Cover drains. Cover with a large quantity of inert absorbent (e.g. sand, vermiculite, kitty litter, dry earth). Do not use combustible materials such as saw dust. Collect product using a shovel and place into approved container for proper disposal as hazardous waste. For large spills use water spray to divert vapor drift. Observe possible material restrictions (section 7.2 and 10.5). Clean contaminated area with water. Do not mix with other cleaning agents that may liberate chlorine gas vapors.

US Regulations (CERCLA) require reporting spills and releases to soil water and air in excel of reportable quantities. Reportable quantity (RQ) for hypochlorite solutions is 45.36 kg (100 lbs).

Reportable Quantity (RQ): 100 lbs or 45.36 kg (approximately 100 gal or 378.5 L of Odyssey Ultrachlor 12.5 Trade Percent sodium hypochlorite). In the event of a spill (e.g. defined as any release to the environment), call Odyssey Manufacturing and/or the emergency contact numbers as soon as possible for assistance.

For releases higher than the Reportable Quantity (RQ), you must notify the State Emergency Response Commission at *(800) 320-0519* ***AND the National Response Center at *(800) 424-8802 or (202) 267-2675 within 15 minutes*!!!***

Plan in advance for an occupational release and have necessary equipment and neutralization agents on-site. Contact Odyssey Manufacturing for assistance.

6.4 Reference to other sections

For indications about waste treatment, see section 13.

SECTION VII - HANDLING AND STORAGE

7.1 Precautions for safe handling

Observe label precautions. Avoid contact with skin and eyes. Wear all appropriate protective equipment specified in Section 8. Wash thoroughly after handling. Keep containers closed when not in use. Use proper equipment for listing and transporting all containers.

Advice on protection against fire and explosion

Material is non-flammable and non-combustible.

7.2 Conditions for safe storage, including any incompatibilities

Keep in cool, dry, ventilated storage areas in closed containers. Protect against physical damage. Isolate from incompatible substances. Do not store near acids, heat, oxidizable materials or organics.

Store in a receptacle equipped with a vent. Transfer only to approved containers having correct labeling. Containers that have been opened should be carefully resealed and kept upright to prevent leakage. Do not take internally. Keep locked up and out of reach of children.

7.3 Specific end uses

Apart from the uses mentioned in section 1.2, no other specific uses are stipulated.

SECTION VIII - EXPOSURE CONTROLS AND PERSONNEL PROTECTION

8.1 Control parameters

Components	CAS Number	OSHA	ACGIH	AIHA (WEEL)
Sodium Hypochlorite	7681-52-9	2 mg/m^3 TWA; skin	0.5 ppm as CL_2 TWA; 1 ppm as CL_2 STEL, A4	2 mg/m^3 STEL
Sodium Hydroxide	1310-73-2	2 mg/m^3 TWA	2 mg/m^3 Ceiling	

8.2 Exposure controls

Engineering Measures: Technical measures and appropriate working operations should be given priority over the use of personal protective equipment. Use adequate ventilation. Local exhaust is preferable. See section 7.1.

Individual protection measures: Wear protective clothing to prevent repeated or prolonged contact with product. Protective clothing needs to be selected specifically for the workplace, depending on concentrations and quantities of hazardous substances handled. The chemical resistance of the protective equipment should be enquired at the representative supplier.

Hygiene measures: Facilities storing or using this material should be equipped with an eyewash station and safety shower. Change contaminated clothing. Preventive skin protection is recommended. Wash hands thoroughly after use, before eating, drinking or using the lavatory and at the end of the workday.

Eye/face protection: Wear tightly fitting protective goggles and a face shield (8-inch minimum). Refer to 29 CFR 1910.133, ANSI Z87.1 or European Standard EN 166.

Hand Protection: Wear gloves recommended by glove supplier for protection against materials in section 3. Gloves must be inspected prior to use. Gloves should be impermeable to chemicals and oil. Breakthrough time of selected gloves must be greater than the intended use period. Use proper glove removal technique (without touching glove's outer surface) to avoid skin contact with this product.

Other protective equipment: Wear impervious, protective chemical resistant clothing including boots, gloves, lab coat, apron or coveralls as appropriate to the situation to prevent skin contact.

Respiratory Protection: Always use an approved respirator when vapor/aerosols are generated. Where risk assessment shows air-purifying respirators are appropriate use a full-faced respirator with multi-purpose combination (US) or type ABEK (EN 14387) respirator cartridges as a backup to engineering controls. If the respirator is the sole means of protection, use a full-face supplied air respirator. Use respirators and components tested and approved under appropriate government standards such as NIOSH (US) or CEN (EU).

Environmental exposure controls: Do not empty into drains.

SECTION IX - PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	Clear, greenish yellow colored liquid
Odor	Pungent, chlorine-like
Odor Threshold	No data available
Molecular Weight	74.44 (sodium hypochlorite)
Chemical Formula	NaOCl (sodium hypochlorite)
pH	11 – 13
Freezing Point	-13.9° C (7° F)
Initial Boiling Point	100° C (212° F) – lowest known value
Evaporation Rate	<1 (BuAc = 1)
Flammability (solid, gas)	No data available
Flash Point	No data available
Autoignition Temperature	No data available
Decomposition Temperature	110° C (230° F)
Lower Explosive Limit (LEL)	No data available
Upper Explosive Limit (UEL)	No data available
Vapor Pressure	No data available
Vapor Density	No data available
Relative Density	1.15 – 1.17 g/ml (9.597 – 9.764 lb/gal) @ 60 ° F
Viscosity	No data available
Solubility in Water	Complete
Partition Coefficient: n-octanol/water	No data available
Volatiles by Volume @ 70° F	No data available; decomposes leaving salt solution

9.2 Other data - No data available

SECTION X - STABILITY AND REACTIVITY

10.1 Reactivity

Slowly decomposes on contact with air. Rate increases with the concentration and temperature. Exposure to sunlight accelerates decomposition.

10.2 Chemical stability

Stable under recommended storage conditions. Slowly decomposes on contact with air. Rate increases with the concentration and temperature. Exposure to sunlight accelerates decomposition. Sodium hypochlorite becomes less toxic with age.

10.3 Possibility of hazardous reactions

Avoid excessive heat and sources of ignition. Flammable hydrogen may be generated from contact with metals such as: aluminum, brass, tin, zinc and alloys of these metals. Avoid contact with acids, halogenated organics, organic nitro compounds and glycols. Hazardous gases may be generated from contact with acids, ammonium hydroxide (aqua ammonia) or cleaners containing ammonia compounds. Violent reactions may occur with some organic compounds. Sodium hypochlorite reacts readily with various reducing sugars (e.g. fructose, galactose, maltose, dry whey solids) to produce carbon monoxide.

Precautions should be taken including atmospheric monitoring of the tank to ensure safety of personnel. Hazardous polymerization will not occur.

10.4 Conditions to avoid

Light, heat, air and contact with incompatible materials (see section 10.5).

10.5 Incompatible materials

Ammonia, amines, ammonium salts, aziridine, methanol, phenyl acetonitrile, cellulose, ethyleneimine, organic materials, oxidizable metals/powdered metals, acids, soaps and bisulfates. Forms shock-sensitive mixtures with certain other materials.

10.6 Hazardous decomposition products

Thermal decomposition products include chlorine gas, hydrogen chloride gas, hydrochloric acid, sodium oxide. Decomposition rate increases with temperature.

SECTION XI - TOXILOGICAL INFORMATION

11.1 Information on toxicological effects

Acute Oral Toxicity (Sodium Hypochlorite)

TDLo - 1gm/ kg oral (woman)
TDLo - 45mg/kg intravenous (man)
LD_{50} - 5,800 mg/kg (mouse)
LD_{50} - 140 mg/kg - 9 week(s) continuous oral (rat)

Acute inhalation toxicity

May cause severe bronchial irritation, sore throat with possible blistering, coughing, stomatitis, nausea, labored breathing, shortness of breath and pulmonary edema. 10-20 mg/m3 causes burning of the nose and throat; 40-60 mg/m3 may be fatal. If sufficient amounts are absorbed, may cause effects as detailed in acute ingestion.

Acute dermal toxicity

Extent of damage depends on concentration, pH, and volume of solution and duration of contact. May cause redness, pain, blistering, itchy eczema and chemical burns. Sensitization reactions are possible in previously exposed persons.

Skin irritation

Skin irritation - 24 h (Rabbit)

Eye irritation

Rabbit, Adult – 10 mg, moderate irritation

May cause redness, pain, and blurred vision. Solutions of 5% splashed in human eyes have caused a burning sensation and later only slight superficial disturbance of the corneal epithelium which cleared completely in the next day or two without special treatment. However, one animal study reports a 5% solution causing only moderate irritation with clearing within 7 days. A higher concentration of 15% tested on rabbit eyes caused immediate severe pain, hemorrhages, rapid onset of ground-glass appearance of the corneal epithelium, moderate bluish edema of the whole cornea, chemosis and discharge for several days. Such eyes have sometimes healed in 2-3 weeks with slight or no residual corneal damage but they had neovascularization of the conjunctiva and distortion of the nictitating membrane by scarring.

Sensitization

May cause allergic skin reaction

Genotoxicity in vitro

No data available

Mutagenicity

Mutation in micro organisms – Salmonella typhimurium 1mg / plate (-S9)
DNA repair – Escherichiacoli 20 µg/ disc;
DNA damage – Esoherichiacoli 420 µmol/L;
Phage inhibition capacity – Esoherichiacoli 103 µg/ well
Micronucleus test - non-mammalian species multiple 200 ppb
Cytogenetic analysis - non-mammalian species multiple 120 µg/ L

Cytogenetic analysis – human lymphocyte 100 ppm 24hour(s)
Sister chromatid exchange – human embryo 149 mg/ L
Cytogenetic analysis – hamster lung 100 mg/ L

Aspiration hazard

No test data available. Risk of serious damage to lungs by aspiration.

Specific organ toxicity - single exposure

No data available

Specific organ toxicity - repeated exposure

May cause allergic skin reactions, dermatitis (allergic and contact) and asthma or bronchitis. Sensitization reactions are reported in individuals who are exposed in small amounts through their water supply. High doses have caused sperm abnormality in mice.

Additional information

RTECS: Not available

11.2 Further information

Ingestion: May cause irritation and erosion of the mucous membranes, vomiting (possibly bloody) and abdominal pain and spasms. A drop in blood pressure, shallow respiration, edema (possibly severe) of pharynx, larynx, and glottis, confusion, convulsions, delirium and coma may occur. Cyanosis and circulatory collapse are possible. Esophageal or gastric perforation and strictures are rare. Death may occur, usually due to complications of severe local injury such as toxemia, shock, perforations, hemorrhage, infection and obstruction. Massive ingestions may produce fatal hyperchloremic metabolic acidosis or aspiration pneumonitis.

Further data: Handle in accordance with good industrial hygiene and safety practice.

Chronic Effects

Persons with impaired respiratory function may be more susceptible to the effects of this substance.

Sodium Hypochlorite (hypochlorite salts) is listed by IARC as a Group 3 Carcinogen – Not classifiable as to its carcinogenicity to humans. Sodium Hydroxide is not listed by IARC. None of the components of this product are listed as carcinogens by ACGIH, IARC, NTP or OSHA. No data is available regarding its mutagenicity and/or teratogenicity of this material, nor is there any available data that indicates it causes adverse developmental and/or fertility effects.

SECTION XII - ECOLOGICAL INFORMATION

12.1 Toxicity Aquatic Ecotoxicity:

This product is very toxic to aquatic organisms.

Aquatic Ecotoxicity:

Acute and prolonged toxicity to fish:	LC_{50} – Pimephales promelas (Fathead minnow) 96 h: 0.22 – 0.62 mg/L LC_{50} – Oncorhynchus clarki (Cutthroat trout) 96 h: 0.94 µg/L (mortality)
Acute toxicity to aquatic invertebrates:	EC_{50} – Daphnia magna (Water flea), 96 h: 2.1 mg/L LC_{50} – Protozoan phylum (Protozoa), 7 h: 31.6 µg/L
Acute toxicity to aquatic plants:	LC_{50} – Algae, phytoplankton, algai mat (Algae), 96 h: 90 µg/L (mortality) EC_{50} – Desmodesmus subspicatus (Green algae), 24 h: 28 mg/L
Acute phytotoxicity, aquatic plants:	Biomass reduction – Potamogeton crispus (Curled pond weed), 35h: 23 µg/L
Acute toxicity, miscellaneous aquatic:	Chlorophyll Threshold, Aquatic community, 28 d: 2.1 µg/L

12.2 Persistence and degradability

Biodegradability

The methods for determining the biological degradability are not applicable to inorganic substances.

12.3 Bioaccumulation potential

Partition coefficient, n-octanol in water: Data not available

Bioaccumulation is not expected

12.4 Mobility in soil

Product is mobile in water.

12.5 Results of PBT and vPvB assessment

PBT/vPvB assessment is not available as chemical safety assessment was not conducted.

12.6 Other adverse effects

Additional ecological information

This material is a very toxic to aquatic life. Do not allow material to run into surface waters, wastewater or soil.

SECTION XIII - DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

The generation of waste should be avoided or minimized whenever possible. This material is subject to disposal regulations under U.S. EPA 40 CFR Parts 261 and 262. Container should be disposed of in a safe way as empty containers may contain product residue. Leave chemicals in original containers. No mixing with other waste. Handle unclean containers like the product itself. Incinerate in an approved facility. Do not incinerate closed container. Dispose of in accordance with the Directive 2008/98/EC as well as other national, federal, state/provincial and local laws and regulations.

No waste code according to the European Waste Catalogue can be assigned for this product, as the intended use dictates the assignment. The waste code is established in consultation with the regional waste disposer.

SECTION XIV - TRANSPORT INFORMATION

US DOT (Domestic Ground Transportation)

Proper Shipping Name:	Hypochlorite Solutions
Hazard Class:	8
Packing Group:	III
NAERG:	Guide #157
Packaging Authorizations:	Non-Bulk: 49 CFR 172.203; Bulk: 49 CFR 172.241
Packaging Exceptions:	49 CFR 173.154

IMO/IMDG (Water Transportation)

Proper Shipping Name:	Hypochlorite Solutions
Hazard Class:	8
UN/NA#:	UN1791
Packing Group:	III
Marine Pollutant:	NO
EMS Number:	F-A, S-B

ICAO/IATA (Air Transportation)

Proper Shipping Name:	Hypochlorite Solutions
Hazard Class:	8
UN/NA#:	UN1791
Packing Group:	III
Quantity Limitations:	49 CFR 175.75 - Cargo Aircraft Only: 60L . Passenger Aircraft: 5L

RID/ADR (Rail Transportation)

Proper Shipping Name:	Hypochlorite Solutions
Hazard Class:	8
UN/NA#:	UN1791
Packing Group:	III

Marine Pollutant: No
Signal Word: DANGER
Hazard Symbols: GHS05, GHS09 (GHS); C, N (EEC)





SECTION XV - REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for substance or mixture

U. S. Federal Regulations

OSHA Hazard Communication Standard: This material contains "Hazardous Chemicals" as defined by the OSHA Hazard Communication Standard (29 CFR 1910.1200). CORROSIVE

OSHA PSM: Not regulated under OSHA Process Safety Management Standard (PSM) 29 CFR 1910.119

EPA RMP: Not regulated under EPA Risk Management Standard (RMP) 40 CFR Part 68

EPA FIFRA: This product is a registered Pesticide under the Federal insecticide, Fungicide and Rodenticide Act (FIFRA) 40 CFR Part 150

TSCA Status: All components of this product are listed on the Toxic Substance Control Act (TSCA) Inventory. This product not subject to TSCA 12(b) Export Notification.

Superfund Amendments and Reauthorization Act (SARA)

SARA Section 311/312 Hazard Categories: This product is subject to the reporting requirements of Section 311/312 of the Emergency Planning and Community Right-to Know Act of 1986.

Acute: Yes **Chronic:** No **Fire:** No **Reactive:** No

SARA 313 Information: None of the chemicals in this product exceed the threshold (de minimis) reporting levels established by Section 313 of the Emergency Planning and Community Right-to Know Act of 1986.

SARA 302/304 Extremely Hazardous Substance: No components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

SARA 302/304 Emergency Planning & Notification: No components of the product exceed the threshold (de minimis) reporting levels established by of these sections of Title III of SARA.

Comprehensive Response Compensation and Liability Act (CERCLA): This product contains the following CERCLA reportable substances:

Sodium Hypochlorite (CAS # 7681-52-9), RQ – 45.36 kg (100 lbs)

Sodium Hydroxide (CAS # 1310-73-2), RQ – 453.59 kg (1,000 lbs)

**Special Note: The Reportable Quantity (RQ) of Ultra-CHLOR Solution is approximately 100 gallons*

Clean Air Act (CAA)

This product does not contain any chemicals that are listed as Hazardous Air Pollutants (HAPs) designated in CAA Section 112 (b).

This product does not contain any Class 1 Ozone depletors.

This product does not contain any Class 2 Ozone depletors.

Clean Water Act (CWA)

Sodium hypochlorite, sodium hydroxide and hypochlorite solutions are listed as Hazardous Substances under the CWA.

None of the chemicals in this product are listed as Priority Pollutants under the CWA.

None of the chemicals in this product are listed as Toxic Pollutants under the CWA.

U.S. State Regulations

California Prop 65, Safe Drinking Water and Toxic Enforcement Act of 1986: This product contains no chemical(s) known to the state of California to cause cancer or other reproductive harm.

Other U.S. State Inventories:

Sodium hypochlorite (CAS #7681-52-9) is found on the following State Hazardous Substance Inventories and/or Right-to-Know lists: CA, DE, MA, MN, NY, NJ, PA.

Sodium hydroxide (CAS #1310-73-2) is found on the following State Hazardous Substance Inventories and/or Right-to-Know lists: CA, DE, ID, MA, MN, NY, NJ, PA, WA, WI .

Canada

WHMIS Hazard Symbol and Classification:

Class E – Corrosive material – Corrosive to skin

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

Canadian Ingredient Disclosure List (IDL): Sodium hypochlorite and sodium hydroxide are listed on the IDL.

Canadian National Pollutant Release Inventory (NPRI): None of the ingredients in this product are listed on the NPRI.

European Economic Community

WGK, Germany (Water danger/protection): 2

Chemical Inventory Lists

Country	Inventory Name	Inventory Listing*
United States	Toxic Substance Control Act (TSCA)	Yes
Canada	Domestic Substance List (DSL).	Yes
Canada	Non-Domestic Substance List (NDSL)	Yes
Europe	Inventory of New and Existing Chemicals (EINECS)	Yes
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
New Zealand	New Zealand Inventory of Chemicals (NZIoC)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Yes
Philippines	Philippines Inventory of Chemicals and Chemical Substances (PICCS)	Yes

*"Yes" indicates that all components of this product are in compliance with the inventory requirements administered by the governing country.
*"No" indicates that one or more components of this product are not on the inventory and are not exempt from listing.

SECTION XVI - OTHER INFORMATION

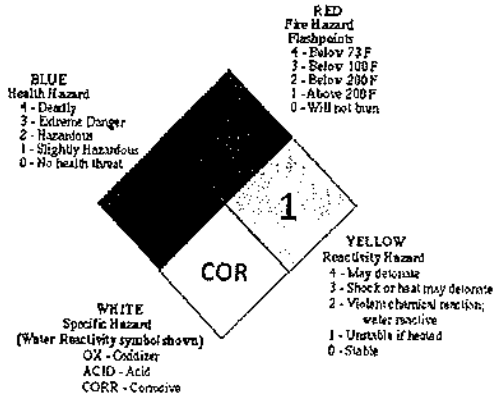
Hazardous Material Information System (HMIS)

HEALTH	2
FLAMMABILITY	0
REACTIVITY	1
PERSONAL PROTECTION	H

HMIS / NFPA Hazard Rating Legend

* = Chronic Health Hazard	2 = MODERATE
0 = INSIGNIFICANT	3 = HIGH
1 = SLIGHT	4 = EXTREME

National Fire Protection Association (NFPA)



For additional information, contact our technical service department.