



**QUESTION AND ANSWER (Q&A) TABLE RELATING TO THE
INVITATION FOR QUOTES FOR THE SUPPLY AND DELIVERY OF VARIOUS CHEMICALS***

Updated as of March 18, 2019

<http://www.wrd.org/business/water-replenishment-business.php>

*List of the various chemicals:

Liquid Ammonium Sulfate (IFQ-18-001)	Aqueous Ammonia (IFQ-18-002)
Calcium Chloride (IFQ-18-003)	Calcium Hydroxide (IFQ-18-004)
Citric Acid (IFQ-18-005)	Ferric Chloride (IFQ-18-006)
Hydrogen Peroxide (IFQ-18-007)	Orthophosphate (IFQ-18-008)
Sodium Bisulfite (IFQ-18-009)	Sodium Fluoride (IFQ-18-010)
Sodium Hydroxide (IFQ-18-011)	Sodium Hypochlorite (IFQ-18-012)
Sodium Tripolyphosphate (IFQ-18-013)	Sulfuric Acid (IFQ-18-014)

	QUESTION	RESPONSE
	General Questions:	
1.	Is the Water Replenishment District considered a public water company or a private water company?	The Water Replenishment District of Southern California is a State Special District that was established in 1959 under the California Water Code (Division 18, §60000 through §60622).
2.	<p>Exhibit A – Background and Specifications, Section 1.0 – Background, Table 3:</p> <p>For Sodium Fluoride, the estimated annual requirement is 20,000/gallons/wet and is to be delivered in 50 LB bags. Can you tell me if the 20,000/gallons should have read 20,000/LBS? If not, what formula do you use to convert the gallons to pounds?</p>	<p>The estimated usage is based on the units of lbs of sodium fluoride – not gallons. The District is looking for quotations based on price per pound of material.</p> <p>As provided in Addendum No.1 for IFQ-18-010, Table 3 in Section 1.0 of Exhibit A was revised to indicate the approximate annual consumption of Sodium Fluoride at the Goldsworthy Desalter is 20,000 lbs., not 20,000 gallons. For convenience, the revised (redline) Table 3 is attached to this Q&A table.</p>



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	QUESTION	RESPONSE
	IFQ Specific Questions:	
3.	IFQ -18-006 – Ferric Chloride: Do you have a current bid tab for ferric chloride? I see ferric chloride only listed for LVL and it says estimated quantity is “0”...is this correct?	The District is currently not utilizing ferric chloride at its Leo Vander Lans treatment plant, but is still accepting bids. The estimated quantity when used will be approximately 6,000 gallons annually.
4.	IFQ-18-012 – Sodium Hypochlorite: In review of IFQ-18-012, several inconsistencies as it relates to reference of solution were identified. From a gallon/industry perspective, % as Sodium Hypochlorite is the normal reference however in the body text I also observed % Available Chlorine. In most cases its assumed they're the same however they are not. Since the bid document request information specific to Percent by Weight as written on page 38 of IFQ-18-012, would it be safe to assume all other calculations can reference percent by weight versus percent as available chlorine?	Liquid Sodium Hypochlorite delivered shall be based on a strength specification of available chlorine equivalent (i.e., 12.5 percent sodium hypochlorite by weight). As explained in Addendum No.1 for IFQ-18-012, the first row of the Chemical Data Sheet (Exhibit D) was revised to insert “(Available Cl2)” after “Percent by Weight”. Please refer to Addendum No.1 for IFQ-18-012 for the revised (redlined) Chemical Data Sheet that must be submitted as part of the quote package.
5.		
6.		
7.		
8.		
9.		
10.		

**TABLE 3
GOLDSWORTHY DESALTER CHEMICAL USAGE AND STORAGE SUMMARY**

Chemical	Concentration (%)	Specific Gravity	Approx. Annual Consumption at 5 MGD Plant Production* (gallons [wet], <u>unless otherwise noted below</u>)	Number of Storage Tanks	Tank Nominal Capacity (gal)
Aqueous Ammonia	19.0	0.93	6,000	1	517
Orthophosphate	15.0	1.37	26,000	1	2,000
Sodium Fluoride (dry granules)	98.0	NA	20,000 <u>lbs</u>	0	0
Sodium Hydroxide (Caustic Soda)	30.0	1.33	18,000	1	5,117
Sodium Hypochlorite (Bleach)	12.5	1.20	63,000	1	7,100
Sulfuric Acid	93.0	1.83	0	1	7,000
Threshold Inhibitor/Antiscalant	100.0	1.08	11,000	1	750

NA = Not available

CHEMICAL DATA SHEET

Name of chemical: Sodium Hypochlorite (Liquid Bleach)

<p>Typical physical and chemical analysis of representative product to be shipped in tank trucks to WRD (must comply with Specifications).</p> <p><i>(Attach a recent Certificate of Analysis and Safety Data Sheet):</i></p>	<p>Percent by Weight (available Cl₂): _____ %</p> <p>pH: _____</p> <p>Specific Gravity @ 20°C: _____</p> <p>Assay (NaOCl): _____ %</p> <p>Iron (Fe) Turbidity: _____ ppm Nitrate (NO₃): _____ ppm</p> <p>Arsenic (As): _____ ppm Chloride (Cl): _____ ppm</p> <p>Selenium (Se): _____ ppm Lead (Pb): _____ ppm</p> <p>Heavy Metals as Lead (Pb): _____ ppm</p>
<p>Lead time for delivery (no more than 3 business days unless pre-approved by WRD):</p>	
<p>Name of producer:</p>	
<p>Brand name or product designation <i>(Attach proof of NSF/UL certification):</i></p>	
<p>Source:</p>	
<p>Signature:</p>	
<p>Date:</p>	
<p>Print Name/Title:</p>	
<p>Company:</p>	
<p>E-mail:</p>	
<p>Phone Number:</p>	
<p>Fax Number:</p>	
<p>Describe any deviations from the Specifications described in this IFQ:</p>	