

Disinfection and Water Quality Testing Plan (DWQTP)

Building ID	K
School Name	P.S. 000
Address	100 King Street, Brooklyn, NY
SCA Project ID, Design ID or LLW #	PO#####, D#####, or LLW#####
Date	6/30/23
Revision #	0
General Contractor (Co. Name, Contact Person & No.)	ABC Contractors, Inc., Attn: John Doe (917) 111-2222
Plumbing Contractor (Co. Name, Contact Person & No.)	DEF Plumbing & Heating, Inc. Attn: William Smith (917) 222-3333
Disinfection Contractor (Co. Name, Contact Person & No.)	GHI Group, Inc., Joseph Jones (917) 444-5555
Environmental Consultant (Co. name, Contract Person & No.)	XYZ Environmental Laboratories, LLC. Attn: Mike James (917) 646 5555

Project Description

Installation of cold, hot and hot water return potable piping and three new sinks (one is a direct replacement) on the second floor (Room 210)	
Project Phase (Enter Phase and # of Total Phases) (Example): 2 of 5	1 of 1
Project Type (CIP or Capacity)	CIP

Plumbing Scope (A separate DWQTP is required for exterior, interior and inactive potable water systems)

New Building	
Lease	
Inactive Building	
Alterations to Existing Interior Plumbing	X
Repair to existing service connection	
Installation of new service connection	

Disinfection Scope

Disinfectant to be used (i.e., brand name, concentration of chlorine solution; note that use of chlorine gas is not acceptable)	XYZ Cleaner (hypochlorite)		
Select one:	<input type="checkbox"/> > 50 ppm chlorine for 24 hour hold time	<input checked="" type="checkbox"/> > 200 ppm chlorine for 3 hour hold time	<input type="checkbox"/> 1-5% chlorine (Service main only)

Disinfection Contractor Certifications

The Contractor confirms the following:	Initials/Date
Pre-disinfection site visit will only be initiated after the DWQTP is submitted and 90% of the potable water piping has been roughed in.	JJ/MM-DD-YY
Disinfection work will be performed only after obtaining written approval from the IEH Division and in the presence of a representative of the IEH Division.	JJ/MM-DD-YY
Newly-installed plumbing will be isolated from existing piping during the disinfection process	JJ/MM-DD-YY
Signs will be placed on each fixture/outlet during disinfection (Attachment D)	JJ/MM-DD-YY
Pre-disinfection flushing will be performed in accordance with 3.04 at a flow rate sufficient to remove all debris or sediment from new potable water piping in the presence of an IEH Representative	JJ/MM-DD-YY
All flushing activities will be logged (Attachment E)	JJ/MM-DD-YY
Disinfectant concentration and pH will be maintained during disinfection and measured each hour	JJ/MM-DD-YY
New plumbing will be installed without allowing soil and/or other material from entering the pipe	JJ/MM-DD-YY
Sample collection and handling will comply with applicable regulatory standards	JJ/MM-DD-YY
Samples will be analyzed by a New York State Department of Health (NYSDOH) Environmental Laboratory Approval Program (ELAP) certified laboratory using approved methods.	JJ/MM-DD-YY
All work will be completed in accordance with Specification 15420	JJ/MM-DD-YY
Results of the analyses will be provided to the IEH Division within 72 hours after sampling is complete	JJ/MM-DD-YY
The following attachments have been included: <ul style="list-style-type: none"> • Attachment A – Sample Summary Tables • Attachment B – Plumbing Diagram(s) • Attachment C – Disinfectant Safety Data Sheet (SDS) • Attachment D – Fixture/Outlet Signage • Attachment E – Flushing Log • Attachment F – Dip and Rinse Procedure and Certification Letter • Attachment G – Direct Replacement Procedure and Certification Letter • ELAP Certification 	JJ/MM-DD-YY

Contractor has submitted the required Qualifications documentation as specified in 1.04A and received written approval from IEH HazMat for use of staff specified herein.	
Name of Approved Person(s) who will perform the Work on this project (include additional page, if required):	Date of NYCSCA IEH Approval:
William Smith	6/13/23
Joseph Jones	7/17/23

Signature of DWQTP Preparer (Grade C Certified Water Treatment Operator)

I certify that this document and all attachments were prepared under my direction or supervision and the information is true, accurate, and complete. All field work will be performed with my oversight.	
Printed Name	Joseph Jones
Signature	<i>Joseph Jones</i>
Date (MO/DA/YEAR)	7/15/23

Signature of Plumbing Contractor

I certify that this document and all attachments were prepared under my direction or supervision and the information is true, accurate, and complete.	
Printed Name	William Smith
Signature	<i>William Smith</i>
Date (MO/DA/YEAR)	7/18/23

Attachments:

The following attachments should be included:
<p>A. Sample Summary Tables, including:</p> <ul style="list-style-type: none">• Number of fixtures and appliances in each work area/floor• Number of samples for each work area/floor <p>B. Plumbing Diagram(s) (use of riser preferred and/or floor plan), including (two examples are provided):</p> <ul style="list-style-type: none">• New/existing cold/hot potable water piping including lengths and diameters (clearly differentiate between piping that is, and is not, subject to disinfection). Note the use of color codes for each type of pipe to be disinfected in the examples provided• Fixtures and appliance locations• Proposed locations of:<ul style="list-style-type: none">--Isolation valve(s)--Valves and fittings for disinfection purposes--Injection point(s)--Discharge point(s)--Potable plumbing components (e.g., fittings) necessary to make final connections that will be disinfected by the dip and rinse procedure--Direct replacements• Sample locations with sample IDs <p>C. Disinfectant Safety Data Sheet</p> <p>D. Fixture/Outlet Signage</p> <p>E. Flushing Log</p> <p>F. Dip and Rinse Procedure and Certification Letter</p> <p>G. Direct Replacement Procedure and Certification Letter</p> <p>H. ELAP Certification</p>

-Attachment A- Sample Summary Table

Sample Plan (building interior)

Location (floor):	#	Basement	1st	2nd	3rd	4th	5th	Total
Work Area 1	Fixtures			3				3
	Samples/Floor			2				2
Work Area 2	Fixtures							
	Samples/Floor							
Work Area 3	Fixtures							
	Samples/Floor							

Notes:

1. A minimum of 2 samples per floor or 20% of the total number of fixtures is required
2. Sample locations should be representative of the entire work area

Sample Plan (building exterior)

Location	Type of Plumbing Component	No. of Components	No. of Samples
New service connection /45 th St	Piping	10	1

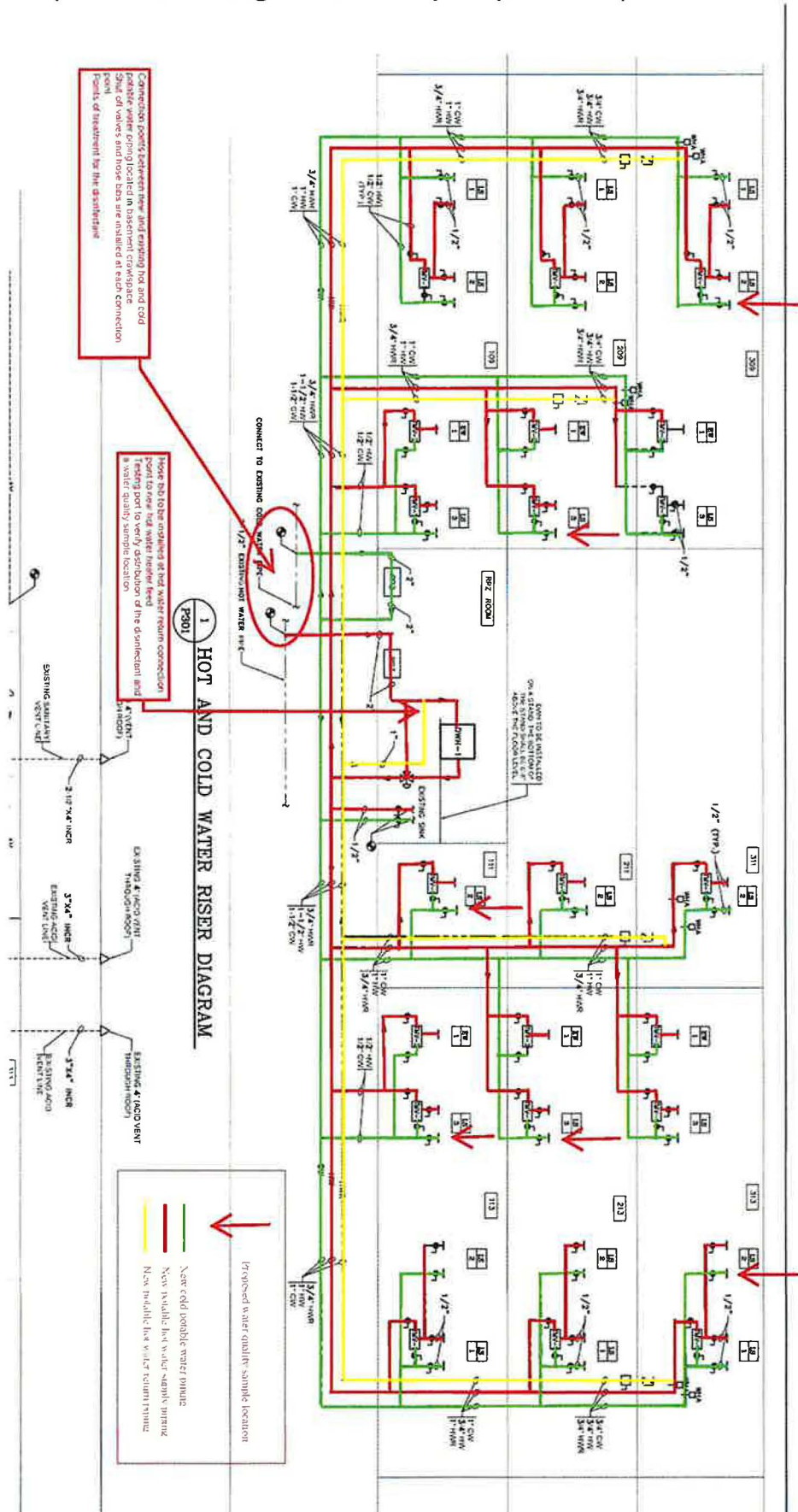
Attachment B– Plumbing Diagram (*examples provided*)

(Note: Riser diagram or floor plan preferred)

- New/existing cold/hot potable water piping including lengths and diameters (clearly differentiate between piping that is, and is not, subject to disinfection). Note the use of color codes for each type of pipe to be disinfected in the examples provided
- Fixtures and appliance locations
- Proposed locations of:
 - Isolation valve(s)
 - Valves and fittings for disinfection purposes
 - Injection point(s)
 - Discharge point(s)
 - Potable plumbing components (e.g., fittings) necessary to make final connections that will be disinfected by the dip and rinse procedure
 - Direct replacements
- Sample locations with sample IDs

Attachment B- Plumbing Diagram (examples provided)

(Note: Riser diagram or floor plan preferred)

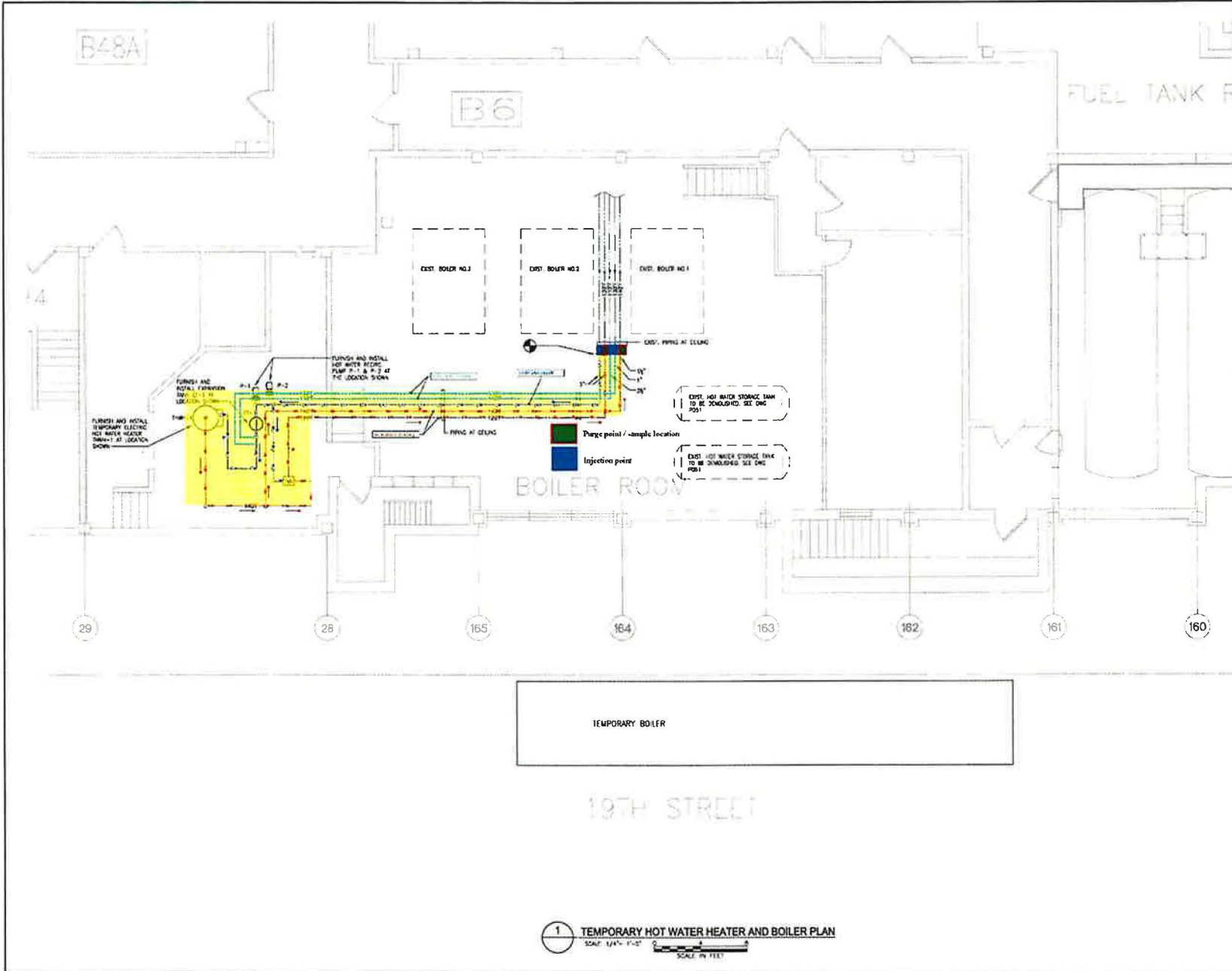


Proposed water quality sample location

←

- Hot cold potable water piping
- New potable hot water sample piping
- New potable hot water return piping

Attachment B- Plumbing Diagram (examples provided)
 (Note: Riser diagram or floor plan preferred)



President & CEO
 Lorraine O'Neil
 Board of Trustees
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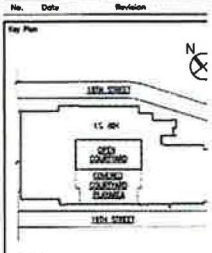


Architecture & Engineering
 E. Bruce Barrett, P.E., LEED AP, Vice President
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 Mark A. Conroy, P.E., LEED AP, Director, AEC & Home
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Consultants
 Architecture & Engineering
 URS Corporation
 One Penn Plaza, Suite 600
 New York, New York 10119

NOTE: Drawing may be printed at reduced scale

No.	Date	Revision
07/08/18		BO SUBMISSION



ICB Design Manager:	ERIC CHOU, PE
Project Architect/Engineer:	JOSH FEOK, PE, LEED AP
Designer Lead:	CHRIS LEONG, PE
Designer:	ERIK GRANITZ
Drawn by:	ERIK GRANITZ
Checked by:	JEROME SALZM
Design No.:	D015358
Facility Code:	X088
Date:	07/08

Project:
 I.S. 088, BROOKLYN BOILER REPLACEMENT AND CLIMATE CONTROL

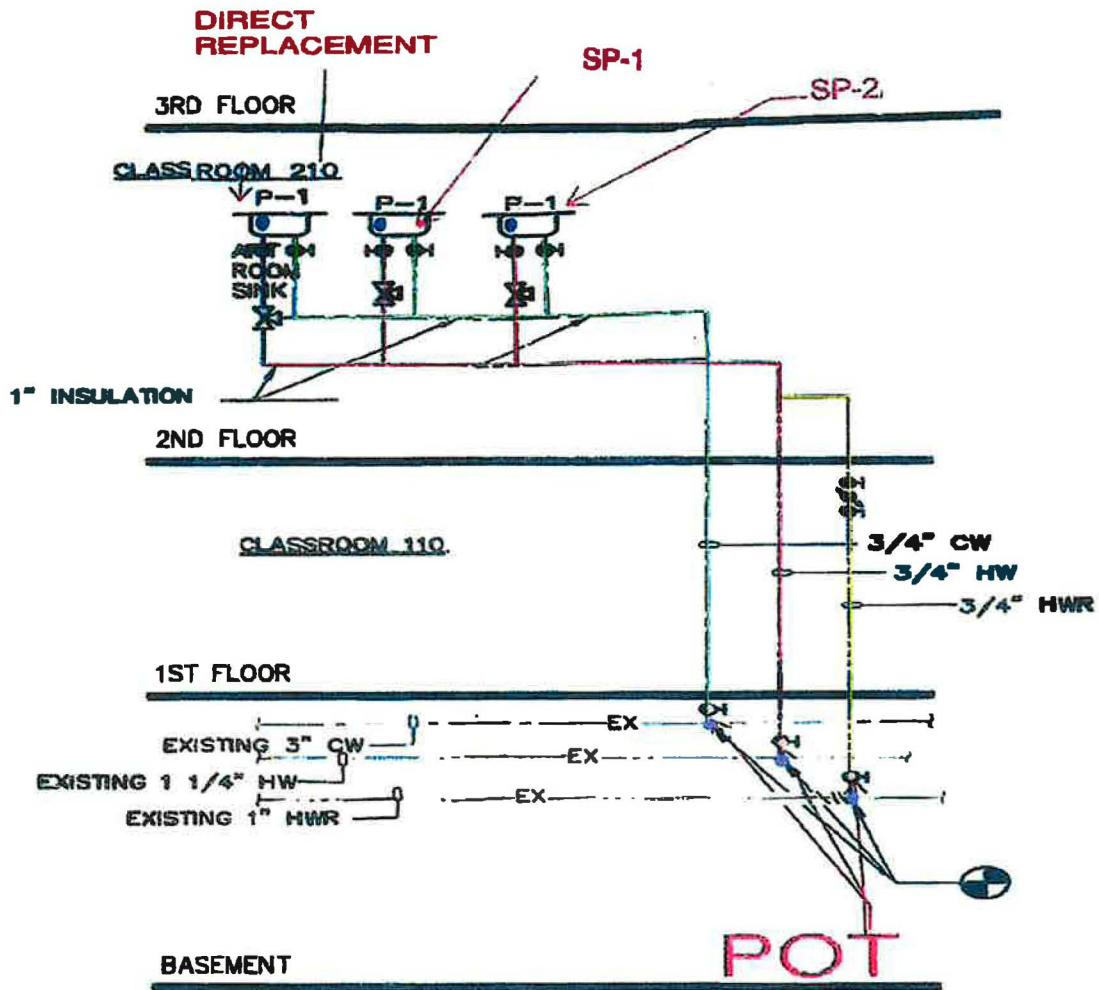
Address:
 544 7 AVENUE, BROOKLYN, NY 11215

Drawing Title:
 TEMPORARY HOT WATER HEATER AND BOILER PLAN

1 TEMPORARY HOT WATER HEATER AND BOILER PLAN
 SCALE: 1/4" = 1'-0"
 SCALE IN FEET

Drawing No. P061.0
 Sheet 14 of 67
 Sheet 14 of 67

Attachment B



N.T.S.
DOMESTIC WATER RISER DIAGRAM

Legend:	Piping:	Building ID – K000
SP - Sampling Point	CW – 15 LF	School – P.S. 000
POT - Point of Treatment	HW – 15 LF	
PP - Purge Point	HWR – 5 LF	
Color Codes:		
Green – Cold Water Pipe		
Red – Hot Water Pipe		
Orange – Hot Water Return		
Dark Blue – All Fixtures		
Pink – Sampling locations		
Yellow – Appliances		
Light Blue – Purge Points		
Purple – Shut off Valves		
Brown – Hose Bibs		

SDS Sodium Hypochlorite 12.5%
 Maximum Environmental Management, Inc.
 1170 Lincoln Avenue Suite 4
 Holbrook, NY 11741
 (631) 589-1225, Phone
 (631) 589-1157, Fax

SDS Sodium Hypochlorite

SAFETY DATA SHEET
New Haven Chlor-Alkali LLC

REVISED: 6/30/2016

1. Identification

Product identifier	Sodium Hypochlorite 12.5%-17%	
Other means of identification		
SDS number	10000022	
Synonyms	Liquid Bleach, Bleach, Hypochlorite, Super Shock, Javel Water.	
Recommended use	Swimming pool chlorinator, hard surface cleaner, mildicide, Water treatment chemical, Biocides, bleach solutions and bleach fixer solutions	
Recommended restrictions	None known.	
Manufacturer/Importer/Supplier/Distributor information		
Company name	New Haven Chlor-Alkali LLC	
Address	73 Welton St. New Haven, CT 06511	
Company name	New Haven Chlor-Alkali LLC (d/b/a H. Krevit & Company)	
Address	73 Welton St. New Haven, CT 06511	
Company name	New Haven Chemicals LLC	
Address	67 Welton St. New Haven, CT 06511	
General Information		
Telephone	(203) 772-3350	
Website	hkrevit.com	
Contact person	Wayne Bartling	
Emergency phone number	CHEMTREC	
	US: 1-800-424-9300	Canada: 1-800-567-7455

2. Hazard(s) identification

Physical hazards	Corrosive to metals	Category 1
Health hazards	Skin corrosion/irritation	Category 1
	Serious eye damage/eye irritation	Category 1
	Specific target organ toxicity, single exposure	Category 3 respiratory tract irritation
Environmental hazards	Hazardous to the aquatic environment, acute hazard	Category 1
	Hazardous to the aquatic environment, long-term hazard	Category 2
OSHA defined hazards	Not classified.	

Label elements

Signal word Danger

Hazard statement Causes severe skin burns and eye damage. May cause respiratory irritation. Very toxic to aquatic life with long lasting effects.

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Precautionary statement	
Prevention	Wear protective gloves/protective clothing/eye protection/face protection. Do not breathe mist or vapor. Use only outdoors or in a well-ventilated area. Wash thoroughly after handling. Keep only in original container. Avoid release to the environment.
Response	If swallowed: Rinse mouth. Do NOT induce vomiting. If inhaled: Remove person to fresh air and keep comfortable for breathing. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse. Absorb spillage to prevent material damage. Collect spillage.
Storage	Store in a well-ventilated place. Keep container tightly closed. Store locked up. Store in corrosive resistant container with a resistant inner liner.
Disposal	Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None known.
Supplemental information	Contact with acids liberates toxic gas.

3. Composition/information on ingredients

Mixtures

Chemical name	CAS number	%
Sodium hypochlorite	7681-52-9	12.5-17
Sodium hydroxide	1310-73-2	0.10-4.25

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Take off immediately all contaminated clothing. Wash off IMMEDIATELY with plenty of water for at least 15-20 minutes. Get medical attention immediately. Wash contaminated clothing before reuse. Call a physician or poison control center immediately.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. With eye exposure, continue flushing during transport to hospital.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire. Do not use dry extinguishing media that contains ammonium compounds.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	In case of fire and/or explosion do not breathe fumes. Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Wear appropriate personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Absorb spillage to prevent material damage. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see Section 8 of the SDS.
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Methods and materials for containment and cleaning up Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.

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

Environmental precautions Never return spills in original containers for re-use. For waste disposal, see Section 13 of the SDS. Do not discharge into drains, water courses or onto the ground. Environmental manager must be informed of all major releases.

7. Handling and storage

Precautions for safe handling Wear appropriate personal protective equipment. Do not get in eyes, on skin, on clothing. Use with adequate ventilation. Observe good industrial hygiene practices. Do not apply heat or direct sunlight. Temperature and product concentration affect product quality and decomposition rates.

Conditions for safe storage, including any incompatibilities Keep container tightly closed. Store in a cool and well-ventilated place. Store in a corrosive resistant container. Consult container manufacturer for additional guidance. Store away from and do not mix with incompatible materials such as acids, oxidizers, organics, reducing agents, and all metals except titanium.

8. Exposure controls/personal protection

Occupational exposure limits

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

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	PEL	2 mg/m3

US. ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m3

US. Workplace Environmental Exposure Level (WEEL) Guides

Components	Type	Value
Sodium hypochlorite (CAS 7681-52-9)	STEL	2 mg/m3

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

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

Individual protection measures, such as personal protective equipment

Eye/face protection Wear safety glasses with side shields (or goggles) and a face shield. Wear a full-face respirator, if needed.

Skin protection

Hand protection Wear appropriate chemical resistant gloves.

Other Wear appropriate chemical resistant clothing. Reports indicate that sodium hypochlorite can react with various fabrics usually increasing with concentration. Reactions vary significantly depending on strength of chemical, material, fabric treatment and color of dyes. FRC treated cotton has a stronger response than plain cotton. Poly blend fabrics and meta aramid fabric have a weaker response than natural fibers. Contact the Personal Protective Equipment manufacturer for specific information about their products.

Respiratory protection If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn.

Thermal hazards Wear appropriate thermal protective clothing, when necessary.

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General hygiene considerations

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

9. Physical and chemical properties

Appearance

Physical state	Liquid.
Form	Liquid.
Color	Not available.
Odor	Pungent.
Odor threshold	0.9 mg/m ³
pH	12 - 14 (25 °C/77 °F)
Melting point/freezing point	-4 °F (-20 °C) (7% solution)
Initial boiling point and boiling range	Not available.
Flash point	Not applicable.
Evaporation rate	No data available
Flammability (solid, gas)	Not available.
Upper/lower flammability or explosive limits	
Flammability limit - lower (%)	Not applicable.
Flammability limit - upper (%)	Not applicable.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.
Vapor pressure	12 mm Hg (20°C/68°F)
Vapor density	Not available.
Relative density	Not available.
Solubility(ies)	
Solubility (water)	Completely miscible
Partition coefficient (n-octanol/water)	Not available.
Auto-ignition temperature	Not applicable.
Decomposition temperature	Not available.
Viscosity	Not available.
Other information	
Bulk density	Not applicable.
Molecular formula	NaOCl
Molecular weight	74.5 g/mol

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials. Avoid ultraviolet (UV) light sources. Excessive heat. Reacts violently with strong acids. Acid contact will produce chlorine gas. Amine contact will produce chloramines.
Incompatible materials	Strong oxidizing agents. Acids. Metals. Organic compounds. Ammonia.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation Vapors and spray mist may irritate throat and respiratory system and cause coughing.
Skin contact Causes skin burns.
Eye contact Causes eye burns.
Ingestion Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhea. Ingestion may produce burns to the lips, oral cavity, upper airway, esophagus and possibly the digestive tract.

Symptoms related to the physical, chemical and toxicological characteristics Corrosive effects. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.

Information on toxicological effects

Acute toxicity Occupational exposure to the substance or mixture may cause adverse effects.

Product	Species	Test Results
Sodium Hypochlorite, 12.5-17% (CAS Mixture)		
Acute		
<i>Dermal</i>		
LD50	Rabbit	> 2 g/kg
<i>Oral</i>		
LD50	Rat	3 - 5 g/kg

Skin corrosion/irritation Causes severe skin burns and eye damage.

Serious eye damage/eye irritation Causes serious eye damage.

Respiratory or skin sensitization

Respiratory sensitization This product is not expected to cause respiratory sensitization.

Skin sensitization This product is not expected to cause skin sensitization.

Germ cell mutagenicity No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

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

IARC Monographs. Overall Evaluation of Carcinogenicity

Sodium hypochlorite (CAS 7681-52-9) 3 Not classifiable as to carcinogenicity to humans.

NTP Report on Carcinogens

Not listed.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

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

Specific target organ toxicity - single exposure May cause respiratory irritation.

Specific target organ toxicity - repeated exposure Not classified.

Aspiration hazard Not classified, however droplets of the product may be aspirated into the lungs through ingestion or vomiting and may cause a serious chemical pneumonia.

Chronic effects Prolonged or repeated overexposure causes lung damage.

Further information Prolonged inhalation may be harmful.

12. Ecological information

Ecotoxicity Very toxic to aquatic life with long lasting effects.

Product	Species	Test Results
Sodium Hypochlorite, 12.5-17%		
Aquatic		
Crustacea	LC50 Daphnia	1 mg/l
Fish	LC50 Bluegill (Lepomis macrochirus)	0.6 mg/l, 48 hours

Persistence and degradability No data is available on the degradability of this product.

Bioaccumulative potential	No data available for this product.
Mobility in soil	Not available.
Other adverse effects	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. This material and its container must be disposed of as hazardous waste. Do not allow this material to drain into sewers/water supplies. Do not contaminate ponds, waterways or ditches with chemical or used container. Dispose of contents/container in accordance with local/regional/national/international regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues / unused products	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner (see: Disposal instructions).
Contaminated packaging	Since emptied containers may retain product residue, follow label warnings even after container is emptied. Empty containers should be taken to an approved waste handling site for recycling or disposal.

14. Transport information

DOT

UN number	UN1791
UN proper shipping name	Hypochlorite solutions
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.
Special provisions	IB3, N34, T4, TP2, TP24
Packaging exceptions	154
Packaging non bulk	203
Packaging bulk	241

IATA

UN number	UN1791
UN proper shipping name	Hypochlorite solution
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental hazards	Yes
ERG Code	8L
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

IMDG

UN number	UN1791
UN proper shipping name	HYPOCHLORITE SOLUTION
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Label(s)	8
Packing group	III
Environmental hazards	
Marine pollutant	Yes
EmS	F-A, S-B
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling. Read safety instructions, SDS and emergency procedures before handling.

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SDS Sodium Hypochlorite

Transport in bulk according to
Annex II of MARPOL 73/78 and
the IBC Code

15. Regulatory information

US federal regulations

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.
All components are on the U.S. EPA TSCA Inventory List.

CERCLA Hazardous Substance: Sodium Hypochlorite, CAS # 7681-52-9, RQ = 100 lbs
CERCLA Hazardous Substance: Sodium Hydroxide, CAS # 1310-73-2, RQ = 1000 lbs.

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

Not regulated.

OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)

Not listed.

CERCLA Hazardous Substance List (40 CFR 302.4)

Sodium hydroxide (CAS 1310-73-2)	LISTED
Sodium hypochlorite (CAS 7681-52-9)	LISTED

Superfund Amendments and Reauthorization Act of 1986 (SARA)

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

SARA 302 Extremely hazardous substance

Not listed.

SARA 311/312 Hazardous chemical	Yes
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SARA 313 (TRI reporting)

Not regulated.

Other federal regulations

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

Not regulated.

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

Not regulated.

Safe Drinking Water Act (SDWA)	Not regulated.
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US state regulations

US. Massachusetts RTK - Substance List

Sodium hydroxide (CAS 1310-73-2)
Sodium hypochlorite (CAS 7681-52-9)

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

Sodium hydroxide (CAS 1310-73-2)
Sodium hypochlorite (CAS 7681-52-9)

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

Sodium hydroxide (CAS 1310-73-2)
Sodium hypochlorite (CAS 7681-52-9)

US. Rhode Island RTK

Sodium hydroxide (CAS 1310-73-2)
Sodium hypochlorite (CAS 7681-52-9)

US. California Proposition 65

This product is not listed, but it may contain elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 Safe Drinking Water and Toxic Enforcement Act.



(This SDS follows the GHS format)

SODIUM HYPOCHLORITE

(15% by volume – 12.5% by weight)

SDS NUMBER: KCC – HYPO - 001

SDS DATE: June 6, 2022

24 HOUR EMERGENCY PHONE NUMBER: **(973) 589-0700**
Alt. (551) 200-2751
CHEMTREC – (800) 424-9300

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: Hypochlorite Solution

Chemical Name: Sodium Hypochlorite

CAS Number: 7681-52-9

Common Names: Chlorine Bleach, Soda Bleach

Chemical Formula: NaOCl

Manufacturer: Kuehne Chemical Company, Inc.
86 North Hackensack Avenue
South Kearny, New Jersey 07032-4673
(973) 589-0700 Fax: (973) 589-4866

SECTION 2 – HAZARD IDENTIFICATION

Category 1

Symbol:



Signal Word: Danger

Corrosive to metals: Category 1
Skin Corrosion: Category 1
Serious Eye Damage: Category 1
Target Organ Toxicity: Category 1 – Causes damage to respiratory system

Hazard Statements: H290 – May be corrosive to metals
H314 - Causes severe skin burns and eye damage
H400 – Very toxic to aquatic life

HMIS HAZARD RATINGS

HEALTH	3
FLAMMABILITY	0
PHYSICAL HAZARD	2
PERSONAL PROTECTION	

Based on Nat'l Paint & Coatings Association HMIS system

NFPA HAZARD RATINGS



Chemical not listed. Ratings based on NFPA guidelines

Effects of Overexposure

Acute: Inhalation – Inhalation of mists, vapors or spray is irritating to the respiratory system, may cause throat pain and cough, severe respiratory tract irritation and pulmonary edema.

Eyes – May cause severe irritation, burns, and/or corrosion.
May cause vision impairment, corneal damage and blurred vision.

Skin – May cause severe irritation and burns or dermatitis. Prolonged skin exposure may cause destruction of the dermis with impairment of the skin to regenerate at site of contact.

Ingestion – Ingestion may cause gastrointestinal tract pain and inflammation, burns and perforation of the esophagus or stomach or injury to liver, kidneys or central nervous system.

Chronic: Repeated inhalation exposure may cause impairment of lung function and permanent lung damage. Effects from chronic skin exposure would be similar to those from single exposure except for effects secondary to tissue destruction.

Note: Corrosive and strongly irritating to the eyes, skin, and respiratory tract. Inhalation of fumes may cause pulmonary edema. Ingestion may cause burns to the mouth and digestive tract, and abdominal distress.

Appearance: Colorless to light yellow-green liquid.

Routes of Entry: Inhalation, Eye Contact, Skin, Ingestion

Cancer Information: This product has not been listed as carcinogenic by the following agencies: IARC, NTP, and OSHA

Mutagenicity: Sodium hypochlorite has tested positive in in-vitro test systems and negative in in-vivo test systems. These results are consistent with other germicides.

Medical Conditions Aggravated by Exposure: Asthma, Heart disease, Respiratory disorder

SECTION 3 – COMPOSITION, INFORMATION OR INGREDIENTS

CAS Number
7732-18-5

Name
Water

Common Names
Water

Percentage
VOL. 85.75 – 81.25
WT. 84.37 – 88.13

Exposure Limits
PEL: Not Established
TLV: Not Established
STEL: Not Established
IDLH: Not Established

<u>CAS Number</u>	<u>Name</u>	<u>Common Names</u>
7681-52-9	Hypochlorous Acid, Sodium Salt	Sodium Hypochlorite

<u>Percentage</u>	<u>Exposure Limits</u>
VOL. 14.25 – 18.75	PEL: N/A
WT: 11.87 – 15.63	TLV: N/A
	STEL: 2 mg/m ³ (US WEEL)
	IDLH: Not Established

Listed on: - The EINECS inventory, or in compliance with the inventory.
- The TSCA inventory.
- The AICS inventory, or in compliance with the inventory.
- The DSL list.
- The ENCS inventory, or in compliance with the inventory.
- The KECI inventory, or in compliance with the inventory.
- The PICCS inventory, or in compliance with the inventory.
- The IECSC inventory, or in compliance with the inventory.
- The NZIoC inventory, or in compliance with the inventory.

<u>CAS Number</u>	<u>Name</u>	<u>Common Names</u>
1310-73-2	Sodium Hydroxide (NaOH)	Caustic Soda, Lye

<u>Percentage</u>	<u>Exposure Limits</u>
VOL. 1	PEL: 2 mg/m ³
WT. 1	TLV: 2 mg/m ³
	STEL: 2 mg/m ³
	IDLH: 10 mg/m ³

Listed on: - The TSCA Inventory, or in compliance with the inventory.
- PA Requirement - 3% or greater.
- NJ Requirement - 1% or greater
- This product has not been listed as carcinogenic by the following agencies: IARC, NTP, and OSHA

<u>CAS Number</u>	<u>Name</u>	<u>Common Names</u>
7647-14-5	Sodium Chloride (NaCl)	Salt
	<u>Percentage</u>	<u>Exposure Limits</u>
	VOL. >1	PEL: Not Established
	WT. >1	TLV: Not Established
		STEL: Not Established
		IDLH: Not Established

<u>CAS Number</u>	<u>Name</u>	<u>Common Names</u>
497-19-8	Carbonic Acid Disodium Salt	
	<u>Percentage</u>	<u>Exposure Limits</u>
	VOL. >1	PEL: Not Established
	WT. >1	TLV: Not Established
		STEL: Not Established
		IDLH: Not Established

SECTION 4 – FIRST AID MEASURES

- Inhalation:** Remove to fresh air. If breathing is difficult, have qualified person administer oxygen. If respiration stops, give mouth-to-mouth resuscitation. **SEEK MEDICAL ATTENTION IMMEDIATELY.**
- Eyes:** Immediately flush eyes with plenty of water for at least 15 minutes. **SEEK MEDICAL ATTENTION IMMEDIATELY.**
- Skin:** Flush thoroughly with cool water under shower for at least 15 minutes while removing contaminated clothing and shoes. Discard non-rubber shoes. Wash clothing before reuse. Continue to flush until medical attention arrives. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

Ingestion: Do not induce vomiting. Rinse mouth and give water or milk if the person is conscious. If vomiting occurs, keep airway clear and give more milk or water. **SEEK MEDICAL ATTENTION IMMEDIATELY.**

SECTION 5 – FIRE-FIGHTING MEASURES

Flash Point:	N/A
Auto-ignition Temperature:	N/A
Flammable Limits in Air - % by Volume - Upper:	N/A
Lower:	N/A
Sensitivity to Mechanical Impact:	Not Sensitive
Sensitivity to Static Discharge:	Not Sensitive

Extinguishing Media

Use water spray, foam, dry powder, or carbon dioxide or agents suitable for materials in surrounding fire. Do not use Mono Ammonium Phosphate (MAP) type extinguishers directly on this product.

Fire Fighting Procedures

Use self-contained breathing apparatus and full protective equipment. Acid contamination will produce very irritating fumes similar to chlorine.

Fire and Explosion Hazard

Sodium Hypochlorite or its solutions decompose when heated. Decomposition products may cause containers to rupture or explode. Vigorous reaction is possible with organic materials or oxidizing agents and may result in fire. May release toxic gases.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Steps to be Taken if Material is Released or Spilled

Do not allow spilled material to enter sewers or streams. Flush with water to dilute as much as possible and pump into polyethylene containers for disposal. Avoid heat and contamination with acid materials. Do not use combustible materials such as sawdust to absorb Sodium Hypochlorite Solution.

Ventilation Requirements

Provide good general room ventilation plus local exhaust at points of emission.

SECTION 7 – HANDLING AND STORAGE

Handling Precautions

Do not store adjacent to chemicals that may react if spillage occurs. Comply with DOT regulations when shipped. If closed containers become heated, vent to release decomposition products (mainly oxygen under normal decomposition). Do not mix or contaminate with ammonia, hydrocarbons, acids, alcohols or ethers.

Do Not Reuse Containers: Product residues may remain in containers. All labeled precautions must be observed. Dispose of container in a manner meeting government regulations.

SECTION 8 – EXPOSURE CONTROLS AND PERSONAL PROTECTION

Specific Personal Protective Equipment

- Respiratory:** NIOSH/MSHA approved respirator with N95 (dust, fume, mist) cartridges may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits. Acid gas cartridges may be required if decomposition products are present. A respiratory protection program that meets 29 CFR 1910.134 must be followed whenever workplace conditions warrant use of a respirator.
- Eye:** Wear chemical safety goggles plus full face shield to protect against splashing when appropriate.
- Gloves:** Wear impervious gloves such as rubber, neoprene or vinyl.
- Other:** Wear impervious protective clothing including rubber safety shoes. Eye wash facility and emergency shower should be in close proximity.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance:	Colorless to light yellow-green.		
Odor:	Pungent chlorine like odor.		
Physical State:	Liquid.		
pH:	12 @ 100 g/L		
Vapor Pressure:	<u>Temperature °F</u>	<u>mm Hg</u>	<u>PSIA</u>
	48.2	3.7	0.071
	60.8	8.0	0.15
	68.0	12.1	0.23
	89.6	31.1	0.60
	118.4	100.0	1.93
Boiling Point:	(@760 mm Hg)	Decomposes above 110 °C (230 °F)	
Freezing/Melting Point:	<u>Weight %</u>	<u>Freezing Point °F</u>	
	10	7 °F	
	12	- 3 °F	
	14	- 14 °F	
Solubility in Water:	100% (by weight)		
Specific Gravity:	1.117 - 1.215	(H ₂ O = 1)	
Odor Threshold (ppm):	0.9 ppm approximate		

SECTION 10 – STABILITY AND REACTIVITY

Conditions Contributing to Instability

Strong Oxidizer, stability decreases with concentration, heat, light, decrease in pH and contamination by metals.

Incompatibility

Avoid contamination with heavy metals, reducing agents, organics, ether, ammonia, and acids.

Reacts With: Organics, ammonia and acids.

Hazardous Decomposition Products: Acid fumes, Hydrogen chloride and Chlorine.

Hazardous Polymerization: Material is not known to polymerize.

SECTION 11 – TOXICOLOGICAL INFORMATION

<u>CAS Number</u>	<u>Name</u>	<u>Common Names</u>
7681-52-9	Sodium Hypochlorite	Bleach
	Acute Oral LD₅₀:	(rat) 8,200 mg/kg
	Primary Skin Irritation LD₅₀:	(rabbit) >10,000 mg/kg

The toxicity and corrosivity of Sodium Hypochlorite is a function of concentration. Industrial grades of higher concentrations than household bleach are more toxic and corrosive.

SECTION 12 – ECOLOGICAL INFORMATION

Aquatic Ecotox Data

Fish:	LC ₅₀ (96 hr.)	Pimephales promelas (Fathead minnow)	1.40 mg/L
	EC ₅₀ (48 hr.)	Daphnia magna (water flea)	0.035 mg/L

Biodegradation: This material is inorganic and not subject to biodegradation.

Persistence: This material is believed not to persist in the environment.

Bioconcentration: This material is not expected to bioconcentrate in organisms.

This material is harmful to fish, invertebrates, amphibians, and plants.

SECTION 13 – DISPOSAL CONSIDERATIONS

Waste Disposal Method

Reduce with agents such as bisulfites or ferrous salt solutions. Some heat will be produced. Keep on alkaline side and dilute with copious amounts of water. Main end product is salt water. Comply with all applicable government regulations.

Product Disposal

Product should be completely removed from containers. Material that cannot be used or chemically reprocessed should be disposed of in a manner meeting government regulations. applicable governmental regulations.

SECTION 14 – TRANSPORT INFORMATION

DOT Proper Shipping Name:	Hypochlorite Solutions
DOT Hazard Class:	8
DOT ID Number:	UN1791
DOT Packing Group:	II
DOT Hazardous Substance:	RQ 100# (Sodium Hypochlorite)
DOT Marine Pollutant:	N/A
Additional Description:	N/A

SECTION 15 – REGULATORY INFORMATION

U.S. Federal Regulations

Section 311 of The Clean Water Act lists this product as a hazardous substance, which If discharged to water, may require immediate response to mitigate danger to public health and welfare. Spills of 100 pounds or more must be reported to the National Response Center at the following number:
1-800-424-8802

Material is contained on a composite list as required under 101 (14) of CERCLA.

Sodium Hypochlorite Solution is regulated by the USEPA under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA) as a pesticide product.

Sodium Hypochlorite Solution produced by Kuehne Chemical Company Inc. is registered with the USEPA under Registration Number 35317-20001 and 35317-13.

OSHA: This material is considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200) (US).

TSCA (Toxic Substances Control Act): This product is not subject to export notification.

CERCLA and SARA/Title III:

Hazard Categories: Corrosive to Metal
Oxidizer
Acute Toxicity
Respiratory or skin sensitization
Serious eye damage or irritation
Skin corrosion or irritation

This product is registered with the USEPA as a pesticide as required under the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA).

Other Standards

NSF Certification: This product has been classified as an approved drinking water treatment chemical under ANSI/NSF Standard 60.

USDA Approvals: B-1, D-2, L-1, Q-4 & Fruit and Vegetable washing compounds.

SECTION 16 – OTHER INFORMATION

Prepared By: Kuehne Company's Health, Safety, Environmental & Security
Department, Revision F – 6 June 2022

For additional non-emergency health, safety or environmental information, telephone:
(973) 589 - 0700 or write to:

Kuehne Chemical Company, Inc.
86 N. Hackensack Avenue
South Kearny, New Jersey 07032-4673

SDS Legend:

ACGIH	American Conference of Governmental Industrial Hygienists
CAS	Chemical Abstracts Service Registry Number
CEILING	Ceiling Limit (15 Minutes)
OSHA	Occupational Safety and Health Administration
PEL	Permissible Exposure Limit (OSHA)
STEL	Short Term Exposure Limit (15 Minutes)
TLV	Threshold Limit Value (ACGIH)
TWA	Time Weighted Average (8 Hours)

IMPORTANT: The information contained herein is offered only as a guide to the handling of this specific material and has been prepared in good faith by technically knowledgeable personnel. It is not intended to be all-inclusive and the manner and conditions of use and handling may involve other and additional considerations.

The information presented herein, while not guaranteed, was prepared by competent technical personnel and is true and accurate to the best of our knowledge.

NO WARRANTY OF MERCHANTABILITY OR FITNESS FOR PURPOSE, OR OF ANY OTHER KIND, EXPRESS OR IMPLIED, IS MADE REGARDING PERFORMANCE, STABILITY OR OTHERWISE.

This information is not intended to be all-inclusive as to the manner and conditions of handling and storage. Other factors may involve other or use additional safety or performance considerations. While our technical personnel will be happy to respond to questions regarding safe handling and use procedures, safe handling and use remains the responsibility of the customer. No suggestions for use are intended as, and nothing herein shall be construed as a recommendation to infringe any existing patents or violate any federal, state or local laws, rules, regulations or ordinances.

No warranty of any kind is given or implied and Kuehne Chemical Company, Inc. will not be liable for any damages, losses, injuries or consequential damages that may result from the use of or reliance on any information contained herein.

This Safety Data Sheet (SDS) covers the following materials:

Sodium Hypochlorite - Liquid: 15% by volume – 12.5% by weight

REFERENCES:

American National Standard, Z400.1-1993

Chlorine Institute Pamphlet 96 (Sodium Hypochlorite Manual), Edition 5, September 2017

National Institute for Occupational Safety and Health, US Dept. of Health & Human Services, Cincinnati, June, 1994.

Supplier's Safety Data Sheets.

Windholz, Martha, Ed, The Merck Index, 11th ed., Merck and Co, Inc., Rahway, New Jersey, 1989.

WARNING LABEL INFORMATION

Active Ingredient: Sodium Hypochlorite (NaOCl) 11.87 – 15.63 % (by weight)
Other Ingredients 84.37 – 84.37 %
Total 100.0 %

KEEP OUT OF REACH OF CHILDREN

DANGER

Category 1

Symbol:



Signal Word: Danger

Hazard Statements: May be corrosive to metals
Causes severe skin burns and eye damage
Causes severe eye damage

FIRST AID

IF INHALED: Move to fresh air. If person is not breathing, call 911 or an ambulance then give artificial respiration, preferably mouth-to-mouth if possible. Call a poison control center or doctor for further treatment advice.

IF IN EYES: Hold eye open and rinse slowly and gently with water for 15 – 20 minutes. Remove contact lenses, if present, after the first 5 minutes, then continue to rinse eye. Call a poison control center or doctor for treatment advice.

IF ON SKIN OR CLOTHING: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15 – 20 minutes. Call a poison control center or doctor for treatment advice.

IF SWALLOWED: Call a poison control center or doctor for treatment advice. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by a poison control center or doctor. Do not give anything by mouth to an unconscious person.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage.

HOT LINE NUMBER: 1-800-POISON-1

Have product container or label with you when calling a poison control center or doctor or going for treatment.

PRECAUTIONARY STATEMENTS HAZARDOUS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes irreversible eye and skin damage. Do not get in eyes, on skin or on clothing. Harmful if absorbed through the skin. Applicators or other handlers must wear coveralls over long sleeve shirt and long pants, socks and rubber boots, face shield or goggles and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Avoid breathing vapors. Vacate poorly ventilated areas as soon as possible. Do not return until strong odors have dissipated. Remove and wash contaminated clothing before reuse.

Environmental Hazards: This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless this product is specifically identified and addressed in an NPDES permit. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

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

DIRECTION FOR USE

IT IS A VIOLATION OF FEDERAL LAW TO USE THIS PRODUCT IN A MANNER INCONSISTENT WITH ITS LABELING.

Re-formulators and Re-packagers of this product must obtain their own registrations from the United States Environmental Protection Agency (USEPA).

For manufacturing use in the formation of end-use Products

NOTE: This product degrades with age. Use a Chlorine test kit and increase dosage as necessary, to obtain the required level of available Chlorine.

For specific use directions, see KUEHNE Circular for each particular application.

CIRCULAR NUMBER K586A: Sanitizers of hard non-porous surfaces (stainless steel tops)

CIRCULAR NUMBER K586B: Commercial laundry sanitizers

CIRCULAR NUMBER K586C: Agricultural uses

CIRCULAR NUMBER K586D: Disinfection of human drinking water

CIRCULAR NUMBER K586E: Disinfection of hard non-porous surfaces (sealed tile and fiberglass, glass, stainless steel)

CIRCULAR NUMBER K586F: Sewage, wastewater and effluent control

CIRCULAR NUMBER K586G: Cooling tower & evaporative condenser water systems



' CIRCULAR NUMBER K586H: Sanitizer of porous food contact surfaces (wooden butcher blocks)

' CIRCULAR NUMBER K586I: Sanitizer of porous non-food contact surfaces (tile walls, concrete floors)

CIRCULAR NUMBER K586J: Disinfectant of swimming pool water, spa/hot tubs, hydrotherapy pools)

STORAGE AND DISPOSAL

Store this product in a cool dry area away from direct sunlight and heat to prevent deterioration. In case of a spill, flood areas with large quantities of water. Product or rinsates that cannot be used should be diluted with water before disposal in a sanitary sewer. Do not contaminate food or feed by storage, disposal or cleaning of equipment.

Large storage containers should be rinsed thoroughly with water and returned to manufacturer for reconditioning. Large storage containers should be thoroughly rinsed with water before reuse.

IN CASE OF

FIRE: Use self-contained breathing apparatus and full protective equipment. Use water spray, foam, dry chemical or CO2. Fire may liberate toxic gases.

SPILL OR LEAKAGE: Get protective equipment. Contain spill and pump into marked container for reclamation for disposal. Avoid discharges to sewers and streams. Spills of 100 pounds or more must be reported to the National Response Center at the following number:

1-800-424-8802

State and local regulations may have additional reporting requirements, check with the proper state and local authorities. Wear neoprene or rubber gloves.

**IN CASE OF CHEMICAL EMERGENCIES CALL:
24 HOUR EMERGENCY PHONE (973) 589-0700**

CAUTION

WATER DISINFECTION IN PROGRESS
Desinfección Del Agua En Curso

DO NOT USE THE WATER



NO USE EL AGUA

Pre-Flush

Cold Dosed

Hot Dosed

Post Flush

**Attachment F
Dip and Rinse Procedure and Certification Letter**

Dip and Rinse Procedure

Project Description

(Delete example below and provide brief description of the project scope of work)
The work includes replacing one (1) elbow and 5' of pipe in the basement.

Reason(s) (Check that apply)

Emergency	
Limited Working Space	
Other	

Plumbing Scope for Dip and Rinse

# of Fittings	
# of Fixtures	
# of Pipe Segments (pieces)	
Sum Total Length of Pipe (feet) or Pipe Segments	

Contractor Certifications

	Initials/Date
The Contractor confirms the following:	
Dip and Rinse work will be performed only after obtaining written approval from the IEH	
All work will be conducted in strict accordance with the Dip and Rinse procedures as per Section 3.10.	
All plumbing components above will undergo dip and rinse procedure before installation	
Dip & Rinse will not be used if the total length of all piping to be installed exceeds a sum total of 10 feet.	
Contractor will submit a letter after completion of work certifying all above conditions were met	

Contractors Letterhead
Attachment F
Dip and Rinse Procedure and Certification Letter

Date

Mr. Chad Ondrusek
Senior Director, Industrial and Environmental Hygiene Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101

Re: Dip and Rinse of Potable Water Pipe and Associated Plumbing Components
School name/Building ID
School Address

Dear Mr. Ondrusek,

This letter certifies that we installed <10' of new piping and associated plumbing components using SCA's Dip and Rinse procedure at the above referenced school. Potable water piping and associated plumbing components were:

1. All delivered to the school prior to implementing the dip and rinse procedure;
2. Dipped in 1 to 5 percent disinfectant solution for 30 minutes;
3. Rinsed thoroughly until the disinfectant was no longer present;
4. Wrapped in poly and placed on plastic sheets before installation; and
5. Installed without allowing any deleterious material to enter the pipe.

All final connections were made within 72 hours after the dip and rinse procedure was complete.

Print Name of Certified Plumber

Signature of Certified Plumber

Attachment G
Direct Replacement Procedure and Certification Letter

Direct Replacement Procedure

Project Description

The work includes replacing a bottle filler on the second floor, classroom 210. The Direct Replacement procedure will be used for a bottle filler in classroom 210 since the use of disinfectant may compromise the filter.

Reasons (Check that apply)

Emergency	
Appliance/Unit Cannot be Disinfected Due to Potential Damage from Disinfectant	

Plumbing Scope for Direct Replacement

Plumbing Component	No.	Type (Description)(more than one type, list each)
Fixtures	1	Bottle filler in classroom 210
Fittings		
Appliances		

Contractor Certifications

	Initials/Date
The Contractor confirms the following:	
Direct replacement work will be performed only after obtaining written approval from the IEH	WS/5-20-18
IEH was provided a letter indicating the use of disinfectant in the fixture could cause potential damage to the appliances	WS/5-20-18
New fixtures, fittings and appliances are in factory-wrapped packaging before installation	WS/5-20-18
All work will be conducted in strict accordance with the Direct Replacement procedures as per Section 3.11.	WS/5-20-18
A Direct Replacement Certification Letter will be provided to IEH upon completion	WS/5-20-18
New fixtures, fittings and/or appliances will not be placed in service without IEH's written approval	WS/5-20-18

The following attachments have been included:

- Letter indicating the use of disinfectant in a fixture could cause potential damage to the unit

Contractors Letterhead
Attachment G
Direct Replacement Procedure and Certification Letter

Date

Mr. Chad Ondrusek
Senior Director, Industrial and Environmental Hygiene
Division
New York City School Construction Authority
30-30 Thomson Avenue
Long Island City, NY 11101
Re: Direct Replacement of Fixtures and Appliances
School name/Building ID
School Address

Dear Mr. Ondrusek,

This letter certifies that we utilized the SCA Direct Replacement procedure for the installation of 12 fixtures at the above referenced school. We also employed the Direct Replacement procedure for two appliances due to the potential damage that could be caused by the disinfectant. The fixtures and/or appliances were:

1. Delivered to the school in new condition with in-intact factory-wrapped packaging;
2. Maintained/stored in a clean area prior to installation and the piping was flushed to remove any residual entrained sediment or debris;
3. Removed from the factory wrapped-packaging at the location of the installation and immediately installed in accordance with all applicable codes and regulations;
4. Installed using clean tools, free of deleterious material; and
5. Handled by the plumbers in a sanitary manner to avoid potential contamination.

Following installation, the water valves were opened to confirm proper operation and water flow.

Print Name of Certified Plumber

Signature of Certified Plumber