Thomas, Colleen

From: Tim Harris II <TTH@harrisandford.com>
Sent: Thursday, May 26, 2016 11:07 AM
To: Thomas, Colleen
Subject: Info
Attachments: removed.txt; HFChlor Alkali LLC_Handler Info Rpt.pdf; US-English-Sodium Hypochlorite, 15-Bleach-March 18 2015.pdf; Plant Specs.pdf

Importance: High

Colleen,

A potential customer wanted to buy bleach from us if we're EPA registered to sell bleach, spec and SDS attached. Are we okay to sell our bleach to users who want to use bleach as a disinfectant? Please confirm.

Best Regards,

Harris and Ford, LLC
Timothy M. Harris II
(Not The President)
9307 E. 56th Street
Indianapolis, IN 46216
Cell 317-523-2229
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RCRA
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HFChlorAlkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Production Facility
1194 720th Avenue
Eddyville, IA 52553

Product Specification Sheet

Product Description
Sodium Hypochlorite, 15% (Bleach)

Component		Basis	Specification
Chlorine		% by vol.	15.5 max.
Excess Alkalinity as NaOH		% by vol.	0.2% max.
Sodium Hypochlorite (NaOCl)		% by wt.	13.07% max.
Iron		ppm	2.5 max.
Nickel		ppm	0.15 max
Copper		ppm	0.10 max.
Specific Gravity, 68°F			1.205
Freezing Point			-14.8°F
Formula Weight			74.44
NSF approved in accordance with AWWA/NSF Standard #60			

Meets requirements of the *Food Chemical Codex*, Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type B for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 11/25/2013

HFChlorAlkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Various Locations

Product Specification Sheet

Product Description
Sodium Hydroxide, Caustic Soda, 20% Diaphragm

Component	Basis	Specification
Total Alkalinity, as Na_2O	wt. %	13.95 min.
Hydroxide Alkalinity, as NaOH	wt. %	18.0 min. - 22.00 max.
Sodium Carbonate, as Na_2CO_3	wt. %	0.08 max.
Sodium Chloride, as NaCl	ppm by wt.	44 max.
Sodium Chlorate, as $NaClO_3$	ppm by wt.	120 max.
Sodium Sulfate, as Na_2SO_4	ppm by wt.	37.5 max.
Iron, as Fe	ppm by wt.	4.0 max.

Meets requirements of the *Food Chemical Codex* , Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type A for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 10/13/2010

HFChlorAlkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Various Locations

Product Specification Sheet

Product Description
Sodium Hydroxide, Caustic Soda, 25% Diaphragm

Component	Basis	Specification
Total Alkalinity, as Na_2O	wt. %	18.60 min.
Hydroxide Alkalinity, as NaOH	wt. %	24.0 min. - 26.00 max.
Sodium Carbonate, as Na_2CO_3	wt. %	0.10 max.
Sodium Chloride, as NaCl	ppm by wt.	55 max.
Sodium Chlorate, as $NaClO_3$	ppm by wt.	150 max.
Sodium Sulfate, as Na_2SO_4	ppm by wt.	37.5 max.
Iron, as Fe	ppm by wt.	5.0 max.

Meets requirements of the *Food Chemical Codex*, Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type A for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 10/13/2010

HFChlorAlkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Production Facility
1194 720th Avenue
Eddyville, IA 52553

Product Specification Sheet

Product Description
Sodium Hydroxide, Caustic Soda, 32% Membrane

Component	Basis	Specification
Total Alkalinity, as Na_2O	wt. %	24.73 min.
Hydroxide Alkalinity, as NaOH	wt. %	30 - 32
Sodium Carbonate, as Na_2CO_3	wt. %	0.064 max.
Sodium Chloride, as NaCl	ppm by wt.	64 max.
Sodium Chlorate, as $NaClO_3$	ppm by wt.	15 max.
Sodium Sulfate, as Na_2SO_4	ppm by wt.	32 max.
Iron, as Fe	ppm by wt.	1.92 max.

Meets requirements of the *Food Chemical Codex* , Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type A for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 11/25/2013

HFChlor Alkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Various Locations

Product Specification Sheet

Product Description
Sodium Hydroxide, Caustic Soda, 50% Diaphragm

Component	Basis	Specification
Total Alkalinity, as Na_2O	wt. %	37.50 min.
Hydroxide Alkalinity, as NaOH	wt. %	48.50 min. - 51.00 max.
Sodium Carbonate, as Na_2CO_3	wt. %	0.20 max.
Sodium Chloride, as NaCl	ppm by wt.	130 max.
Sodium Chlorate, as $NaClO_3$	ppm by wt.	30.0 max.
Sodium Sulfate, as Na_2SO_4	ppm by wt.	50.0 max.
Iron, as Fe	ppm by wt.	8.0 max.
Copper, as Cu	ppm by wt.	0.20 max.

Meets requirements of the *Food Chemical Codex* , Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type A for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 10/03/2014

HF Chlor Alkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Production Facility
1194 720th Avenue
Eddyville, IA 52553

Product Specification Sheet

Product Description
Sodium Hydroxide, Caustic Soda, 50% Membrane

Component	Basis	Specification
Total Alkalinity, as Na_2O	wt. %	38.36 min.
Hydroxide Alkalinity, as NaOH	wt. %	49.50 min. - 51.00 max.
Sodium Carbonate, as Na_2CO_3	wt. %	0.10 max.
Sodium Chloride, as NaCl	ppm by wt.	100 max.
Sodium Chlorate, as $NaClO_3$	ppm by wt.	23.0 max.
Sodium Sulfate, as Na_2SO_4	ppm by wt.	50.0 max.
Iron, as Fe	ppm by wt.	3.0 max.
Copper, as Cu	ppm by wt.	0.30 max.
Nickel, as Ni	ppm by wt.	0.50 max.

Meets requirements of the *Food Chemical Codex*, Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type A for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 11/25/2013

HFChlorAlkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Various Locations

Product Specification Sheet

Product Description
Sodium Hydroxide, Caustic Soda, 50% Membrane

Component	Basis	Specification
Total Alkalinity, as Na_2O	wt. %	37.50 min.
Hydroxide Alkalinity, as NaOH	wt. %	48.50 min. - 51.00 max.
Sodium Carbonate, as Na_2CO_3	wt. %	0.20 max.
Sodium Chloride, as NaCl	ppm by wt.	100 max.
Sodium Chlorate, as $NaClO_3$	ppm by wt.	60.0 max.
Sodium Sulfate, as Na_2SO_4	ppm by wt.	50.0 max.
Iron, as Fe	ppm by wt.	5.0 max.

Meets requirements of the *Food Chemical Codex* , Fifth Edition
Meets AWWA B501 03 Standard for Sodium Hydroxide (Caustic Soda)
Meets ASTM Specification E 1098 93 Type A for Liquid Caustic Soda (Sodium Hydroxide Solution)
NSF Listed, ANSI/NSF Standard 60

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Last Updated 10/13/2010

HF Chlor Alkali LLC

Bleach • Caustic Soda • Hydrochloric Acid

Corporate Headquarters
9307 E. 56th Street
Indianapolis, IN 46216

Production Facility
1194 720th Avenue
Eddyville, IA 52553

Product Specification Sheet

Product Description
Hydrochloric Acid 22° (Muriatic Acid - HCl) - Technical Grade

Component	Basis	Specification
Assay, °Baume	wt. %	22.0 min.
Hydrogen Chloride	wt. %	35.21 min.
Iron, ppm as Fe	ppm	3 max.
Sulfate	ppm	60 max.
Heavy Metals, Pb	Pb, ppm	1 max.
Arsenic	ppm	0.5 max.
Oxidizing Substances, Cl2	ppm	10 max.
Color, APHA	ppm by wt.	30 max.
Extractable Organic Compounds		
Total Organic Compounds (Non-Flourine-Containing)	ppm	5 max.
Flourinated Organic Compounds	ppm	25 max.
*Residue on Ignition	ppm	80 max.

Tank Cars and Trucks must be rubber lined.

Meets requirements of the *Food Chemical Codex*, Fifth Edition
Meets Federal specification O H 765E
Meets requirements of ASTM E 1146-97
NSF Listed, ANSI/NSF Standard 60
*According to test requirements appearing in the *National Formulary 22*

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Last Updated 11/25/2013

Sodium Hypochlorite, 15% (Bleach)

Safety Data Sheet

according to the federal final rule of hazard communication revised on 2012 (HazCom 2012)

Date of issue: 03/12/2015 Version: 1.0

SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Trade name : Sodium Hypochlorite, 15% (Bleach)

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : Swimming pool chlorinator, hard surface cleaner, mildecide, Water treatment chemical, Biocides, bleach solutions and bleach fixer solutions

Use of the substance/mixture : Industrial use
Professional use

1.3. Details of the supplier of the safety data sheet

HFChlor-Alkali, LLC
1194 720th Ave.
Eddyville, IA 52553
Tel: 641-969-4115
Email: Quality@hfchloralkali.com

1.4. Emergency telephone number

Emergency number : For Chemical Emergency, Spill, Leak, Fire, Exposure or Accident Call CHEMTREC Day or Night Within USA and Canada: 1-800-424-9300
Outside USA and Canada (collect calls accepted): 1-703-527-3887

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

GHS-US classification

Skin Corr. 1A H314
Eye Dam. 1 H318

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labelling

Hazard pictograms (GHS-US) :

GHS05

Signal word (GHS-US) : Danger

Hazard statements (GHS-US) : H314 - Causes severe skin burns and eye damage
H318 - Causes serious eye damage

Precautionary statements (GHS-US) : P260 - Do not breathe mist, spray, vapours, gas, fume, dust
P264 - Wash hands thoroughly after handling
P280 - Wear eye protection, protective clothing, protective gloves
P301+P330+P331 - If swallowed: rinse mouth. Do NOT induce vomiting
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing
P305+P351+P338 - If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing
P310 - Immediately call a POISON CENTER, a doctor
P321 - Specific treatment (see on this label)
P363 - Wash contaminated clothing before reuse
P405 - Store locked up
P501 - Dispose of contents/container to comply with applicable local, national and international regulation.

2.3. Other hazards

No additional information available

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

3.2. Mixture

Name	Product identifier	%	GHS-US classification
Sodium hypochlorite	(CAS No) 7681-52-9	10 - 15	Skin Corr. 1B, H314
Sodium hydroxide	(CAS No) 1310-73-2	1 - 5	Acute Tox. 4 (Dermal), H312 Skin Corr. 1A, H314 Eye Dam. 1, H318

Full text of H-phrases: see section 16

SECTION 4: First aid measures

4.1. Description of first aid measures

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Remove victim to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician. In case of breathing difficulties administer oxygen. by trained personnel. If respiration or pulse has stopped, have a trained person administer Basic Life Support (Cardio-Pulmonary Resuscitation and/or Automatic External Defibrillator) and CALL FOR EMERGENCY SERVICES IMMEDIATELY.

First-aid measures after skin contact : Immediately flush skin with plenty of water for at least 15 minutes. Remove/Take off immediately all contaminated clothing. Immediately call a POISON CENTER or doctor/physician.

First-aid measures after eye contact : In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately get medical attention.

First-aid measures after ingestion : If swallowed, rinse mouth with water (only if the person is conscious). Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting. Give water to drink if victim completely conscious/alert. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries : Causes severe skin burns and eye damage. Material is destructive to tissue of the mucuous membranes and upper respiratory tract. Cough, shortness of breath, headache, nausea.

Symptoms/injuries after inhalation : Causes severe burns to the respiratory system. May result in aspiration into the lungs, causing chemical pneumonia. Central nervous system depression. Acute exposure to high doses or chronic exposure can cause pulmonary damages, liver, kidneys and neurological disorders.

Symptoms/injuries after skin contact : Caustic burns/corrosion of the skin.

Symptoms/injuries after eye contact : Causes serious eye damage. Direct contact may result in corneal injury. Can cause blindness.

Symptoms/injuries after ingestion : Severe irritation or burns to the mouth, throat, oesophagus, and stomach. Causes damage to liver by swallowing. Damage to kidneys. Central nervous system depression.

4.3. Indication of any immediate medical attention and special treatment needed

Caustic products. The affected person must rest and be kept under medical observation.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Use fire-extinguishing media appropriate for surrounding materials. Foam. Dry powder. Carbon dioxide. Sand. If water used, fog nozzles preferred.

Unsuitable extinguishing media : Do not use a water jet since it may cause the fire to spread.

Do not use Mono Ammonium Phosphate (MAP) type extinguishers directly on this product.

5.2. Special hazards arising from the substance or mixture

Reactivity : Contact with metallic substances may release flammable hydrogen gas.

Thermal decomposition generates: Corrosive vapours. Concentrated solution reacts exothermically with water (moisture): release of corrosive mist.

5.3. Advice for firefighters

Firefighting instructions : Use water spray or fog for cooling exposed containers. Exercise caution when fighting any chemical fire. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : Do not enter fire area without proper protective equipment, including respiratory protection. In the event of a fire, wear a NIOSH (US) approved, positive- pressure, self-contained breathing apparatus (SCBA) and full protective clothing.

Other information : On heating, there is a risk of bursting due to internal pressure build-up. Cool down the containers exposed to heat with a water spray. Corrosive vapours. Reacts exothermically with water (moisture). Contact with metallic substances may release flammable hydrogen gas.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Stop leak if safe to do so. Spills of this product present a serious slipping hazard. Avoid breathing mist or vapor . Avoid contact with skin, eyes and clothing.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.

Emergency procedures : Ventilate area.

6.2. Environmental precautions

Prevent entry to sewers and public waters. Notify authorities if liquid enters sewers or public waters. Caustic alkali liquid, In natural environments, seek cleanup advice from specialists to minimize physical habitat damage.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Soak up spills with inert solids, such as clay or diatomaceous earth as soon as possible. Collect all waste in suitable and labelled containers and dispose according to local legislation. Use only non-sparking tools. Store away from other materials. Do not add water to spilled material. Reacts exothermically with water (moisture). Ensure all national/local regulations are observed. Consult the appropriate authorities about waste disposal. Uncontrolled release should be responded to by trained personnel using pre-planned procedures.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Read label before use. Provide good ventilation in process area to prevent formation of vapour. Do not breathe gas, fumes, vapour or spray. Avoid contact with skin, eyes and clothing. Do not wear leather soled shoes. Wear suitable protective clothing. Do not add water to this product, always add caustic to water slowly and in small amounts to avoid boiling and spattering. Reacts exothermically with water (moisture). Never return unused material to original container.

Hygiene measures : Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product. Handle in accordance with good industrial hygiene and safety practices.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Comply with applicable regulations. Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Provide local exhaust or general room ventilation. Ensure adequate ventilation.

Storage conditions : Keep only in the original container in a cool well ventilated place. Keep container closed when not in use. Avoid Freezing. Store away from direct sunlight or other heat sources.

Incompatible materials : Organic materials. Copper and its alloys. Nickel. Ammonia. Acids, soft metals, oxidizers, organic halogen compounds. Contact with some metals such as magnesium, aluminium, zinc (galvanized), tin, chromium, brass and bronze may generate hydrogen. Reacts violently with acids liberating irritating gas. May evolve flammable hydrogen gas on contact with soft metals. It attacks leather and wool resulting in destruction of those material and possible chemical exposure to the individual. For further information, refer to section 10 : "Stability and Reactivity".

Storage temperature : 30 °C (86 °F)

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Sodium hydroxide (1310-73-2)		
ACGIH	ACGIH Ceiling (mg/m³)	2 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	2 mg/m³

8.2. Exposure controls

Appropriate engineering controls	: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Ensure adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of mists and/or vapors below the recommended exposure limits.
Personal protective equipment	: Avoid all unnecessary exposure. Protective goggles. Gloves. Protective clothing. For certain operations, additional Personal Protection Equipment (PPE) may be required.

Hand protection	: Wear protective gloves. Wear suitable gloves resistant to chemical penetration. neoprene/butyl rubber. For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.
Eye protection	: Chemical goggles and/or face shields are required to prevent potential eye contact, irritation or injury.
Skin and body protection	: Wear suitable protective clothing. Rubber apron, boots.
Respiratory protection	: Wear appropriate mask. In excessive concentration, self-contained breathing apparatus may be needed. Respirators should be used in accordance with OSHA requirements (29 CFR 1910.134).
Other information	: Do not eat, drink or smoke during use.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Colour	: Yellow to yellowish green
Odour	: Pungent
Odour threshold	: No data available
pH	: 12 - 14 at 25°C
pH solution	: 16 %
Relative evaporation rate (butyl acetate=1)	: No data available
Melting point	: No data available
Freezing point	: -27 °C (-17 °F) 16% Solution
Boiling point	: Decomposes below boiling point
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: 12 mm Hg @ 20°C (68 °F) 12.5% Solution
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Solubility	: Water: completely miscible
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Contact with metallic substances may release flammable hydrogen gas. Thermal decomposition generates : Corrosive vapours. Concentrated solution reacts exothermically with water (moisture): release of corrosive mist.

10.2. Chemical stability

Product is stable under recommended condition. Product may not be stable under heat, moisture,pressure, light or exposure to incompatible and reactive materials.

10.3. Possibility of hazardous reactions

Hazardous polymerisation does not occur.

10.4. Conditions to avoid

Decomposes on heating. Do not expose to heat. Keep out of direct sunlight. Ultraviolet light. Keep away from energy sources (heat, sunlight, gamma, x-rays) . Avoid Freezing.

10.5. Incompatible materials

Acids, soft metals, oxidizers, organic halogen compounds. Contact with some metals such as magnesium, aluminum, zinc (galvanized), tin, chromium, brass and bronze may generate hydrogen. Reacts violently with acids liberating irritating gas. May evolve flammable hydrogen gas on contact with soft metals. Organic materials. Chlorinated solvents. Oxidizing agents. Copper and its alloys. cobalt. Ammonia.

10.6. Hazardous decomposition products

Fume. Thermal decomposition generates : Corrosive vapours. Decomposition will result in the formation of oxygen from contact with copper,nickel, cobalt and iron solids such as rust.
Decomposition rate increases as it is heated.May develop chlorine if mixed with acidic solutions.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified
(Based on available data, the classification criteria are not met)

Sodium hypochlorite (7681-52-9)	
LD50 oral rat	8200 mg/kg
LD50 dermal rabbit	> 10000 mg/kg
ATE US (oral)	8200.000 mg/kg bodyweight

Sodium hydroxide (1310-73-2)	
LD50 dermal rabbit	1350 mg/kg
ATE US (dermal)	1350.000 mg/kg bodyweight

Skin corrosion/irritation : Causes severe skin burns and eye damage.
pH: 12 - 14 at 25°C

Serious eye damage/irritation : Causes serious eye damage.
pH: 12 - 14 at 25°C

Respiratory or skin sensitisation : Not classified
(Based on available data, the classification criteria are not met)

Germ cell mutagenicity : Not classified
(Based on available data, the classification criteria are not met)

Carcinogenicity : Not classified
(Based on available data, the classification criteria are not met)

Sodium hypochlorite (7681-52-9)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified
(Based on available data, the classification criteria are not met)

Specific target organ toxicity (single exposure) : Not classified
(Based on available data, the classification criteria are not met)

Specific target organ toxicity (repeated exposure) : Not classified
(Based on available data, the classification criteria are not met)

Aspiration hazard	: Not classified (Based on available data, the classification criteria are not met)
Symptoms/injuries after inhalation	: Causes severe burns to the respiratory system. May result in aspiration into the lungs, causing chemical pneumonia. Central nervous system depression. Acute exposure to high doses or chronic exposure can cause pulmonary damages, liver, kidneys and neurological disorders.
Symptoms/injuries after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/injuries after eye contact	: Causes serious eye damage. Direct contact may result in corneal injury. Can cause blindness.
Symptoms/injuries after ingestion	: Severe irritation or burns to the mouth, throat, oesophagus, and stomach. Causes damage to liver by swallowing. Damage to kidneys. Central nervous system depression.

SECTION 12: Ecological information

12.1. Toxicity

Sodium hypochlorite (7681-52-9)	
LC50 fish 1	0.06 - 0.11 mg/l (Exposure time: 96 h - Species: Pimephales promelas [flow-through])
EC50 Daphnia 1	0.033 - 0.044 mg/l (Exposure time: 48 h - Species: Daphnia magna [Static])
LC50 fish 2	4.5 - 7.6 mg/l (Exposure time: 96 h - Species: Pimephales promelas [static])

Sodium hydroxide (1310-73-2)	
LC50 fish 1	45.4 mg/l (Exposure time: 96 h - Species: Oncorhynchus mykiss [static])

12.2. Persistence and degradability

Sodium Hypochlorite, 15% (Bleach)	
Persistence and degradability	Not established.

12.3. Bioaccumulative potential

Sodium Hypochlorite, 15% (Bleach)	
Bioaccumulative potential	Not established.

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on ozone layer	: No additional information available
Effect on the global warming	: No additional information available
Other information	: Avoid release to the environment.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose in a safe manner in accordance with local/national regulations. Hazardous waste (corrosive) based on pH. Do not re-use empty containers. Consult the appropriate local waste disposal expert about waste disposal. Do not allow to enter into surface water or drains. Ensure all national/local regulations are observed. If this product becomes a waste, it meets the criteria of a hazardous waste as defined under 40 CFR 261 and would have the following: D002.
Additional information	: Do not dispose of waste into sewer. Empty container retains product residue. May be subject to the Land Disposal Restrictions under 40 CFR 268 and must be managed accordingly.
Ecology - waste materials	: Avoid release to the environment. Prevent contamination of soil, drains and surface waters.

SECTION 14: Transport information

In accordance with DOT

Transport document description (ADR)	: UN1791 Hypochlorite solutions, 8, III
UN-No.(DOT)	: UN1791
Proper Shipping Name (DOT)	: Hypochlorite solutions
Hazard Classes (DOT)	: 8 - Class 8 - Corrosive material 49 CFR 173.136

Hazard labels (DOT)	: 8 - Corrosive
Packing group (DOT)	: III - Minor Danger
DOT Special Provisions (49 CFR 172.102)	: IB3 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1 and 31HA2, 31HB2, 31HN2, 31HD2 and 31HH2). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized, except for UN2672 (also see Special Provision IP8 in Table 2 for UN2672). N34 - Aluminum construction materials are not authorized for any part of a packaging which is normally in contact with the hazardous material. T4 - 2.65 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively. TP24 - The portable tank may be fitted with a device to prevent the build up of excess pressure due to the slow decomposition of the hazardous material being transported. The device must be in the vapor space when the tank is filled under maximum filling conditions. This device must also prevent an unacceptable amount of leakage of liquid in the case of overturning.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 154
DOT Packaging Non Bulk (49 CFR 173.xxx)	: 203
DOT Packaging Bulk (49 CFR 173.xxx)	: 241
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 5 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 26 - Stow "away from" acids

Additional information

Other information	: No supplementary information available.

ADR

No additional information available

Transport by sea

UN-No. (IMDG)	: 1791
Proper Shipping Name (IMDG)	: HYPOCHLORITE SOLUTION
Class (IMDG)	: 8 - Corrosive substances
Packing group (IMDG)	: III - substances presenting low danger

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Sodium Hypochlorite, 15% (Bleach)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	666 lb

Sodium hypochlorite (7681-52-9)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	100 lb

Sodium hydroxide (1310-73-2)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory	
RQ (Reportable quantity, section 304 of EPA's List of Lists)	1000 lb

15.2. International regulations

CANADA

Sodium Hypochlorite, 15% (Bleach)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class E - Corrosive Material

Sodium hypochlorite (7681-52-9)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class E - Corrosive Material

Sodium hydroxide (1310-73-2)	
Listed on the Canadian DSL (Domestic Sustances List)	
WHMIS Classification	Class E - Corrosive Material

EU-Regulations

Sodium Hypochlorite, 15% (Bleach)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sodium hypochlorite (7681-52-9)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Sodium hydroxide (1310-73-2)
Listed on the EEC inventory EINECS (European Inventory of Existing Commercial Chemical Substances)

Classification according to Regulation (EC) No. 1272/2008 [CLP]

No additional information available

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

No additional information available

15.2.2. National regulations

Sodium Hypochlorite, 15% (Bleach)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Japanese Poisonous and Deleterious Substances Control Law Listed on the Canadian IDL (Ingredient Disclosure List)

Sodium hypochlorite (7681-52-9)
Listed on the AICS (Australian Inventory of Chemical Substances) Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China) Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory Listed on the Korean ECL (Existing Chemicals List) Listed on NZIoC (New Zealand Inventory of Chemicals) Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances) Listed on the Canadian IDL (Ingredient Disclosure List)

Sodium hydroxide (1310-73-2)
Listed on the AICS (Australian Inventory of Chemical Substances)
Listed on IECSC (Inventory of Existing Chemical Substances Produced or Imported in China)
Listed on the Japanese ENCS (Existing & New Chemical Substances) inventory
Listed on the Korean ECL (Existing Chemicals List)
Listed on NZIoC (New Zealand Inventory of Chemicals)
Listed on PICCS (Philippines Inventory of Chemicals and Chemical Substances)
Japanese Poisonous and Deleterious Substances Control Law
Listed on the Canadian IDL (Ingredient Disclosure List)

15.3. US State regulations

No additional information available

SECTION 16: Other information

Other information : None.

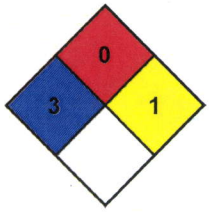
Full text of H-phrases:

Acute Tox. 4 (Dermal)	Acute toxicity (dermal) Category 4
Eye Dam. 1	Serious eye damage/eye irritation, Category 1
Skin Corr. 1A	Skin corrosion/irritation Category 1A
Skin Corr. 1B	Skin corrosion/irritation Category 1B
H312	Harmful in contact with skin
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage

NFPA health hazard : 3 - Short exposure could cause serious temporary or residual injury even though prompt medical attention was given.

NFPA fire hazard : 0 - Materials that will not burn.

NFPA reactivity : 1 - Normally stable, but can become unstable at elevated temperatures and pressures or may react with water with some release of energy, but not violently.



HMIS III Rating

Health : 3 Serious Hazard - Major injury likely unless prompt action is taken and medical treatment is given

Flammability : 0 Minimal Hazard

Physical : 2 Moderate Hazard

SDS US (GHS HazCom 2012)

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Thomas, Colleen

From: Thomas, Colleen
Sent: Thursday, May 26, 2016 2:43 PM
To: 'Tim Harris II'
Subject: RE: Info

Tim,
This is not a question that I can answer. I forwarded you email to our Toxics & Pesticides Branch. You should be hearing from someone in that branch.

Colleen Thomas
Saicon Consultants, Inc.
Contractor @ EPA Region 7
11201 Renner Blvd
Lenexa, KS 66219
P: 913-551-7182
F: 913-551-9182

From: Tim Harris II [mailto:TTH@harrisandford.com]
Sent: Thursday, May 26, 2016 11:07 AM
To: Thomas, Colleen <Thomas.Colleen@epa.gov>
Subject: Info
Importance: High

Colleen,

A potential customer wanted to buy bleach from us if we're EPA registered to sell bleach, spec and SDS attached. Are we okay to sell our bleach to users who want to use bleach as a disinfectant? Please confirm.

Best Regards,

Harris and Ford, LLC
Timothy M. Harris II
(Not The President)
9307 E. 56th Street
Indianapolis, IN 46216
Cell 317-523-2229
www.harrisandford.com

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Thomas, Colleen

From: Tim Harris II <TTH@harrisandford.com>
Sent: Thursday, May 26, 2016 2:52 PM
To: Thomas, Colleen
Subject: RE: Info
Attachments: removed.txt

thank you. would you mind to provide me a contact person? this matter is rather urgent as we're trying to get rid of additional bleach we have.

From: Thomas, Colleen [Thomas.Colleen@epa.gov]
Sent: Thursday, May 26, 2016 3:43 PM
To: Tim Harris II
Subject: RE: Info

Tim,
This is not a question that I can answer. I forwarded you email to our Toxics & Pesticides Branch. You should be hearing from someone in that branch.

Colleen Thomas
Saicon Consultants, Inc.
Contractor @ EPA Region 7
11201 Renner Blvd
Lenexa, KS 66219
P: 913-551-7182
F: 913-551-9182

From: Tim Harris II [mailto:TTH@harrisandford.com]
Sent: Thursday, May 26, 2016 11:07 AM
To: Thomas, Colleen <Thomas.Colleen@epa.gov>
Subject: Info
Importance: High

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Thomas, Colleen

From: Thomas, Colleen
Sent: Thursday, May 26, 2016 3:05 PM
To: 'Tim Harris II'
Subject: FW: Info (Sending again with attachments)

Tim,
See Royan Teter's contact information below.

Colleen Thomas
Saicon Consultants, Inc.
Contractor @ EPA Region 7
11201 Renner Blvd
Lenexa, KS 66219
P: 913-551-7182
F: 913-551-9182

From: Teter, Royan
Sent: Thursday, May 26, 2016 2:41 PM
To: Thomas, Colleen <Thomas.Colleen@epa.gov>
Cc: Snowden, Kevin <Snowden.Kevin@epa.gov>
Subject: RE: Info (Sending again with attachments)

Thanks Colleen. We can respond to the inquiry.

Royan W. Teter, Chief
Pesticides Section
U.S. EPA - Region 7
WWPD/TOPE/PEST
11201 Renner Boulevard
Lenexa, KS 66219

(913) 551-7609 (p)
(913) 551-9609 (f)

From: Thomas, Colleen
Sent: Thursday, May 26, 2016 2:28 PM
To: Teter, Royan <Teter.Royan@epa.gov>
Subject: FW: Info (Sending again with attachments)
Importance: High

Royan,
Is this something that someone in the Pesticides Branch can answer?
This facility got a RCRA EPA ID number (IAR000520817) as a Small Quantity Generator of Hazardous Waste. However, his question doesn't have anything do to with HW.

From: Tim Harris II [mailto:TTH@harrisandford.com]
Sent: Thursday, May 26, 2016 11:07 AM
To: Thomas, Colleen <Thomas.Colleen@epa.gov>
Subject: Info
Importance: High

Colleen,

A potential customer wanted to buy bleach from us if we're EPA registered to sell bleach, spec and SDS attached. Are we okay to sell our bleach to users who want to use bleach as a disinfectant? Please confirm.

Best Regards,

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