Safety Data Sheet

Issue Date: 21-Apr-2008 Revision Date: 04-Feb-2014 Version 1

1. IDENTIFICATION

Product Identifier

Product Name 640 GREEN

Other means of identification

SDS # OBCO-002

UN/ID No UN1791

Recommended use of the chemical and restrictions on use

Recommended Use For low temperature chlorination.

Details of the supplier of the safety data sheet

Supplier Address

OBCO Chemical Corporation

7248 Spa Road

North Charleston, SC 29418

Emergency Telephone Number

Company Phone Number Emergency Telephone (24 hr) 1-843-572-6688

For product spills, leaks or exposures call:

Infotrac 1-800-535-5053 (North America) or 1-352-323-3500 (International)

2. HAZARDS IDENTIFICATION

Appearance Clear yellow liquid Physical State Liquid Odor Chlorine

Classification

| Skin corrosion/irritation | Category 1 Sub-category C |
|-----------------------------------|---------------------------|
| Serious eye damage/eye irritation | Category 1 |
| Oxidizing Liquids | Category 2 |

Signal Word Danger

Hazard Statements

Causes severe skin burns and eye damage May intensify fire; oxidizer





Precautionary Statements - Prevention

Do not breathe dust/fume/gas/mist/vapors/spray

Wash face, hands and any exposed skin thoroughly after handling

Wear protective gloves/protective clothing/eye protection/face protection

Keep away from heat

Keep/Store away from clothing/heat/combustible materials

Take any precaution to avoid mixing with combustibles

Wear protective gloves/protective clothing

Precautionary Statements - Response

Immediately call a poison center or doctor/physician

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 or doctor/physician

IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower

Wash contaminated clothing before reuse

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing

Immediately call a poison center or doctor/physician IF SWALLOWED: rinse mouth. Do NOT induce vomiting

In case of fire: Use Water spray, fog or regular foam for extinction

Precautionary Statements - Storage

Store locked up

Precautionary Statements - Disposal

Dispose of contents/container to an approved waste disposal plant

Other Hazards

Very toxic to aquatic life with long lasting effects

3. COMPOSITION/INFORMATION ON INGREDIENTS

| Chemical Name | CAS No | Weight-% |
|---------------------|-----------|----------|
| Sodium hypochlorite | 7681-52-9 | 9-16 |
| Sodium hydroxide | 1310-73-2 | 0.1-2 |

^{**}If Chemical Name/CAS No is "proprietary" and/or Weight-% is listed as a range, the specific chemical identity and/or percentage of composition has been withheld as a trade secret.**

4. FIRST-AID MEASURES

First Aid Measures

General Advice Immediately call a poison center or doctor/physician.

Eye Contact 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 or

doctor/physician.

Skin Contact IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin

with water/shower. Wash contaminated clothing before reuse. Get medical attention if

necessary.

Inhalation Remove victim to fresh air and keep at rest in a position comfortable for breathing.

Immediately call a poison center or doctor/physician.

Ingestion IF SWALLOWED: rinse mouth. Do NOT induce vomiting. Drink large volumes of milk or

water. Never give anything by mouth to an unconscious person. Call a physician or Poison

Control Center.

Most important symptoms and effects

Symptoms Causes severe skin burns and eye damage.

Indication of any immediate medical attention and special treatment needed

Notes to Physician Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Suitable Extinguishing Media

Water spray (fog). Foam.

Unsuitable Extinguishing Media Not determined.

Specific Hazards Arising from the Chemical

Material is corrosive. May intensify fire; oxidizer.

Hazardous Combustion Products Chlorine gas.

Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal PrecautionsUse personal protective equipment as required.

For Emergency Responders Caution-material is an oxidizer.

Environmental Precautions Prevent from entering into soil, ditches, sewers, waterways and/or groundwater. See

Section 12, Ecological Information. See Section 13: DISPOSAL CONSIDERATIONS.

Methods and material for containment and cleaning up

Methods for Containment Prevent further leakage or spillage if safe to do so.

Methods for Clean-Up For small spills: Wipe up product and rinse affected area with water. For large spills -

confine spill, soak up with approved absorbent, shovel product into approved container for disposal. Flush spill area with water, collect rinse water in containers for proper disposal. Small spills may be permitted to be flushed to a sanitary sewer. Check with local authorities

before proceeding.

7. HANDLING AND STORAGE

Precautions for safe handling

Advice on Safe Handling Handle in accordance with good industrial hygiene and safety practice. Use personal

protection recommended in Section 8. Avoid contact with skin, eyes or clothing. Do not breathe dust/fume/gas/mist/vapors/spray. Wash face, hands, and any exposed skin thoroughly after handling. Follow all SDS/label precautions even after container is emptied because it may retain product residues. Keep away from heat. Take any precaution to avoid

mixing with combustibles.

Conditions for safe storage, including any incompatibilities

Storage Conditions Keep container tightly closed and store in a cool, dry and well-ventilated place. Keep/store

only in original container. Protect from extreme temperatures. Store locked up. Do not store

near combustible materials.

Incompatible Materials Flammable/combustible materials. Organic materials.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines

| Chemical Name | ACGIH TLV | OSHA PEL | NIOSH IDLH |
|------------------|------------------------------|--|------------------------------|
| Sodium hydroxide | Ceiling: 2 mg/m ³ | TWA: 2 mg/m ³ | IDLH: 10 mg/m ³ |
| 1310-73-2 | | (vacated) Ceiling: 2 mg/m ³ | Ceiling: 2 mg/m ³ |

Appropriate engineering controls

Engineering Controls Apply technical measures to comply with the occupational exposure limits. Ensure

adequate ventilation, especially in confined areas. Eyewash stations. Showers.

Individual protection measures, such as personal protective equipment

Eye/Face Protection Chemical anti-splash safety goggles.

Skin and Body Protection Wear suitable protective clothing. Avoid contact with skin. Protective gloves should be

worn.

Respiratory Protection Under normal conditions, respirator is not normally required. Ensure adequate ventilation,

especially in confined areas.

General Hygiene Considerations Wash contaminated clothing before reuse. Wash face, hands and any exposed skin

thoroughly after handling.

9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Physical State Liquid

AppearanceClear yellow liquidOdorChlorineColorClear, YellowOdor ThresholdNot determined

<u>Property</u> <u>Values</u> <u>Remarks • Method</u>

pH 12.0-13.0

Melting Point/Freezing Point Not determined

Boiling Point/Boiling Range Not determined

Flash Point > 93 °C / > 200 °F CC (closed cup)
Evaporation Rate Not determined

Flammability (Solid, Gas)
Upper Flammability Limits
Lower Flammability Limit
Vapor Pressure
Vapor Density

Not determined
Not applicable
Not applicable
Not determined
Not determined
Not determined
Not determined

Specific Gravity 1.05

Water Solubility Completely soluble Solubility in other solvents Not determined

Partition Coefficient
Auto-ignition Temperature
Decomposition Temperature
Kinematic Viscosity
Dynamic Viscosity
Explosive Properties
Not determined

10. STABILITY AND REACTIVITY

Reactivity

Not reactive under normal conditions.

Chemical Stability

Stable under recommended storage conditions.

Possibility of Hazardous Reactions

None under normal processing.

Hazardous Polymerization Hazardous polymerization does not occur.

Conditions to Avoid

Excessive heat. Keep away from flammable and combustible substances.

Incompatible Materials

Flammable/combustible materials. Organic materials.

Hazardous Decomposition Products

Chlorine gas.

11. TOXICOLOGICAL INFORMATION

Information on likely routes of exposure

Product Information

Eye Contact Causes severe eye damage.

Skin Contact Causes severe skin burns.

Inhalation Avoid breathing vapors or mists.

Ingestion Do not taste or swallow.

Component Information

| Chemical Name | Oral LD50 | Dermal LD50 | Inhalation LC50 |
|----------------------------------|--------------------|-------------------------|-----------------|
| Water | > 90 mL/kg (Rat) | - | - |
| 7732-18-5 | | | |
| Sodium hypochlorite 7681-52-9 | = 8200 mg/kg (Rat) | > 10000 mg/kg (Rabbit) | - |
| Sodium hydroxide 1310-73-2 | - | = 1350 mg/kg (Rabbit) | - |

Information on physical, chemical and toxicological effects

Symptoms Please see section 4 of this SDS for symptoms.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

Carcinogenicity

The table below indicates whether each agency has listed any ingredient as a carcinogen. However, the product as a whole has not been tested. Group 3 IARC components are "not classifiable as human carcinogens".

| Chemical Name | ACGIH | IARC | NTP | OSHA |
|---------------------|-------|---------|-----|------|
| Sodium hypochlorite | | Group 3 | | |
| 7681-52-9 | | | | |

IARC (International Agency for Research on Cancer)

Group 3 IARC components are "not classifiable as human carcinogens"

Numerical measures of toxicity

Not determined

12. ECOLOGICAL INFORMATION

Ecotoxicity

Very toxic to aquatic life with long lasting effects.

Component Information

| Chemical Name | Algae/aquatic plants | Fish | Toxicity to | Crustacea |
|---------------------|-------------------------|------------------------------|----------------|-----------------------------|
| | | | microorganisms | |
| Sodium hypochlorite | 0.095: 24 h Skeletonema | 0.06 - 0.11: 96 h Pimephales | | 2.1: 96 h Daphnia magna |
| 7681-52-9 | costatum mg/L EC50 | promelas mg/L LC50 | | mg/L EC50 0.033 - 0.044: 48 |
| | | flow-through 4.5 - 7.6: 96 h | | h Daphnia magna mg/L |
| | | Pimephales promelas mg/L | | EC50 Static |
| | | LC50 static 0.4 - 0.8: 96 h | | |
| | | Lepomis macrochirus mg/L | | |
| | | LC50 static 0.28 - 1: 96 h | | |
| | | Lepomis macrochirus mg/L | | |
| | | LC50 flow-through 0.05 - | | |
| | | 0.771: 96 h Oncorhynchus | | |
| | | mykiss mg/L LC50 | | |
| | | flow-through 0.03 - 0.19: 96 | | |
| | | h Oncorhynchus mykiss | | |
| | | mg/L LC50 semi-static 0.18 - | | |
| | | 0.22: 96 h Oncorhynchus | | |
| | | mykiss mg/L LC50 static | | |
| Sodium hydroxide | | 45.4: 96 h Oncorhynchus | | |
| 1310-73-2 | | mykiss mg/L LC50 static | | |

Persistence/Degradability

Not determined.

Bioaccumulation

Not determined.

Mobility

Not determined

Other Adverse Effects

Not determined

13. DISPOSAL CONSIDERATIONS

Waste Treatment Methods

Disposal of Wastes Disposal should be in accordance with applicable regional, national and local laws and

regulations.

Contaminated Packaging Disposal should be in accordance with applicable regional, national and local laws and

regulations.

California Hazardous Waste Status

| Chemical Name | California Hazardous Waste Status |
|------------------|-----------------------------------|
| Sodium hydroxide | Toxic |
| 1310-73-2 | Corrosive |

14. TRANSPORT INFORMATION

Note Please see current shipping paper for most up to date shipping information, including

exemptions and special circumstances. Based on package size, product may be eligible for

limited quantity exception.

DOT

UN/ID No UN1791

Proper Shipping Name Hypochlorite solutions

Hazard Class 8
Packing Group III

<u>IATA</u>

UN/ID No UN1791

Proper Shipping Name Hypochlorite solutions

Hazard Class 8
Packing Group III

IMDG

UN/ID No UN1791

Proper Shipping Name Hypochlorite solutions

Hazard Class 8
Packing Group III

Marine Pollutant This material may meet the definition of a marine pollutant

15. REGULATORY INFORMATION

International Inventories

Not determined

Legend:

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

ENCS - Japan Existing and New Chemical Substances

IECSC - China Inventory of Existing Chemical Substances

KECL - Korean Existing and Evaluated Chemical Substances

PICCS - Philippines Inventory of Chemicals and Chemical Substances

US Federal Regulations

CERCLA

This material, as supplied, contains one or more substances regulated as a hazardous substance under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302)

| Chemical Name | Hazardous Substances RQs | CERCLA/SARA RQ | Reportable Quantity (RQ) |
|---------------------|--------------------------|----------------|--------------------------|
| Sodium hypochlorite | 100 lb | | RQ 100 lb final RQ |
| 7681-52-9 | | | RQ 45.4 kg final RQ |
| Sodium hydroxide | 1000 lb | | RQ 1000 lb final RQ |
| 1310-73-2 | | | RQ 454 kg final RQ |

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372

CWA (Clean Water Act)

This product contains the following substances which are regulated pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42)

| Component | CWA - Reportable Quantities | CWA - Toxic Pollutants | CWA - Priority Pollutants | CWA - Hazardous Substances |
|---|--------------------------------|------------------------|---------------------------|-------------------------------|
| Sodium hypochlorite 7681-52-9 (9-16) | 100 lb | | | X |
| Sodium hydroxide 1310-73-2 (0.1-2) | 1000 lb | | | Х |

US State Regulations

California Proposition 65

This product does not contain any Proposition 65 chemicals.

U.S. State Right-to-Know Regulations

| Chemical Name | New Jersey | Massachusetts | Pennsylvania |
|----------------------------------|------------|---------------|--------------|
| Sodium hypochlorite 7681-52-9 | X | X | X |
| Sodium hydroxide 1310-73-2 | X | X | X |

16. OTHER INFORMATION

| NFPA | Health Hazards | Flammability | Instability | Special Hazards |
|-------|----------------|----------------|------------------|----------------------------|
| | Not determined | Not determined | Not determined | Not determined |
| HMIS_ | Health Hazards | Flammability | Physical Hazards | Personal Protection |
| | 3 | 0 | 1 | В |

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Disclaimer

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

End of Safety Data Sheet