

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

1.1. Product identifier

Product form : Mixture
Product name : **Flo-Klor**
Product code : 9983

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

Use of the substance/mixture : Sodium Hypochlorite Solution

1.3. Details of the supplier of the safety data sheet

Flo-Kem
19402 Susana Rd.
Rancho Dominguez, CA 90221 - USA
T 310-632-7124 - F 310-631-7496
<http://www.flo-kem.com>

1.4. Emergency telephone number

Emergency number : CHEMTEL: 800-255-3924

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

Classification (GHS-US)

Met. Corr. 1 H290
Skin Corr. 1B H314
Eye Dam. 1 H318
STOT SE 3 H335
Aquatic Acute 1 H400
Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms :



Signal word :

Danger

Hazard statements :

May be corrosive to metals.
Causes severe skin burns and eye damage.
Causes serious eye damage.
May cause respiratory irritation.
Very toxic to aquatic life.
Toxic to aquatic life with long lasting effects.

Precautionary statements :

Keep only in original container.
Do not breathe mist, vapors.
Wash hands and forearms thoroughly after handling.
Use only outdoors or in a well-ventilated area.
Avoid release to the environment.
Wear eye protection, face protection, protective clothing, protective gloves.
If swallowed: rinse mouth. Do NOT induce vomiting.
If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
If inhaled: Remove person to fresh air and keep comfortable for breathing.
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.
Call a POISON CENTER/doctor/physician if you feel unwell.
Wash contaminated clothing before reuse.

Flo-Klor

Safety Data Sheet

Absorb spillage to prevent material damage.
Collect spillage.
Store in a well-ventilated place. Keep container tightly closed.
Store locked up.
Store in corrosive resistant container or with a resistant inner liner.
Dispose of contents/container in accordance with Local, State, and Federal regulations.

2.3. Hazard not otherwise classified (HNOC)

No additional information available

2.4. Unknown acute toxicity (GHS-US)

No data available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

(NOTE: If component displays the * (asterisk) symbol, the following statement applies.)

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

Full text of H-phrases: see section 16

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
sodium hypochlorite	(CAS No) 7681-52-9	10 - 15	Skin Corr. 1B, H314 Aquatic Acute 1, H400

(NOTE: If component displays the * (asterisk) symbol, the following statement applies.)

*Chemical name, CAS number and/or exact concentration have been withheld as a trade secret

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 to fresh air and keep at rest in a position comfortable for breathing. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after skin contact	: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. Immediately call a POISON CENTER or doctor/physician.
First-aid measures after eye contact	: 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.
First-aid measures after ingestion	: Rinse mouth. Do NOT induce vomiting. Immediately call a POISON CENTER or doctor/physician.

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

Symptoms/injuries	: Causes severe skin burns and eye damage.
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Harmful if swallowed. Burns to the gastric/intestinal mucosa. FOLLOWING SYMPTOMS MAY APPEAR LATER: Abdominal pain. Gastrointestinal complaints.

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

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media	: Extinguishing media for surrounding fires. Adapt extinguishing media to the environment.
Unsuitable extinguishing media	: No unsuitable extinguishing media known.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: DIRECT FIRE HAZARD: Non combustible. INDIRECT FIRE HAZARD. Reactions involving a fire hazard: see "Reactivity Hazard".
Explosion hazard	: INDIRECT EXPLOSION HAZARD: Reactions with explosion hazards: see "Reactivity Hazard".

Flo-Klor

Safety Data Sheet

Reactivity : Decomposes on exposure to UV light. If the product is involved in a fire, it can release toxic chlorine gases. Decomposes slowly on exposure to air: oxidation resulting in increased fire or explosion risk and release of toxic and corrosive gases/vapors (chlorine). This reaction is accelerated on exposure to light, on exposure to temperature rise and on exposure to (some) metals. Reacts violently with (some) acids: release of toxic and corrosive gases/vapors (chlorine). Reacts with (some) metals and their compounds: release of highly flammable gases/vapors (hydrogen).

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.
Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection.
Other information : No additional information available.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Isolate from fire, if possible, without unnecessary risk.

6.1.1. For non-emergency personnel

Protective equipment : Protective gloves.
Protective clothing.
Protective goggles.
Respiratory protection.
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. Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

For containment : Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. If reacting: dilute toxic gas/vapor with water spray.
Methods for cleaning up : Spill must not return in its original container. Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed : May be corrosive to metals.
Precautions for safe handling : Comply with the legal requirements. Do not get in eyes, on skin, or on clothing. Do not breathe mist, vapors. Do not discharge the waste into the drain. Carry operations in the open/under local exhaust/ventilation or with respiratory protection. Ensure good ventilation of the work station. Keep container tightly closed. Observe normal hygiene standards. Use only outdoors or in a well-ventilated area. Use personal protective equipment as required.
Hygiene measures : Do not eat, drink or smoke when using this product. Wash contaminated clothing before reuse. Wash hands and forearms thoroughly after handling. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Provide local exhaust or general room ventilation. Comply with applicable regulations.
Storage conditions : Protect from sunlight.
Incompatible products : Strong acids. Oxidizing agent.
Storage area : Store in a cool, dry well-ventilated area. Keep container tightly closed when not in use. Keep out of direct sunlight.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

No data available

Flo-Klor

Safety Data Sheet

8.2. Exposure controls

Personal protective equipment	: Avoid all unnecessary exposure.
Hand protection	: Wear protective gloves.
Eye protection	: Chemical goggles or face shield.
Skin and body protection	: Wear suitable protective clothing.
Respiratory protection	: Where exposure through inhalation may occur from use, respiratory protection equipment is recommended. In case of insufficient ventilation, wear suitable respiratory equipment.
Appropriate engineering controls	: Handle in accordance with good industrial hygiene and safety practice. Wash hands before breaks and at the end of workday.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: Colorless to pale yellow
Odor	: Bleach
Odor threshold	: No data available
pH	: 12 - 14
Melting point	: No data available
Freezing point	: -10 °F
Boiling point	: 104 °F
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: No data available
Explosive limits	: No data available
Vapor pressure	: 12.1 mm Hg
Vapor density	: No data available
Specific Gravity @ 77° F	: 1.150 - 1.220
Solubility	: Soluble in water.
Partition Coefficient n-Octanol-Water	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity	: No data available

9.2. Other information

VOC content	: 0 g/l
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SECTION 10: Stability and reactivity

10.1. Reactivity

Decomposes on exposure to UV light. If the product is involved in a fire, it can release toxic chlorine gases. Decomposes slowly on exposure to air: oxidation resulting in increased fire or explosion risk and release of toxic and corrosive gases/vapors (chlorine). This reaction is accelerated on exposure to light, on exposure to temperature rise and on exposure to (some) metals. Reacts violently with (some) acids: release of toxic and corrosive gases/vapors (chlorine). Reacts with (some) metals and their compounds: release of highly flammable gases/vapors (hydrogen).

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Contact with acids liberates toxic gas.

10.4. Conditions to avoid

Direct sunlight. Extremely high or low temperatures.

10.5. Incompatible materials

Strong acids. Oxidizers. Organic materials. Ammonia. May be corrosive to metals.

10.6. Hazardous decomposition products

Oxygen. Hydrogen. Chlorine. Thermal decomposition generates : Corrosive vapors.

Flo-Klor

Safety Data Sheet

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Causes severe skin burns and eye damage. pH: 12 - 14
Serious eye damage/irritation	: Causes serious eye damage. pH: 12 - 14
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified

sodium hypochlorite (7681-52-9)

IARC group	3 - Not Classifiable
Reproductive toxicity	: Not classified
Specific target organ toxicity (single exposure)	: May cause respiratory irritation.
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries after inhalation	: May cause respiratory irritation.
Symptoms/injuries after skin contact	: Caustic burns/corrosion of the skin.
Symptoms/injuries after eye contact	: Causes serious eye damage.
Symptoms/injuries after ingestion	: Harmful if swallowed. Burns to the gastric/intestinal mucosa. FOLLOWING SYMPTOMS MAY APPEAR LATER: Abdominal pain. Gastrointestinal complaints.

SECTION 12: Ecological information

12.1. Toxicity

sodium hypochlorite (7681-52-9)

LC50 fish 1	0.026 mg/l (96 h; Oncorhynchus kisutch; Chlorine)
EC50 Daphnia 1	2.1 mg/l (96 h; Daphnia magna)
EC50 other aquatic organisms 1	0.2 mg/l (24 h; Skeletonema costatum; Biomass)
LC50 fish 2	0.19 mg/l (96 h; Pimephales promelas)
Threshold limit algae 1	0.84 mg/l (24 h; Chlorophyta; Biomass)

12.2. Persistence and degradability

sodium hypochlorite (7681-52-9)

Persistence and degradability	Biodegradability: not applicable.
Biochemical oxygen demand (BOD)	Not applicable
Chemical oxygen demand (COD)	Not applicable
ThOD	Not applicable
BOD (% of ThOD)	Not applicable

12.3. Bioaccumulative potential

sodium hypochlorite (7681-52-9)

Bioaccumulative potential	Not bioaccumulative.
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12.4. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations	: Dispose of contents/container in accordance with Local, State, and Federal regulations.
Ecology - waste materials	: Avoid release to the environment.

SECTION 14: Transport information

Flo-Klor

Safety Data Sheet

14.1. UN Number

UN-No.(DOT) : 1791
Other information : Under 49 CFR 173.154(c) and (b)(2): This product may be shipped as ORM-D or Limited Quantity if the inner packagings do not exceed 5 L (1.3 gallons) or 5.0 kg (11 lbs). This provision does not apply to transportation by vessel or aircraft, except where other means of transportation is impracticable.

14.2. UN proper shipping name

DOT Proper Shipping Name : UN1791, Hypochlorite Solutions, 8, PGIII

SECTION 15: Regulatory information

15.1. US Federal regulations

All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

sodium hypochlorite (7681-52-9)

Listed on the United States TSCA (Toxic Substances Control Act) inventory

RQ (Reportable quantity, section 101(14) of CERCLA as published on EPA's List of Lists) :

100 lb

SARA Section 311/312 Hazard Classes

Immediate (acute) health hazard

15.2. International regulations

CANADA

EU-Regulations

No additional information available

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

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

Not classified

15.2.2. National regulations

EPA Registration Number : 10693-20001

Flo-Klor

Safety Data Sheet

EPA Comments

: This chemical is a pesticide registered by the United States Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets (SDS), and for workplace labels of non-pesticide chemicals. The pesticide label also includes other important information, including directions for use.

DANGER

KEEP OUT OF REACH OF CHILDREN

PRECAUTIONARY STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. May cause severe skin irritation or chemical burns to broken skin. Causes eye damage. May be fatal if swallowed. Avoid breathing vapors. Do not get in eyes, on skin, or on clothing. Wear goggles or face shield and rubber gloves when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking or using tobacco. Remove contaminated clothing and wash before reuse. Vacate poorly ventilated areas as soon as possible. Do not return until odors have dissipated.

ENVIRONMENTAL HAZARDS

This product 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 into sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or regional office of U.S. Environmental Protection Agency.

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.

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

SECTION 16: Other information

Abbreviations Legend:

Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Chronic 2	Hazardous to the aquatic environment - Chronic Hazard Category 2
Eye Dam. 1	Serious eye damage/eye irritation Category 1
Met. Corr. 1	Corrosive to metals Category 1
Skin Corr. 1B	Skin corrosion/irritation Category 1B
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H290	May be corrosive to metals
H314	Causes severe skin burns and eye damage
H318	Causes serious eye damage
H335	May cause respiratory irritation
H400	Very toxic to aquatic life
H411	Toxic to aquatic life with long lasting effects

Disclaimer

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