



SAVIN PRODUCTS COMPANY, INC.

# SAFETY DATA SHEET

Date Issued	12 March 2015
Document Nbr	
Revision	0
Date Revised	12 March 2015

Savklor

Prepared to U.S. OSHA, CMA, ANSI, Canadian WHMIS Standards

## SECTION 1 - IDENTIFICATION

<b>1.1 TRADE NAME:</b>	<b>Savklor</b>
SYNONYMS:	None
CAS#:	Mixture
<b>1.2 PRODUCT USE:</b>	Cleaner
<b>1.3 SUPPLIER/MANUFACTURER'S NAME:</b>	<b>Savin Products Company, Inc.</b>
ADDRESS:	214 High Street, Randolph, MA 02368 USA
BUSINESS PHONE:	(781) 961-2744
EMAIL:	<a href="mailto:info@savinproducts.com">info@savinproducts.com</a>
WEB SITE INFORMATION:	<a href="http://www.savinproducts.com">www.savinproducts.com</a>
<b>1.4 EMERGENCY PHONE NUMBERS:</b>	1 (800) 424-9300 (CHEMTREC U.S. - 24 HRS.)

## SECTION 2 - HAZARD IDENTIFICATION

### EMERGENCY OVERVIEW:

**Product Description:** This product is a greenish-yellow liquid. Chlorine or bleach odor..

**Health Hazards: Corrosive.** Exposure to this product causes severe skin burns and eye damage. Inhalation of mist or vapors may cause irritation to mucous membranes and respiratory tract. This product contains ingredient(s) that are suspected or known to cause cancer.

**Flammability Hazards:** This product is a Non-flammable product with a flash point >200F

**Reactivity Hazards:** This product is not normally reactive.

**Environmental Hazards:** The environmental effects of this product have not been fully investigated. Individual ingredients are toxic to aquatic life with long lasting effects.

**Emergency Considerations:** Emergency responders must wear the proper personal protective equipment (and have appropriate fire-suppression equipment) suitable for the situation to which they are responding.

US DOT SYMBOLS



CANADA (WHMIS) SYMBOLS

Complies with WHMIS 2015

GHS Hazard Symbols



Signal Word: **DANGER!**

### 2.1 GHS LABELING AND HAZARD CLASSIFICATION:

This product does meet the definition of a hazardous substance or preparation as defined by the OSHA and described in 29 CFR 1910.1200(d).

**Component(s) Contributing to Classification(s):**

### 2.2 LABEL ELEMENTS

#### GHS Hazard Classification(s):

- Corrosive to Metals - Category 1
- Skin Corrosion/Irritation - Category 1B
- Eye Damage/Irritation - Category 1
- STOT single exposure - Category 3

**Hazard Statement(s):**

May be corrosive to metals.  
 Causes severe skin burns and eye damage.  
 May cause respiratory irritation.

**Precautionary Statement(s):**

Wash hands thoroughly after handling.  
 Keep in original container.  
 Do not breathe mist, vapors or spray.  
 Use only in a well ventilated area.  
 Wear protective gloves/clothing and eye/face protection.

**Response Statement(s):**

**IF SWALLOWED:** Call a Poison Control Center/Doctor.  
**IF SWALLOWED:** Rinse mouth. Do **NOT** induce vomiting.  
**IF ON SKIN:** Wash with plenty of water.  
 If skin irritation or rash occurs: Get medical advice/attention.  
 Take off contaminated clothing and wash it before reuse.  
 Call a Poison Center/Doctor if you feel unwell.  
**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. If eye irritation persists: Get medical attention.

**Storage Statement(s):**

Store in a well-ventilated place. Keep cool.  
 Store locked up.

**Disposal Statement(s):**

Dispose of contents/container in accordance with local/regional/national/international regulations.

**2.3 HEALTH HAZARDS OR RISKS FROM EXPOSURE:**

**SYMPTOMS OF OVEREXPOSURE BY ROUTE OF EXPOSURE:** The most significant routes of overexposure for this product are by contact with skin or eyes, and inhalation of mists or spray. The symptoms of overexposure are described in the following paragraphs.

**ACUTE:**

**INHALATION:** Inhalation of mist from this product causes severe irritation to mucous membranes and respiratory tract.  
**SKIN CONTACT:** Exposure to this product can cause skin irritation. Prolonged exposure can cause severe irritation.  
**EYE CONTACT:** Contact with eyes can cause serious irritation with redness, tearing, and pain. Possible corneal damage.  
**INGESTION:** Ingestion may cause severe burns to the mucous membranes of the digestive tract.

**CHRONIC:** The effects of long term, low level exposures to this product have not been determined.

**TARGET ORGANS:** **ACUTE:** Eyes

**CHRONIC:** No data available for this product.

**SECTION 3 - COMPOSITION and INFORMATION ON INGREDIENTS**

COMPOSITION	WT. PERCENTAGE	CAS #	HAZARD CLASSIFICATION
Water	80-90	7732-18-5	Not Classified
Sodium Hypochlorite	10-20	7681-25-9	Corrosive to Metals – Category 1; Skin Corrosion/Irritation Category 1B; Eye Damage/Irritation - Category 1; STOT single exposure - Category 1; Acute Toxicity-Oral – Category 4,
Sodium Hydroxide	0.3	1310-73-2	Corrosive to Metals – Category 1; Skin Corrosion/Irritation - Category 1B; Eye Damage/Irritation - Category 1; STOT single exposure - Category 1; Acute Toxicity-Oral – Category 4,
Balance of other ingredients are less than 1% in concentration (or 0.1% for carcinogens, reproductive toxins, or respiratory sensitizers)			

**NOTE: ALL WHMIS** required information is included in appropriate sections based on the ANSI Z400.1-2010 format.

**SECTION 4 - FIRST-AID MEASURES****4.1 DESCRIPTION OF FIRST AID MEASURES:**

**EYE CONTACT:** If product enters the eyes, open eyes while under gentle running water for at least 15 minutes. Seek medical attention if irritation persists.

**SKIN CONTACT:** Wash skin thoroughly after handling. Seek medical attention if irritation develops and persists. Remove contaminated clothing. Launder before re-use.

**INHALATION:** If breathing becomes difficult, remove victim to fresh air. If necessary, use artificial respiration to support vital functions. Seek

medical attention if breathing difficulty continues.

**INGESTION:** If product is swallowed, call physician or poison control center for most current information. If professional advice is not available, do not induce vomiting. Never induce vomiting or give diluents (milk or water) to someone who is unconscious, having convulsions, or who cannot swallow. Seek medical advice. Take a copy of the label and SDS with the victim to the health professional.

**MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:** None known.

**4.2 SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED:**

Contact with eyes may cause severe irritation with redness and tearing with possible tissue damage. Prolonged skin exposure may cause moderate to severe skin irritation.

**4.3 RECOMMENDATIONS TO PHYSICIANS:**

Treat symptoms and eliminate overexposure.

**SECTION 5 - FIRE-FIGHTING MEASURES**

**5.1 FIRE EXTINGUISHING MATERIALS:**

Use fire extinguishing methods below:

**Water Spray:** Yes

**Foam:** Yes

**Halon:** Yes

**Carbon Dioxide:** Yes

**Dry Chemical:** Yes

**Other:** Any "C" Class

**5.2 UNUSUAL FIRE AND EXPLOSION HAZARDS:**

Combustion may produce noxious and irritating gases. Hazardous combustion products include chlorine, carbon oxides, irritating fumes and smoke.

**Explosion Sensitivity to Mechanical Impact:** No

**Explosion Sensitivity to Static Discharge:** No

**FLASH POINT:** >200°F (>93°C)

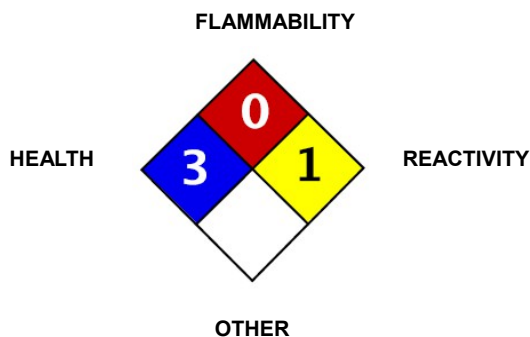
**AUTOIGNITION TEMPERATURE:** Not applicable.

**FLAMMABLE LIMITS (in air by volume, %):** Lower: NA, Upper: NA

**5.3 SPECIAL FIRE-FIGHTING PROCEDURES:**

Incipient fire responders should wear eye protection. Structural firefighters must wear Self-Contained Breathing Apparatus and full protective equipment. Isolate materials not yet involved in the fire and protect personnel. Move containers from fire area if this can be done without risk; otherwise, cool with carefully applied water spray. If possible, prevent runoff water from entering storm drains, bodies of water, or other environmentally sensitive areas.

**NFPA RATING SYSTEM**



**HMIS RATING SYSTEM**

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM			
HEALTH HAZARD (BLUE)			3
FLAMMABILITY HAZARD (RED)			0
PHYSICAL HAZARD (YELLOW)			1
PROTECTIVE EQUIPMENT			
EYES	RESPIRATORY	HANDS	BODY
	See Sect 8		See Sect 8
For Routine Industrial Use and Handling Applications			

**Hazard Scale:** 0=Minimal, 1=Slight, 2=Moderate, 3=Serious, 4=Severe, \*=Chronic Hazard

## SECTION 6 - ACCIDENTAL RELEASE MEASURES

### 6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, AND EMERGENCY PROCEDURES:

See Section 8.2 for Exposure Controls.

### 6.2 ENVIRONMENTAL PRECAUTIONS:

Keep spilled material out of all sewers and open bodies of water.

### 6.3 SPILL AND LEAK RESPONSE:

Contain spill if safe to do so. Cover or absorb spilled liquid with sand, earth, or other inert material. Clean up spill immediately and place in appropriate containers. Keep spill out of sewers and open bodies of water. **CAUTION:** Floor may become slippery.

Dispose of in accordance with applicable Federal, State, and local procedures (see Section 13 Disposal Considerations).

## SECTION 7 – HANDLING AND STORAGE

### 7.1 PRECAUTIONS FOR SAFE HANDLING:

As with all chemicals, avoid getting this product **ON YOU** or **IN YOU**. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors/mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately.

### 7.2 STORAGE AND HANDLING PRACTICES:

Containers of this product must be properly labeled. Store containers in a cool, dry location. Keep container tightly closed when not in use. Keep away from acids, metals (e.g., tin, aluminum, zinc and alloys containing these metals), oxidizing agents and organic materials.

### 7.3 SPECIFIC USES:

Developed specifically for laundry bleaching.

## SECTION 8 – EXPOSURE CONTROLS – PERSONAL PROTECTION

### 8.1 EXPOSURE PARAMETERS:

CHEMICAL NAME	CAS#	ACGIH TLV	OSHA TWA
Water	7732-18-5	Not Listed	Not Listed
Sodium Hypochlorite	7681-25-9	Not Listed	Not Listed
Sodium Hydroxide	1310-73-2	2 mg/m <sup>3</sup> (Ceiling)	2 mg/m <sup>3</sup>

### 8.2 EXPOSURE CONTROLS:

**VENTILATION AND ENGINEERING CONTROLS:** Use with adequate ventilation to ensure exposure levels are maintained below the limits provided above.

*The following information on appropriate Personal Protective Equipment is provided to assist employers in complying with OSHA regulations found in 29 CFR Subpart I (beginning at 1910.132) or equivalent standard of Canada.*

**RESPIRATORY PROTECTION:** Respiratory protection is required if the concentrations exceed the TLV. If respiratory protection is warranted. Wear NIOSH approved respirators. Advice should be sought from respiratory protection specialist,

**EYE PROTECTION:** Safety glasses or goggles are recommended. If necessary, refer to U.S. OSHA 29 CFR 1910.133 or appropriate Standards of Canada.

**HAND PROTECTION:** Chemical resistant gloves are recommended to prevent skin contact. If necessary, refer to U.S. OSHA 29 CFR 1910.138 or appropriate Standard of Canada.

**BODY PROTECTION:** Not normally required when using this protect. If necessary, refer to U.S. OSHA 29 CFR 1910.132 (also OSHA Technical Manual). or appropriate Standard of Canada.

## SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

### 9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES:

**APPEARANCE (PHYSICAL STATE) AND COLOR:** Greenish-yellow liquid

**ODOR:** Chlorine or bleach odor.

**ODOR THRESHOLD:** Not available.

**PH:** 12.5

**MELTING/FREEZING POINT:** Not available.

**BOILING POINT:** Approx. 104°C (220°F)

**FLASH POINT:** Not available

**EVAPORATION RATE (n-BuAc=1):** Not available.

**FLAMMABILITY (SOLID, GAS):** Not applicable.

**UPPER/LOWER FLAMMABILITY OR EXPLOSION LIMITS:** Not available.

**VAPOR PRESSURE (mm Hg @ 68°F (20°C)):** Not available.

**VAPOR DENSITY:** Not available.

**RELATIVE DENSITY:** Not available.

**SPECIFIC GRAVITY:** 1.20 @ 25°C

**SOLUBILITY IN WATER:** Completely soluble.

**WEIGHT PER GALLON:** 10.0 Lb/gal @ 25°C

**PARTITION COEFFICIENT (n-octanol/water):** Not available.

**AUTO-IGNITION TEMPERATURE:** Not applicable.

**DECOMPOSITION TEMPERATURE:** Not available.

**VISCOSITY:** Not available.

### 9.2 OTHER INFORMATION:

No additional information available.

## SECTION 10 – STABILITY AND REACTIVITY

### 10.1 REACTIVITY:

Not normally reactive.

### 10.2 STABILITY:

Stable under the recommended storage and handling conditions prescribed. Solutions slowly decompose with air to form chlorine gas.

### 10.3 POSSIBILITY OF HAZARDOUS REACTIONS:

Hazardous polymerization will not occur.

### 10.4 CONDITIONS TO AVOID:

Avoid heat and open flame. Avoid contact with acids, metals (e.g., tin, aluminum, zinc and alloys containing these metals), oxidizing agents and organic materials.

### 10.5 MATERIALS WITH WHICH SUBSTANCE IS INCOMPATIBLE:

Strong acids, strong oxidizing agents, and reactive metals.

### 10.6 HAZARDOUS DECOMPOSITIONS PRODUCTS:

Solutions slowly decompose with air to form a chlorine gas. Refer also to hazardous combustion products section 5

## SECTION 11 – TOXICOLOGICAL INFORMATION

### 11.1 INFORMATION ON TOXICOLOGICAL EFFECTS:

Toxicity data is not available for this mixture. See below for individual ingredient acute toxicity data.

Sodium Hypochlorite (CAS#7681-52-9):

LC50 (4 hr) (Inhalation, rat) - >5250 mg/m<sup>3</sup> (>5.25 mg/L)

LD50 (Oral, rat) – 8800 mg/kg (12.5%)

LD50 (Oral, mouse) – 5800 mg/kg

LD50 (Dermal, rabbit) - >20g/kg (12.5%)

Sodium Hydroxide (CAS#1310-73-2):

LDLo (Oral, rabbit) – 500 mg/kg

**SUSPECTED CANCER AGENT:** The following ingredients are not found on one or more of the following lists: **FEDERAL OSHA Z LIST, NTP, CAL/OSHA, IARC** and therefore are not considered to be, or suspected to be, a cancer-causing agent by these agencies.

None.

**IRRITANCY OF THE PRODUCT:** Contact with this product can be irritating to exposed skin and eyes.

**SENSITIZATION TO THE PRODUCT:** This product is not considered a skin and respiratory sensitizer.

**REPRODUCTIVE TOXICITY INFORMATION:** This product does not contain an ingredient that may cause reproductive and fetal effects.

**SPECIFIC TARGET ORGAN TOXICITY – SINGLE EXPOSURE:** Classified as a specific target organ toxicity – single exposure: May cause respiratory irritation.

**SPECIFIC TARGET ORGAN TOXICITY – REPEATED EXPOSURE:** Not classified as a specific target organ toxicity – repeated exposure.

**CHRONIC EFFECTS:** The effects of long term, low level exposures to this product have not been determined.

## SECTION 12 – ECOLOGICAL INFORMATION

### 12.1 TOXICITY:

No toxicity data available for this mixture. The product should not be allowed to enter drains or water courses, or be deposited where it can affect ground or surface waters. See below for individual ingredient ecotoxicity data.

Sodium Hypochlorite (CAS#7681-52-9):

LC50/96h (Rainbow trout) – 0.059 mg/L)

NOEC/21 day (Tidewater silverside)) – 0.04 mg/L

M Factor – 10

EC50/48h (Daphnia) – 0.032 mg/L (Water flea)

NOEC/21 day (Daphnia) – 0.02 mg/L (Mysid shrimp)

EC50/96h (Algae) – 46 mg/L (Red algae)

Sodium Hydroxide (CAS#1310-73-2):

EC50/48h (Daphnia) – 40 mg/L (Water flea)

### 12.2 PERSISTENCE AND DEGRADABILITY:

No specific data available for this mixture.

### 12.3 BIOACCUMULATIVE POTENTIAL:

No specific data available for this mixture.

### 12.4 MOBILITY IN SOIL:

No specific data available for this mixture.

### 12.5 OTHER ADVERSE EFFECTS:

**ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.**

## SECTION 13 – DISPOSAL CONSIDERATIONS

### 13.1 WASTE TREATMENT METHODS:

This product, if disposed of as shipped, is considered a hazardous waste as specified in 40 CFR 261.

Waste disposal must be in accordance with appropriate U.S. Federal, State, and local regulations, and those of Canada.

## SECTION 14 – TRANSPORTATION INFORMATION

### 14.1 U.S. DEPARTMENT OF TRANSPORTATION (DOT) SHIPPING REGULATIONS:

This product is defined as hazardous (per 49 CFR 172.101) by the U.S. Department of Transportation. NOTE: Limited quantities of corrosive material (Class 8) in Packing Group III are excepted from labeling requirements, unless the material is offered for transportation or transported by aircraft, and are excepted from the specification packaging requirements of this subchapter when packaged in combination packagings according to this paragraph. For transportation by aircraft, the package must also conform to the applicable requirements of sec. 173.27 of this part. A limited quantity package that conforms to the provisions of this section is not subject to the shipping paper requirements of subpart C of part 172 of this subchapter, unless the material meets the definition of a hazardous substance, hazardous waste, marine pollutant, or is offered for transportation and transported by aircraft or vessel, and is eligible for the exceptions provided in sec. 173.156 of this part. In addition, shipments of limited quantities are not subject to subpart F (Placarding) of part 172 of this subchapter. Each package must conform to the packaging requirements of subpart B of this part and may not exceed 30 kg (66 lb) gross weight.

### 14.2 UN IDENTIFICATION NUMBER:

**UN 1791**

### 14.3 PROPER SHIPPING NAME:

Hypochlorite Solution

### 14.4 HAZARD CLASS NUMBER AND DESCRIPTION:

8

### 14.5 PACKING GROUP:

III

DOT LABELS REQUIRED: Corrosive



NORTH AMERICAN EMERGENCY RESPONSE GUIDEBOOK NUMBER: 154

**14.6 ENVIRONMENTAL HAZARDS (RQ QUANTITY):**

Not applicable.

This mixture meets the criteria for an environmentally hazardous material according to the IMDG Code. Very toxic to aquatic life. Very toxic to aquatic life with long lasting effects.

**14.7 SPECIAL PRECAUTION FOR USER:**

Use caution and avoid exposure.

**14.8 INTERNATIONAL TRANSPORTATION:****INTERNATIONAL AIR TRANSPORT ASSOCIATION SHIPPING INFORMATION (IATA):** This product is considered as dangerous goods.**Note:** Packaging does not comply with IATA regulations and cannot be shipped by aircraft.**INTERNATIONAL MARITIME ORGANIZATION SHIPPING INFORMATION (IMO):** This product is considered as dangerous goods.**SECTION 15 – REGULATORY INFORMATION****15.1 SAFETY, HEALTH, AND ENVIRONMENTAL REGULATIONS SPECIFIC FOR THE SUBSTANCE OR MIXTURE:**

See below

**15.2 UNITED STATES REGULATIONS:****SARA REPORTING REQUIREMENTS:** This product is not subject to the reporting requirements of Sections 302, 304, and 313 of Title III of the Superfund Amendments and Reauthorization Act.**TSCA:** All components in this product are listed on the US Toxic Substances Control Act (TSCA) inventory of chemicals.**SARA 311/312: Hazardous - Yes****ACUTE HEALTH: YES      CHRONIC HEALTH: NO      FIRE: NO      REACTIVITY: NO****U.S. SARA THRESHOLD PLANNING QUANTITY:** There are no specific Threshold Planning Quantities for this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lb (4,540 kg) may apply, per 40 CFR 370.20.**U.S. CERCLA REPORTABLE QUANTITY (RQ):** Sodium Hypochlorite (CAS#7681-52-9) -100 lb/45.4 kg  
Sodium Hydroxide (CAS#1310-73-2) – 1000 lb/454kg**CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65):** This product does not contain ingredients that are on the California Proposition 65 lists.**15.3 CANADIAN REGULATIONS:****CANADIAN DSL/NDLS INVENTORY STATUS:** All components are DSL listed, NDSL listed, and/or are exempt from listing.**OTHER CANADIAN REGULATIONS:** Not applicable.**CANADIAN ENVIRONMENTAL PROTECTION ACT (CEPA) PRIORITIES SUBSTANCES LIST:** This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the SDS contains all of the information required by those regulations.**CANADIAN WHMIS CLASSIFICATION AND SYMBOLS:** This product is categorized as a Controlled Product. It meets one or more of the criteria for a controlled product provided in Part IV of the Canadian Controlled Products Registration (CPR), WHMIS classification: CLASS E (Corrosive Material).**SECTION 16 – OTHER INFORMATION****16.1 ABBREVIATIONS AND ACRONYMS:****EPA:** United State Environmental Protection Agency**IMDG:** International Maritime Code for Dangerous Goods**DOT:** US Department of Transportation**IATA:** International Air Transport Association**ACGIH:** American Conference of Governmental Industrial Hygienists**NFPA:** National Fire Protection Association (USA)**HMIS:** Hazardous Materials Identification System (USA)

DATE OF CURRENT REVISION: March 12, 2015

DATE OF LAST REVISION: March 12, 2015

**Disclaimer:** To the best of Savin Products Company Inc. knowledge, the information contained herein is reliable and accurate as of this date; however, accuracy, suitability, or completeness is not guaranteed and no warranties of any type either express or implied are provided. The information contained herein relates only to this specific product.