# MATERIAL SAFETY DATA SHEET

## 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Identification
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Product Name: Bleach 5-12.5% active Sodium Hypochlorite
Synonyms: Sodium Hypochlorite 5-12.5%, Liquid Bleach, Liquid Chlorine, Liquichlor, NuWash CHLOR, Cloro, Chlorine Bleach

Company Identification
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HASA, INC.
Pittsburg, CA 94565 USA
(209) 234-5930 (For product information)
1-800-424-9300 or 1-703-527-3887 (CHEMTREC)

SPECIAL NOTES:
Distributed by NuGenTec, 7200 CE Dixon St., Stockton, CA 95206. (888) 99-Nugen (86436).

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

100.0% Bleach 5% active Sodium Hypochlorite

CONTAINING:
HAZARDOUS AND/OR REGULATED COMPONENTS

| Chemical Name | Amount | CAS Number |
|---|---|---|
| SODIUM HYPOCHLORITE | 5.0-12.5 % | 7681-52-9 |

NON-HAZARDOUS COMPONENTS

| Chemical Name | Amount | CAS Number |
|---|---|---|
| WATER | Balance | 7732-18-5 |

(See Section 8 for exposure guidelines)
(See Section 15 for regulatory information)

COMPOSITION COMMENT:
This Product Meets FDA/USDA requirements for cleaning in the food processing industry.

HAZARDS DISCLOSURE

This product contains hazardous materials as defined by the OSHA Hazard Communication Standard 29 CFR 1910.1200.

As defined under Sara 311 and 312, this product contains no known hazardous materials.

## 3. HAZARDS IDENTIFICATION

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**********   EMERGENCY OVERVIEW   **********
*                                           *
*                  DANGER                   *
*                                           *
*  Keep out of reach of children.  Do not take          *
*  internally.  Avoid contact with skin or eyes, upon   *
*  contact with skin or eyes, wash off with water.      *
*                                           *
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HMIS Rating -
Health: 2
Flammability: 0
Reactivity: 0
Personal Protection Index: C

NFPA Rating -
Health: 2
Flammability: 0
Reactivity: 0
Special Hazard: Oxidizer, Reactive, Corrosive

NFPA/HMIS Definitions: (0-Least, 1-Slight, 2-Moderate, 3-High, 4-Extreme). These values are obtained using the guidelines or published evaluations prepared by the National Fire Protection Association (NFPA) or the National Paint and Coating Association (for HMIS ratings).

POTENTIAL HEALTH EFFECTS

EYE:
Substance causes severe eye irritation and may cause permanent tissue damage.

SKIN:
Causes skin burns, irritation, and possible allergic reaction.

INHALATION:
Harmful if inhaled. High vapor concentrations are irritating to the eyes, nose, throat, and lungs. May cause irritation of the upper respiratory passages.

INGESTION:
Corrosive and may cause severe and permanent damage to mouth, throat, and stomach. May cause diarrhea, nausea, abdominal cramps. May cause vomiting.

REPRODUCTIVE HAZARDS:
No known reproductive hazards.

CARCINOGENICITY INFORMATION:
This product has been shown not to be carcinogenic, it is not included as a carcinogen by IARC, OSHA, NTP, or EPA.

TARGET ORGAN:
None.

MEDICAL CONDITIONS AGRAVATED BY EXPOSURE:
Asthma and respiratory and cardiovascular disease.

## 4. FIRST AID MEASURES

EYE CONTACT FIRST AID:
Flush eye with water for 15 minutes. After initial flushing, remove any contact lenses and continue flushing for at least 15 minutes. Get immediate medical attention.

SKIN CONTACT FIRST AID:
In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Thoroughly wash (or discard) clothing and shoes before reuse.

INHALATION FIRST AID:
If exposed to excessive levels of dusts or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

INGESTION FIRST AID:
DO NOT induce vomiting, but give large quantities of water to drink and get medical attention. Never give anything by mouth to an unconscious person.

STATEMENT OF PRACTICAL TREATMENT:
Always have plenty of water available for first aid.

## 5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES
COC Flash Point: None
TCC Flash Point: None
Autoignition Temperature: None

FLAMMABLE LIMITS IN AIR
LEL: None
UEL: None

EXTINGUISHING MEDIA:
Will not burn.

FIRE & EXPLOSION HAZARDS:
During a fire, irritating and highly toxic gases (chlorine gas) may be generated by thermal decomposition or combustion.

FIRE FIGHTING INSTRUCTIONS:
Evacuate area and fight fire from a safe distance. As in any fire, wear self-contained breathing apparatus pressure-demand MSHA/NIOSH (approved or equivalent) and full protective gear. Avoid breathing decomposition products. Contain runoff water. Contaminated extinguishing water must be disposed of in accordance with applicable regulations. Containers can build up pressure if exposed to heat (fire).

COMBUSTION PRODUCTS:
Hazardous concentrations of chlorine may be formed.

## 6. ACCIDENTAL RELEASE MEASURES

SAFEGUARDS (PERSONNEL):
Protect skin and eyes from exposure. Avoid breathing vapor. Ventilate spill area. Wear appropriate personal protective equipment.

INITIAL CONTAINMENT:
Absorb spills with inert material.

LARGE SPILLS PROCEDURE:
If this material is released into a work area, evacuate the area immediately. Wear a self-contained breathing apparatus and appropriate Personal protection (See Exposure Controls, Personal Protection section). Absorb spill with inert material (e g, dry sand or earth), then place in a chemical waste container. Dispose of in an approved sanitary landfill. After removal, flush contaminated area thoroughly with water. Avoid runoff into storm sewers and ditches which lead to waterways. Clean up spills immediately, observing precautions in Protective Equipment section. Retain all contaminated water for removal and treatment. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

US regulations require reporting spills of this material that could reach any surface waters (the toll free number for the US Coast Guard National Response Center is 800/424-8802).

SMALL SPILLS PROCEDURE:
Absorb spills with inert material. After cleaning spill with absorbant material wash area with soap and water. Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements.

## 7. HANDLING AND STORAGE

RECOMMENDED STORAGE TEMPERATURE
Minimum: 0.0 C (32.0 F)
Maximum: 21.1 C (70.0 F)

SHELF LIFE: (in original, sealed containers)
up to 12 months @ 0.0 C
up to 6 months @ 21.1 C

HANDLING (PERSONNEL):
Wash thoroughly after handling. Use only in a well-ventilated area. Follow all MSDS/label precautions even after container is emptied because they may retain product residues. Empty drums should be completely drained, properly bunged, and promptly returned to a drum reconditioner, or properly disposed of.

HANDLING (PHYSICAL ASPECTS):
Store in a cool dry area. Store in tightly closed container. Avoid mixing with strongly acidic solutions. Provide appropriate ventilation.

STORAGE PRECAUTIONS:
Avoid extreme temperatures, keep from freezing and do not store in direct sunlight. Do not stack drums more than two pallets high. Keep container tightly closed. Keep from freezing. Protect containers from physical

damage. Store away from heat. Store in a well ventilated place.

SPECIAL SENSITIVITY:
Store in the dark at the lowest possible temperature, but keep from freezing.

MISCELLANEOUS:
Do not stack over two pallets high.

## 8. EXPOSURE CONTROLS / PERSONAL PROTECTION

ENGINEERING CONTROLS:
If user operations generate dust, fume, or mist, use ventilation to keep exposure to airborne contaminants below the exposure limit. Local exhaust ventilation may be necessary to control any air contaminants to within their TLVs during the use of this product. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower.

EYE / FACE PROTECTION REQUIREMENTS:
When splashing of the material may occur, chemical goggles and a face shield are recommended. Wear a NIOSH/MSHA approved positive pressure air supplied respirator in situations where there may be potential for airborne exposure.

SKIN PROTECTION REQUIREMENTS:
Wear protective gloves to minimize skin contact. When prolonged or frequently repeated contact could occur, use protective clothing impervious to this material.

RESPIRATORY PROTECTION REQUIREMENTS:
Atmospheric levels should be maintained below the exposure guideline. When there is potential for airborne exposures in excess of applicable limits, wear NIOSH/MSHA approved respiratory protection.

EXPOSURE GUIDELINES:
No Information Available.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

| | |
|---|---|
| FORM | Liquid |
| COLOR | Greenish-yellow to Pale Yellow |
| ODOR | Chlorine-like |
| BOILING POINT | Decomposes with heat F |
| VAPOR PRESSURE | no data psia |
| VAPOR DENSITY | no data (Air = 1) |
| SOLUBILITY IN WATER | Complete |
| SPECIFIC GRAVITY | 1.2 (Water = 1) |
| BULK DENSITY | 10.0 |
| MELTING/FREEZING POINT | <32 F |
| PH | >11 |
| % VOLATILES | 5-12.5% % |
| EVAPORATION RATE | no data |
| MOLECULAR WEIGHT | 74.5 (active ingredient-NaCl) |

## 10. STABILITY AND REACTIVITY

STABILITY:
Decomposes as heated and over time.

POLYMERIZATION:
Hazardous polymerization will not occur.

INCOMPATIBILITY WITH OTHER MATERIALS:
Iron, copper, acids, ammonium compounds, organics, other oxidizers.

DECOMPOSITION:
Chlorine gas.

CONDITIONS TO AVOID:
decomposition will result from contact with iron or copper.

MISCELLANEOUS:
Avoid high heat, sunlight and ultra-violet light.

## 11. TOXICOLOGICAL INFORMATION

EYE EFFECTS:
Can cause severe eye irritation including burns and or permanent damage.

SKIN EFFECTS:
Contact may cause skin irritation, rash or burns.

ACUTE ORAL EFFECTS:
May cause diarrhea and or vomiting along with tissue burns.

ACUTE INHALATION EFFECTS:
Inhalation of this material is irritating to the nose, mouth, throat and lungs. It may also cause burns to the respiratory which may cause permanent lung damage.

REPRODUCTION AND BIRTH EFFECTS:
There are no known or reported effects on reproductive function or fetal development.

CHRONIC EFFECTS /:
There are no know or reported effects from repeated exposure.

GENETIC TOXICITY:
It is judged that the risk of genetic damage is insignificant for sodium hypochlorite because of its biocidal activity, lack of mutagenicity in vivo, and failure to produce a carcinogenic response.

## 12. ECOLOGICAL INFORMATION

ENVIRONMENTAL FATE:
This material is harmful to aquatic life.

sodium Hypochlorite
Test Code: Aquatic toxicity

Species: bluegill
Results: LC50 - 0.6 mg/l.
Reference: LC50

## 13. DISPOSAL CONSIDERATIONS

WASTE DISPOSAL:
Treat or dispose of waste material in accordance with all local, state/provincial, and national requirements. For additional waste disposal information contact your local NuGenTec representative at (888) 99-NuGen or (209) 234-5930.

CONTAMINATED MATERIALS:
Wash contaminated clothing before reuse.

CONTAINER DISPOSAL:
Clean out containers prior to disposal. Empty containers can be dangerous if used to store toxic, flammable, or reactive materials. Misuse of containers may be hazardous. Keep container closed and drum bungs in place.

## 14. TRANSPORTATION INFORMATION

| | |
|---|---|
| PRODUCT LABEL .....: | Bleach 5-12.5% active Sodium Hypochlorite |
| D.O.T. SHIPPING NAME .....: | Hypochlorite solution |
| TECHNICAL SHIPPING NAME ...: | 5-12.5% hypochlorite solutions, 8, UN1791, PG III |
| D.O.T. HAZARD CLASS .....: | Corrosive |
| UN NUMBER .....: | 1791 |
| PRODUCT RQ (LBS) .....: | 250 |
| D.O.T. LABEL .....: | Corrosive Liquid |
| D.O.T. PLACARD .....: | #8 |
| BULK CLASS .....: | N/A |
| PACKAGE CLASS .....: | 55 |

MISCELLANEOUS:
emergency guide # 60.

## 15. REGULATORY INFORMATION

EEC Symbols and Indications of Danger:
Corrosive (C)

R-Phrases:
R20/21/22 - Harmful by inhalation, in contact with skin, and if swallowed.

S-Phrases:
S1/2 - Keep locked up and out of the reach of children.
S13 - Keep away from food, drink, and animal feeding stuffs.
S14.2 - Keep away from aluminum, magnesium, zinc, and their alloys.
S15 - Keep away from heat.
S18 - Handle and open container with care.
S20 - When using, do not eat or drink.
S23.1 - Do not breathe gas/fumes/vapor.
S24/25 - Avoid contact with skin and eyes.
S26 - In case of contact with eyes, rinse immediately with plenty of

water and seek medical advice.
S27.1 - Take off immediately all contaminated clothing, shoes, and any other item in contact with skin.
S29 - Do not empty into drains.
S3.1 - Keep in a cool place (>-7.2).
S3/7/9 - Keep container tightly closed in a cool, well-ventilated place.
S38 - In case of insufficient ventilation, wear suitable respiratory equipment.
S40.1 - To clean the floor and all objects contaminated by this material, use water.
S61.1 - Avoid release to the environment.

WHMIS Hazard Symbols:
Class E - Corrosive Material

Canadian Disclosure List
sodium Hypochlorite (7681-52-9)

CERCLA Hazardous Substances
sodium Hypochlorite (7681-52-9) -- RQ 100 lb

FDA (FOOD AND DRUG ADMINISTRATION):
This Product Meets FDA/USDA requirements for cleaning in the food processing industry.

MISCELLANEOUS INFORMATION:
This material or all of its components are listed on the Inventory of Existing Chemical Substances under the Toxic Substance Control Act (TSCA). This material or all of its components are listed on the Canadian Domestic Substances List (DSL). This material or all of its components are listed (or considered as having been notified) on the European Inventory of Existing Chemical Substances (EINECS).

## 16. OTHER INFORMATION

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TITLE .....: VP Research & Development
APPROVAL DATE .....: June 14, 2002
SUPERCEDES DATE ...: September 20, 2001
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ADDITIONAL INFORMATION:
The data in this Material Safety Data Sheet relates only to the specific material designated herein. It does not relate to use in combination with any other material or in any process.

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END OF MSDS
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