

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 1 of 9

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME: Sodium Hypochlorite 10% sol.
DOCUMENT IDENTIFIER: 449500
SYNONYMS: Bleach
CHEMICAL FAMILY NAME: Inorganic, salt
NFPA HAZARD RATINGS (H-F-R): 2-0-1
HMIS HAZARD RATINGS (H-F-R): 2-0-1
DISTRIBUTOR: Brenntag Southwest, Inc.
IN CASE OF EMERGENCY CALL: 1-800-424-9300

MSDS PREPARED BY: Brenntag Southwest, inc.
610 Fisher Road
Longview, TX 75604
(903) 759-7151

2. COMPOSITION/INFORMATION ON INGREDIENTS

<u>INGREDIENTS</u>	<u>CAS NUMBERS</u>	<u>Percent</u>
Sodium Hypochlorite	007681-52-9	10

Remainder consists of non-hazardous and/or other ingredients below reportable levels.
Trace impurities and additional material names not listed above may also appear in the Regulatory Information Section (Section 15) towards the end of the MSDS.
These materials may be listed for local "Right to Know" compliance and for other reasons.

3. HAZARDOUS IDENTIFICATION

EMERGENCY OVERVIEW: DANGER! Oxidizer! May cause burns to skin and eyes.
May be harmful if swallowed or inhaled.

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 2 of 9

POTENTIAL HEALTH EFFECTS:

SKIN CONTACT: May cause moderate to severe irritation consisting of discomfort, itching, reddening and swelling.
Contact with the skin can cause chemical burns.

SKIN ABSORPTION: No data available

EYES: Contact with the eyes causes redness, tearing, and blurred vision.
May cause burns to eyes.

INGESTION: Ingestion causes pain and inflammation of the mouth, gastrointestinal tract, and erosion of the mucous membranes.

INHALATION: Inhalation may cause irritation, burning sensation, coughing, wheezing, laryngitis, shortness of breath, or headache.
May cause lung damage/edema.

MEDICAL CONDITIONS AGGRAVATED:

No data available

This product does not contain any chemicals reportable under California Proposition 65.
Components found on one of the OSHA designated carcinogen lists are listed below.

<u>INGREDIENT</u>	<u>NTP</u>	<u>IARC</u>	<u>OSHA</u>
Sodium Hypochlorite	N	N	N

4. FIRST AID MEASURES

SKIN CONTACT: Remove contaminated clothing and shoes.
Wash exposed areas with soap and water.
Call a physician if irritation persists.

EYE CONTACT: Flush eyes with water for at least 15 minutes.
Get immediate medical attention.

INGESTION: Do not induce vomiting. Give 1-2 glasses of water to dilute. If vomiting occurs spontaneously, keep head below hips to prevent aspiration of liquid into the lungs.
Do not give anything by mouth to an unconscious person.
Get immediate medical attention.

INHALATION: Remove to fresh air.
If breathing has stopped, give artificial respiration.
Get immediate medical attention.

NOTES TO PHYSICIAN: No data available

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 3 of 9

5. FIRE FIGHTING MEASURES

FIRE AND EXPLOSIVE PROPERTIES

FLASH POINT:	Not applicable °F
FLASH POINT:	Not applicable °C
FLASH POINT METHOD:	Not applicable
LOWER FLAMMABILITY LIMIT:	Not available
UPPER FLAMMABILITY LIMIT:	Not available
AUTOIGNITION TEMPERATURE:	Not available °F, Not available °C
FLAMMABILITY CLASSIFICATION:	Not applicable
EXTING. MEDIA:	This product is not flammable. Use extinguishing media for surrounding fire.
FIRE FIGHTING:	Use water spray to disperse vapors and to provide protection for persons attempting to stop leak. Cool fire-exposed containers with water spray.
PROTECTIVE EQUIPMENT:	Use NIOSH-approved self-contained breathing apparatus and complete protective clothing when fighting chemical fires.
FIRE HAZARDS:	Closed containers of this product may explode when exposed to excessive heat. During a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. Avoid contact with combustible materials. May ignite or explode on contact with combustible materials.

6. ACCIDENTAL RELEASE MEASURES

SMALL SPILLS:	Contain spill and ventilate area. Absorb on inert media and containerize for disposal.
LARGE SPILLS:	Contain spill and ventilate area. Permit only trained personnel wearing full protective equipment to enter the spill area. Collect the spill in a waste container or remove with a vacuum truck. Prevent spill from entering natural watercourses.

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 4 of 9

PROTECTIVE EQUIPMENT\ SPILL-RELEASE INSTRUCTIONS:

Do not use combustible absorbents. Wear complete protective clothing when cleaning up chemical spills. Spills and releases may have to be reported to federal and/or local authorities. See the Regulatory Information section (section 14) regarding reporting requirements.

7. HANDLING AND STORAGE

HANDLING: Avoid contact with skin, eyes, and clothing.

Avoid breathing product vapors and mists.

Do not take internally.

Wash thoroughly after handling this material.

Use this material only with adequate ventilation.

STORAGE: Keep container closed when not in use.

This material should be stored in a dry, cool place. Store in well-ventilated areas and at moderate temperatures.

Protect against physical damage.

The empty container is hazardous.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:

Good general ventilation (typically 10 air changes/hour) should be used. Ventilation rates should be matched to conditions. Use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits.

PERSONAL PROTECTIVE EQUIPMENT

SKIN: Wear protective gloves made of neoprene or rubber.

EYE: Wear chemical safety goggles.

RESPIRATORY: If engineering controls do not maintain airborne concentrations below recommended limits, wear a NIOSH-approved respirator for dusts and mists.

OTHER: Emergency showers, eyewash stations, and fire blankets should be accessible. Wear protective clothing.

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 5 of 9

EXPOSURE GUIDELINES:

INGREDIENT	ACGIH TLV	ACGIH STEL	OSHA PEL	OSHA STEL
Sodium Hypochlorite	N/EST	N/EST	N/EST	N/EST

N/EST = Not established

See 29 CFR 1910.1000 (D) (2) and ACGIH "Threshold Limit Values for Chemical Substances and Physical Agents Biological Exposure Indices" booklet (Appendix C) for the determination of exposure limits for mixtures. Consult an industrial hygienist or similar professional to confirm that the calculated exposure limits are appropriate.

9. PHYSICAL AND CHEMICAL PROPERTIES

PHYSICAL STATE:	Liquid
APPEARANCE	Clear, pale yellow or green
ODOR:	Chlorine
SPECIFIC GRAVITY:	1.2
SOLUBILITY (IN WATER):	Complete
BOILING POINT (°F):	Not available
BOILING POINT (°C):	Not available
FREEZING POINT (°F):	Not available
FREEZING POINT (°C):	Not available
MELTING POINT (°F):	Not available
MELTING POINT (°C):	Not available
PRODUCT pH:	12-13
VAPOR PRESSURE:	17.5 @ 20 C
REFERENCE PRESSURE:	mm Hg
VAPOR DENSITY:	Not available
EVAPORATION RATE:	Not available
VISCOSITY:	Not available
% VOLATILES:	Not available

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 6 of 9

10. STABILITY AND REACTIVITY

STABILITY:	Stable
CONDITIONS TO AVOID:	Exposure to high temperatures should be minimized.
INCOMPATIBILITY:	Combustible materials Acids Amines Reducing agents Metals
DECOMPOSITION:	Oxides of chlorine
POLYMERIZATION WILL OCCUR:	No

11. TOXICOLOGICAL INFORMATION

IMMEDIATE EFFECTS:	May cause burns to skin and eyes. May be harmful if swallowed or inhaled. Irritation data: 10 mg eyes-rabbit moderate. Toxicity data: 1 gm/kg oral-woman TD Lo; 45 mg/kg intravenous-man TD Lo; 5800 mg/kg oral-mouse LD50; 140 mg/kg/9 weeks continuous-rat TD Lo.
CARCINOGENICITY:	No data available
MUTAGENICITY:	Mutation in microorganisms-Salmonella typhimurium 1 mg/plate (-S9); DNA repair-Escherichia coli 20 ug/disc; DNA damage-Escherichia coli 420 umol/L; phage inhibition capacity-Escherichia coli 103 ug/well; micronucleus test-non-mammalian species multiple 200 ppb; cytogenetic analysis-non-mammalian species multi 120 ug/L; cytogenetic analysis-human lymphocyte 100 ppm 24 hours; sister chromatid exchange-human embryo 149 mg/L; cytogenetic analysis-hamster lung 100 mg/L.
EPIDEMIOLOGY:	No data available
TERATOGENICITY:	No data available
REPRODUCTIVITY:	No data available
NEUROTOXICITY:	No data available

12. ECOLOGICAL INFORMATION

Ecotoxicity Data: Fish toxicity: 94.0 ug/L 96 hours LC50 (mortality) CUTthroat trout (*Oncorhynchus clarki*). Invertebrate toxicity: 31.6 ug/L 7 hours IC50 (species diversity) Protozoan phylum (Protozoa). Algal toxicity: 90 ug/L 96 hours LC50 (mortality) Algae, phytoplankton, algal mat (Algae). Phytotoxicity: 230 ug/L 35 hours (biomass) Curles pondweed (*Potamogeton crispus*). Other toxicity: 2.1 ug/L 28 days (chlorophyll) Aquatic community (Aquatic community).

13. DISPOSAL CONSIDERATIONS

RCRA WASTE:	Yes
RCRA ID NUMBER:	D002 (If pH >12.5)
VOC CONTENT (lbs/gal):	Not applicable
Waste Disposal Procedure:	Discharge, treatment, or disposal may be subject to Federal, State, or Local laws. State and Local regulations and restrictions are complex and may differ from Federal disposal regulation. The information offered here is for the product as shipped. Use and/or alterations to the product such as mixing with other materials may significantly change the characteristics of the material and alter the RCRA Classification and the proper disposal method.

14. TRANSPORTATION INFORMATION

D.O.T. SHIPPING NAME:	Hypochlorite solutions (Sodium Hypochlorite)
D.O.T. HAZARD CLASS:	Class 8, No division Corrosive materials
DOT ID NUMBER:	UN 1791
DOT PACKING GROUP:	II
DOT RQ (lbs):	1000
CONTRIBUTING CHEMICAL:	Sodium Hypochlorite
OTHER:	Labels required: Corrosive
MARINE POLLUTANT:	No

Sodium Hypochlorite, 10%
Brenntag Southwest

02-03-05
Page 8 of 9

OTHER REGULATORY INFORMATION

IMDG HAZARD CLASS: 8 - Corrosive materials

ICAO HAZARD CLASS: 8 - Corrosive

15. REGULATORY INFORMATION

FEDERAL REGULATIONS

TSCA (Toxic Substance Control Act):

Yes

SECTION 311/312 HAZARD CLASS:

Immediate (acute) health hazard

SARA TITLE III (Superfund Amendments and Reauthorization Act):

<u>INGREDIENTS</u>	<u>CAS NUMBERS</u>	<u>Section</u> <u>313</u>	<u>Section</u> <u>302</u>
Sodium Hypochlorite	007681-52-9	N	N

**WHMIS CLASSIFICATION
(CANADA):**

Class E

FOREIGN INVENTORY:

EINECS (European Inventory of Existing
Commercial Chemical Substances)
Canadian DSL (Domestic Substances List)

STATE RIGHT TO KNOW

CALIFORNIA PROP 65

This product does not contain any chemicals reportable under California Proposition 65.

MASSACHUSETTS SUBSTANCE LIST:

Sodium Hypochlorite

NEW JERSEY SUBSTANCE LIST:

Sodium Hypochlorite

**PENNSYLVANIA HAZARDOUS SUBSTANCE
LIST:**

Sodium Hypochlorite

16. OTHER INFORMATION

CREATION DATE: 10/10/1997

REVISION DATE: 02/03/2005

DISCLAIMER:

The information herein is presented in good faith and is believed to be correct as of the date hereof. However, Brenntag Southwest, Inc. makes no representation as to the completeness and accuracy thereof. Users must make their own determination as to the suitability of the product for their purposes prior to use. No representations or warranties, either expressed or implied, of merchantability, fitness for a particular purpose, or of any other nature with respect to the product or to the information herein is made hereunder. Brenntag Southwest, Inc. shall in no event be responsible for any damages of whatsoever nature directly or indirectly resulting from the publication, or use of, or reliance upon the information contained herein.

EXPLANATION OF ABBREVIATIONS:

N/EST = Not Established

N/AP = Not Applicable

N/AV = Not Available