

Product Name: CP Salt
Revision Date: 05/11/2010
Revision No.: 4

OCEAN NETWORK EMERGENCY PHONE 1-888-289-1911

THIS MATERIAL SAFETY DATA SHEET (MSDS) HAS BEEN PREPARED IN COMPLIANCE WITH THE FEDERAL OSHA HAZARD COMMUNICATION STANDARD, 29 CFR 1910.1200. THIS PRODUCT MAY BE CONSIDERED TO BE A HAZARDOUS CHEMICAL UNDER THAT STANDARD. (REFER TO THE OSHA CLASSIFICATION IN SEC.I.) THIS INFORMATION IS REQUIRED TO BE DISCLOSED FOR SAFETY IN THE WORKPLACE. THE EXPOSURE TO THE COMMUNITY, IF ANY, IS QUITE DIFFERENT.

I - PRODUCT IDENTIFICATION

Product Name:	CP SALT
Synonyms:	Sodium Chloride
Chemical Family:	Inorganic salt
Formula:	NaCl
Use Description:	Source of chlorine and sodium
Hazard Classification:	Lung toxin, skin and eye irritant
Product Code:	105003
File No.:	MSDS0605

II - COMPONENT DATA

This Product Composition information presented here describes the major components and their concentrations found in this product and other information as required by OSHA. This is not, and should not be interpreted, or used as, a Product Specification or a detailed chemical analysis.

Established Federal OSHA PEL is provided. OSHA Agreement State PEL may be different.

Product Composition

CAS or Chemical Name:	Sodium chloride				
CAS Number:	7647-14-5				
Percentage Range:	94-100%				
Hazardous Per 29 CFR 1910.1200:	Yes				
Exposure Standards:	None Established, control as nuisance dust.				
		OSHA (PEL)		ACGIH (TLV)	
		PNOR 1		PNOC 2	
		ppm	mg/m ³	ppm	mg/m ³
	TWA (total):	N/A	15	N/A	10
	TWA (Respirable):	N/A	5	N/A	3
	CEILING:	N/A	None	N/A	None
	STEL:	N/A	None	N/A	None
	1. Particulates not otherwise regulated. 2. Particulates not otherwise classified.				

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CAS or Chemical Name:	Water
CAS Number:	7732-18-5
Percentage Range:	0-5%
Hazardous Per 29 CFR 1910.1200:	No
Exposure Standards:	None Established

CAS or Chemical Name:	Sodium hydroxide				
CAS Number:	1310-73-2				
Percentage Range:	<1.0%				
Hazardous Per 29 CFR 1910.1200:	Yes, pH.				
Exposure Standards:	OSHA (PEL) *		ACGIH (TLV)		
		ppm	mg/m ³	ppm	mg/m ³
	TWA:	N/A	2	N/A	None
	CEILING:	N/A	None	N/A	2
	STEL:	N/A	None	N/A	None

* Federal OSHA PEL. An Agreement State OSHA PEL may be different.

III - PRECAUTIONS FOR SAFE HANDLING AND STORAGE

DO NOT TAKE INTERNALLY. AVOID CONTACT WITH SKIN, EYES, AND CLOTHING. UPON CONTACT WITH SKIN OR EYES, WASH OFF WITH WATER.

STORAGE CONDITIONS:

DO NOT STORE AT TEMPERATURES ABOVE: 65 Deg. C (150 Deg. F)

Other:

May contain traces (<1%) of Sodium Hydroxide (NaOH)

PRODUCT STABILITY AND COMPATIBILITY:

SHELF LIFE LIMITATIONS:	None
INCOMPATIBLE MATERIALS FOR PACKAGING:	Metals
INCOMPATIBLE MATERIALS FOR STORAGE OR TRANSPORT:	None

IV - PHYSICAL DATA

Appearance:	Damp, white, crystalline solid
Melting Point:	Approximately 804 Deg.C (1479 Deg.F)
Boiling Point:	Not Applicable
Decomposition Temperature:	No Data
Specific Gravity:	2.17
Bulk Density:	No Data
pH @ 25° C:	11 to 12, may contain traces (<1%) of Sodium Hydroxide (NaOH)
Vapor Pressure @ 25° C:	Not Applicable

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Solubility in Water:	Approximately 26% by wt.
Volatiles, Percent by Weight:	0-5%
Evaporation Rate:	Not Applicable
Vapor Density:	Not Applicable
Molecular Weight:	58.45 (Active ingredient)
Odor:	None
Coefficient of Oil/Water Distribution:	No Data

V – PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

Personal Protection for Routine Use of Product:

Respiratory Protection:	If significant dusting occurs, wear a NIOSH-approved dust respirator.
Ventilation:	Local exhaust ventilation is recommended if significant dusting occurs. Otherwise, use general exhaust ventilation.
Skin and Eye Protection:	Use safety glasses.
Other:	

Equipment Specifications (When Applicable):

Respirator Type:	Wear NIOSH-approved respirator with HEPA filters.	
Protective Clothing Type: (This includes: gloves, boots, apron, protective suit.)	GLOVE TYPE:	Impervious
	BOOT TYPE:	Impervious
	APRON TYPE:	Impervious
	PROTECTIVE SUIT:	Impervious

VI – FIRE AND EXPLOSION HAZARD INFORMATION

Flammability Data:

Flammable:	No
Combustible:	No
Pyrophoric:	No
Flash Point:	Not Applicable
Autoignition Temperature:	Not Applicable
Flammable Limits at Normal Atmospheric Temperature and Pressure (Percent Volume in Air):	LEL: Not Applicable UEL: Not Applicable

NFPA Ratings:

Health:	Not Established
Flammability:	Not Established
Reactivity:	Not Established

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HMIS Ratings:

Health:	1
Flammability:	0
Reactivity:	0

Extinguishing Media:

Not Applicable

Fire Fighting Techniques and Comments:

Not Applicable

VII - REACTIVITY INFORMATION

Conditions Under Which This Product May Be Unstable:

Temperatures Above:	None
Mechanical Shock or Impact:	No
Electrical (Static) Discharge:	No
Other:	None known
Hazardous Polymerization:	Will not occur
Incompatible Materials:	Metals
Hazardous Decomposition:	None

Summary of Reactivity:

Oxidizer:	No
Pyrophoric:	No
Organic Peroxide:	No
Water Reactive:	No
Corrosive:	Corrodes metals

VIII - FIRST AID

Eyes

Immediately flush with large amounts of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Seek medical attention at once.

Skin

Immediately flush with water for 15 minutes. Wash the contaminated skin with soap and water. If irritation develops, seek medical attention. If clothing, shoes and/or jewelry come in contact with the product, they should be laundered before re-use.

Ingestion

Immediately drink large quantities of water. Induce vomiting. Seek medical attention at once. DO NOT give anything by mouth if the person is unconscious or if having convulsions.

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Inhalation

If person experiences nausea, headache or dizziness, person should stop work immediately and move to fresh air until these symptoms disappear. If breathing is difficult, administer oxygen, keep the person warm and at rest. Seek medical attention. In the event that an individual inhales enough vapor to lose consciousness, person should be moved to fresh air at once and seek medical attention immediately. If breathing has stopped, artificial respiration should be given immediately. In all cases, ensure adequate ventilation and provide respiratory protection before the person returns to work.

IX – TOXICOLOGY AND HEALTH INFORMATION

Routes of Absorption

Skin, eyes, inhalation, ingestion

Warning Statements and Warning Properties

CAN CAUSE EYE AND SKIN BURNS. CAN CAUSE RESPIRATORY IRRITATION AND LUNG DAMAGE IF HIGH CONCENTRATIONS ARE INHALED.

Human Threshold Response Data

Odor Threshold:	No data
Irritation Threshold:	No data
Immediately Dangerous to Life or Health:	Not established for the product. The IDLH for sodium hydroxide is 10 mg/m ³ .

Signs, Symptoms and Effects of Exposure

Inhalation

Acute:	Inhalation of this material may be severely irritating to the nose, mouth, throat, and lungs. It may also cause burns to the respiratory tract with the production of lung edema, which can result in shortness of breath, wheezing, choking, chest pain, and impairment of lung function. Inhalation of high concentrations may result in lung damage.
Chronic:	Repeated inhalation exposure may cause bronchitis, impairment of lung function and permanent lung damage.

Skin

Acute:	Dermal exposure can cause severe irritation and/or burns characterized by redness, swelling, and scab formation.
Chronic:	Repeated or prolonged skin exposure may cause permanent damage.

Eye

Severe irritation and/or burns can occur following eye exposure. Contact may cause impairment of vision and corneal damage.

Ingestion

Acute:	Irritation and/or burns can occur to the entire gastrointestinal tract,
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	including the stomach and intestines, characterized by nausea, vomiting, diarrhea, abdominal pain, bleeding, and/or tissue ulceration.
Chronic:	Chronic ingestion of significant amounts of this product is unlikely because of its acute corrosive action. Sodium chloride, which constitutes greater than 90% of the product, may cause or aggravate high blood pressure in some persons. It is unlikely that persons would ingest sufficient quantities during industrial use to cause or aggravate high blood pressure.

Medical Conditions Aggravated by Exposure

High blood pressure may be aggravated by oral exposure.

Interactions With Other Chemicals Which Enhance Toxicity

There are no chemicals known to enhance the toxicity of the product.

Animal Toxicology

Acute Target Organ Toxicity

Inhalation LC 50: No data
Dermal LD 50: > 2 g/kg (rabbit)
Oral LD 50: 3 g/kg (rat)
Irritation: Corrosive to skin, eyes, and respiratory tract.

Chronic Target Organ Toxicity

Laboratory test animals who were administered very high doses of sodium chloride via the oral route developed hypertension. Based on the high doses and exposure route necessary to produce such effects, the expected industrial exposure to this product would not result in a significant risk of adverse health effects.

Reproductive and Developmental Toxicity

Extremely high doses of sodium chloride administered orally have produced fetal malformations in laboratory animals. The predicted risk to humans of developing this effect from industrial exposure to CP salt is insignificant.

Carcinogenicity

A positive correlation between stomach cancer and high sodium chloride ingestion has been reported in some epidemiology studies. The risk of such an effect from industrial exposure to CP salt is insignificant.

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Mutagenicity

Concentrated solutions of sodium chloride have been shown to produce chromosome damage in vitro. This damage was caused by the osmotic effects of the salt solution and toxicity to the cells. These effects are not likely to be caused by industrial exposure to this material.

Aquatic Toxicity

The LC 50 (48-56 hours) of this product to aquatic organisms is greater than 1000 ppm.

X - TRANSPORTATION INFORMATION

THIS MATERIAL IS NOT REGULATED AS A DOT HAZARDOUS MATERIAL.

XI - SPILL AND LEAKAGE PROCEDURES

FOR ALL TRANSPORTATION ACCIDENTS, CALL CHEMTREC AT 800-424-9300.

Reportable Quantity: Not Applicable (Per 40 CFR 302.4)

Spill Mitigation Procedures:

Stop source of spill as soon as possible and notify appropriate personnel.

Air Release: Not Applicable

Water Release: This material is heavier than water and partially soluble in water. Stop flow of water if possible. Notify all water users of potential contamination.

Land Spill: Contain spill materials with the use of a dike or trench. Begin containerization or removal as soon as possible. Keep material as dry as possible. Material will form a brine solution when wet which is corrosive in nature. Decontaminate the spill area with a detergent and large amounts of water.

Spill Residues:

Dispose of per guidelines under Section 12, WASTE DISPOSAL.

Personal Protection for Emergency Spill and Firefighting Situations:

No extra protection required beyond that listed in Section 5. In case of fire, use normal fire fighting equipment.

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XII - WASTE DISPOSAL

If this product becomes a waste, it DOES NOT meet the criteria of a hazardous waste as defined under 40 CFR 261, in that it does not exhibit the characteristics of hazardous waste of Subpart C, nor is it listed as a hazardous waste under Subpart D.

As a nonhazardous solid waste it should be disposed of in accordance with local, state, and federal regulations by Disposal in a non-hazardous chemical landfill.

CARE MUST BE TAKEN TO PREVENT ENVIRONMENTAL CONTAMINATION FROM THE USE OF THIS MATERIAL. THE USER OF THIS MATERIAL HAS THE RESPONSIBILITY TO DISPOSE OF UNUSED MATERIAL, RESIDUES AND CONTAINERS IN COMPLIANCE WITH ALL RELEVANT LOCAL, STATE AND FEDERAL LAWS AND REGULATIONS REGARDING TREATMENT, STORAGE AND DISPOSAL FOR HAZARDOUS AND NONHAZARDOUS WASTES.

XIII - ADDITIONAL REGULATORY STATUS INFORMATION

TOXIC SUBSTANCES CONTROL ACT:

This substance is listed on the Toxic Substances Control Act inventory.

SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT TITLE III:

HAZARD CATEGORIES, PER 40 CFR 370.2:

HEALTH:

Immediate (Acute)

Delayed (Chronic)

PHYSICAL:

None

EMERGENCY PLANNING AND COMMUNITY RIGHT TO KNOW, PER 40 CFR 355, APP.A:

EXTREMELY HAZARDOUS SUBSTANCE - THRESHOLD PLANNING QUANTITY:

None Established

SUPPLIER NOTIFICATION REQUIREMENTS, PER 40 CFR 372.45:

None Established

California Prop 65 Components - This product is not listed, but it may contain elements known to the State of California to cause cancer or reproductive toxicity as listed under Proposition 65 State Drinking Water and Toxic Enforcement Act. For additional information, contact Olin Technical Services (800-299-6546).

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XIV - ADDITIONAL INFORMATION

MSDS REVISION STATUS: This is a revised MSDS edited by the Chlor/Alkali MSDS Control group.

XV - MAJOR REFERENCES

1. McKee, J. E. and H. W. Wolf, Eds., Water Quality Criteria, NTIS PB Report; (PB-82-188244), 2nd Ed., Springfield, VA: National Technical Information Services, 1963.
2. Lu, J. B and Y. M. Qin. 1987. Correlation between High Salt Intake and Mortality Rates for Oesophageal and Gastric Cancers in Henan Province, China. International Journal of Epidemiology, Vol. 16, No. 2, pp. 171-176. Guillermo, M., et al. 1985. Sodium Intake and Gastric Cancer. J. Cancer Res. Clin. Oncol. 109, pp. 42-45.
3. Imai, S., et al. 1986. Chronic Toxicity Test of KCl and NaCl in F344/Slc Rats. J. Nara Med. Ass., 37, pp. 115-127.
4. Joossens, J. V. and J. Geboers. 1983. Salt and Hypertension. Preventive Medicine, 12, pp. 53-59.
5. Nishimura, H. and S. Miyamoto. 1969. Teratogenic effects of sodium chloride in mice. Aetna Anat. 74. pp. 121-124.
6. Galloway, S. M., et al. 1987. Effects of high osmotic strength on chromosome aberrations, sister-chromatid exchanges and DNA strand breaks, and the relation to toxicity. Mutation Research, 189. pp. 15-25.
7. Ashby, J. 1985. The Genotoxicity of Sodium Saccharin and Sodium Chloride in Relation to Their Cancer-Promoting Properties. J. Chem. Toxic., Vol. 23, No. 4/5, pp. 507-519.

THE INFORMATION IN THIS MATERIAL SAFETY DATA SHEET SHOULD BE PROVIDED TO ALL WHO WILL USE, HANDLE, STORE, TRANSPORT, OR OTHERWISE BE EXPOSED TO THIS PRODUCT. THIS INFORMATION HAS BEEN PREPARED FOR THE GUIDANCE OF PLANT ENGINEERING, OPERATIONS AND MANAGEMENT AND FOR PERSONS WORKING WITH OR HANDLING THIS PRODUCT. OLIN BELIEVES THIS INFORMATION TO BE RELIABLE AND UP TO DATE AS OF THE DATE OF PUBLICATION, BUT MAKES NO WARRANTY THAT IT IS. ADDITIONALLY, IF THIS MATERIAL SAFETY DATA SHEET IS MORE THAN THREE YEARS OLD, YOU SHOULD CONTACT OLIN AT THE PHONE NUMBER LISTED BELOW TO MAKE CERTAIN THAT THIS SHEET IS CURRENT.

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