



MATERIAL SAFETY DATA SHEET

SECTION 1 -- CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

PRODUCT NAME	Germicidal Bleach 5.50%	PACK	4 / 1 gal.
PRODUCT CODE	11133575391		

EMERGENCY TELEPHONE NUMBERS

ISSUE DATE	April 19, 2005
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MANUFACTURER **KIK International**
STREET ADDRESS **2921 Corder Street**
CITY, STATE, ZIP **Houston, TX 77054**

Transportation: **1 800 255-3924***
* for spill, leak, fire or transport accident emergencies.
Product Information: **1 905 660-0444**

SECTION 2 -- COMPOSITION / INFORMATION ON INGREDIENTS

HAZARDOUS COMPONENT

EXPOSURE LIMITS

* -- (see note below)	CAS No.	% by wt.	OSHA PEL	ACGIH TLV	NIOSH REL
* Sodium hypochlorite	7681-52-9	5.50	Not established	Not established	Not established

* -- Asterisk ingredients are those considered hazardous according to the criteria of 29CFR 1910.1200.
Other ingredients are listed for informational purposes to assist emergency medical response personnel.

SECTION 3 -- HAZARDS IDENTIFICATION

EMERGENCY OVERVIEW	Corrosive: may cause severe skin and eye irritation or chemical burns to broken skin. Vapors extremely irritating to eyes and respiratory tract. Harmful and potentially fatal if swallowed.
POTENTIAL HEALTH EFFECTS	
INGESTION	Can cause corrosion of mucous membranes, severe esophageal burns and perforation of esophagus or stomach.
INHALATION	Inhalation of vapors can cause bronchial irritation, coughing, difficulty in breathing, nausea and pulmonary edema.
EYE CONTACT	Corrosive to the eyes; may cause severe and permanent damage.
SKIN CONTACT	Severe irritant; contact can produce blistering and eczema.

SECTION 4 -- FIRST AID MEASURES

INGESTION	If swallowed, DO NOT induce vomiting. Immediately drink a large quantity of water. Do not use acidic antidotes or sodium bicarbonate (baking soda). Call a physician or poison control center immediately.
INHALATION	If exposed to excessive vapor levels, remove to fresh air and seek medical attention if cough or other symptoms develop.
EYE CONTACT	Immediately flush eye with plenty of cool, running water. Remove contact lenses if applicable, and continue flushing for at least 15 minutes. Get medical attention immediately.
SKIN CONTACT	Flush affected skin area with copious amounts of water and wash with soap and water. If irritation develops or persists, get medical attention. Remove clothing and wash before reuse.
NOTE TO PHYSICIAN	Information pertaining to ingestion toxicology, therapy, symptomatology and treatment can be found in <u>Clinical Toxicology of Commercial Products</u> , authored by Gosselin, Smith and Hodge and published by Williams & Wilkins, Baltimore, Maryland. See listing for Hypochlorite in Therapeutics Index, Section III.

SECTION 5 -- FIRE FIGHTING MEASURES

FLASH POINT / METHOD	None / N.A.	FLAMMABLE LIMITS	Not flammable or combustible
EXTINGUISHING MEDIA	If involved in a fire, alcohol foam, carbon dioxide, dry chemical or water fog. Use extinguishing media that is appropriate for surrounding fire.		
SPECIAL FIRE FIGHTING PROCEDURES	Avoid fumes from spilled or exposed liquid. Firefighters should wear full protective clothing and OSHA/NIOSH self-contained breathing apparatus. Cool fire-exposed containers with water spray from a safe distance.		
FIRE AND EXPLOSION HAZARDS	Sodium Hypochlorite bleach is a strong oxidizing agent and decomposes when heated. Decomposition products may cause containers to explode. Vigorous reactions may occur with organic materials or oxidizable materials, causing fires.		

SECTION 6 -- ACCIDENTAL RELEASE MEASURES

RESPONSE TO SPILLS	Small spills: Dilute product by flooding area with large quantity of water and flush to sanitary sewer. Large spills: Contain run-off by diking with suitable material. Soak up liquid on inert absorbent and transfer to approved container. Prevent spill from entering sewers or waterways.
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SECTION 7 -- HANDLING AND STORAGE

HANDLING PRECAUTIONS	Wash after handling and before eating. Use personal protective equipment and wear suitable chemical-resistant clothing. Keep container tightly closed when not in use. Follow label directions closely.
STORAGE PRECAUTIONS	Store upright in a cool (below 85 F), dry, well-ventilated area. Keep away from heat or direct sunlight. Separate from incompatible materials, such as acids, ammonia, soap-based products or organic materials. Protect containers from physical damage. Keep away from children.

SECTION 8 -- EXPOSURE CONTROLS / PERSONAL PROTECTION

HYGIENIC PRACTICES	Avoid breathing vapors. Do not store near food stuffs, water or feed. Protect eyes, skin and clothing from contact with this product.
ENGINEERING CONTROLS	Use local ventilation to remove vapors at the source. Facilities using this product must be equipped with an eyewash station.

PERSONAL PROTECTIVE EQUIPMENT

X	RESPIRATOR	Not normally necessary; use NIOSH approved respirator for concentrated vapors
X	GOGGLES / FACE SHIELD	Required; goggles should be chemical splash type. Face shield also helpful.
X	APRON	Recommended to avoid skin contact and protect clothing from damage
X	GLOVES	Required; use impervious PVC or Neoprene with long gauntlet
X	BOOTS	Recommended to protect shoes and feet when using product for floor cleaning

SECTION 9 -- PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE	Clear pale yellow liquid	BOILING POINT	212 deg F
ODOR	Chlorine	FREEZING POINT	28 deg F
pH	12.0 - 12.8	VAPOR PRESSURE	17.5 mm Hg @ 20 C
SPECIFIC GRAVITY	1.080	VAPOR DENSITY	Not applicable
SOLUBILITY IN WATER	Complete	EVAPORATION RATE	Not applicable

SECTION 10 -- STABILITY AND REACTIVITY

CHEMICAL STABILITY		STABLE	X		UNSTABLE	
CONDITIONS TO AVOID	Heat or direct sunlight; temperatures above 85 F. Do not mix with solutions containing ammonia.					
INCOMPATIBILITY	Acids, ammonia, ether, urea, oxidizable materials, soaps, oils, greases, phenolic disinfectants and metals (including nickel, copper, tin, aluminum and iron).					
HAZARDOUS PRODUCTS OF DECOMPOSITION	Chlorine gas -- from contact with highly acidic materials. Chloramines -- from contact with ammonia. Polychlorinated phenols -- from contact with phenolic disinfectants.					
POLYMERIZATION		WILL NOT OCCUR	X		MAY OCCUR	
CONDITIONS TO AVOID	Not applicable					

SECTION 11 -- TOXICOLOGICAL INFORMATION

CARCINOGENICITY

	THIS PRODUCT CONTAINS A KNOWN OR SUSPECTED CARCINOGEN
X	THIS PRODUCT DOES NOT CONTAIN ANY KNOWN OR ANTICIPATED CARCINOGENS ACCORDING TO THE CRITERIA OF THE NTP ANNUAL REPORT ON CARCINOGENS AND OSHA 29 CFR 1910, Z

OTHER EFFECTS

ACUTE	Toxicity arises from corrosive activity; stems from oxidizing potency, a function of concentration
CHRONIC	Not determined

SECTION 12 -- ECOLOGICAL INFORMATION

BIODEGRADABILITY		CONSIDERED BIODEGRADABLE	X		NOT BIODEGRADABLE	
BOD / COD VALUE	Not established					
ECOTOXICITY	No data available					

SECTION 13 -- DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD	If in accordance with an NPDES permit or approved by local sewage treatment plant authority, small amounts may be flushed to a sanitary sewer with plenty of water. Large amounts of unused product must be disposed of as hazardous waste at an approved hazardous waste management facility.								
RCRA CLASSIFICATION	Hazardous, corrosive D002 (if pH is equal to or greater than 12.5)								
RECYCLE CONTAINER		YES	X		CODE	2 - HDPE		NO	

SECTION 14 -- TRANSPORT INFORMATION

DOT CLASSIFICATION		HAZARDOUS			NOT HAZARDOUS	X
DESCRIPTION	Per US DOT ruling, solutions of less than 6.8% free chlorine do not meet the definition of Class 8 Corrosive, as defined in 49CFR 173.136. Per IMDG Special Provision 223 for Hypochlorite Solutions, this product does not meet the definition of Class 8 Corrosive for shipments via ocean transport.					

SECTION 15 -- REGULATORY INFORMATION

REGULATORY STATUS

X	EPA REGISTERED (UNDER FIFRA)	29055-20004
	FDA REGULATED	
	KOSHER	
X	SARA TITLE III MATERIAL	Sodium Hypochlorite (Section 304)
X	USDA AUTHORIZED	Categories B1, D2
X	CANADA WHMIS	Controlled Product, Class E - Corrosive Material

SECTION 16 -- OTHER INFORMATION

NFPA CLASSIFICATION

2	BLUE	HEALTH HAZARD
0	RED	FLAMMABILITY
1	YELLOW	REACTIVITY
OX	WHITE	SPECIAL HAZARD

Information contained in this MSDS refers only to the specific material designated and does not relate to any process or use involving other materials. This information is based on data believed to be reliable, and the Product is intended to be used in a manner that is customary and reasonably foreseeable. Since actual use and handling are beyond our control, no warranty, express or implied, is made and no liability is assumed by KIK International in connection with the use of this information.