

This product contains Ammonium Chloride, a substance subject to the Pennsylvania Worker and Community Right-To-Know Act.

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**CHEMICAL IDENTITY**

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LABEL IDENTITY - MSA P/N 454228 Toxgard Test Solution for Chlorine  
CHEMICAL NAME - Sodium Hypochlorite  
ADDITIONAL IDENTITIES - Cl<sub>2</sub> Test Solution, Liquid Bleach  
FORMULA - NaOCl in H<sub>2</sub>O  
CAS REGISTRY NUMBERS - 7681-52-9

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**APPLICABLE CHEMICAL CONTENTS**

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	<u>%</u>	<u>TWA</u>
Sodium Hypochlorite (CAS 7681-52-9)	6	None
Water	Balance	None

NOTE: Each product bottle contains 5 milliliters of solution.

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**PHYSICAL AND CHEMICAL PROPERTIES**

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APPEARANCE AND ODOR -	Clear, Greenish yellow liquid. Chlorine odor.		
BOILING POINT -	Decomposes		
VAPOR PRESSURE -	N/A	SPECIFIC GRAVITY (H <sub>2</sub> O = 1) -	1.1
PERCENT VOLATILE BY VOLUME -	N/A	SOLUBILITY IN WATER -	Soluble
N/A - Not Applicable		VAPOR DENSITY (AIR = 1) -	N/A

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**PHYSICAL HAZARD INFORMATION**

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PHYSICAL HAZARD - Oxidizer, strong oxidizing agent  
CONDITIONS OR MATERIALS TO AVOID - Avoid Organics, heat, decrease in pH, acids, ammonia, amines, heavy metals.  
FLASH POINT - Not Flammable LEL - N/A UEL - N/A  
UNUSUAL FIRE & EXPLOSION HAZARDS - Decomposition of NaOCl in fire conditions may cause container to rupture.  
EXTINGUISHING MEDIA - As Appropriate for Surrounding Fire.  
SPECIAL FIRE FIGHTING PROCEDURES - Wear customary fire fighting equipment including Self-Contained Breathing Apparatus with Full Facepiece.

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**HEALTH HAZARDS**


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HEALTH HAZARDS - Alkaline Corrosive, Irritant, Toxic. Sodium hypochlorite is a severe irritant of eyes, Mucous membranes, and skin, and is a skin sensitizer.

No toxicity data for 6% NaOCl was found. Vendor data for a higher concentration (Pentahydrate; 45% concentration) is as follows:

Acute Oral Toxicity (Rat): LD50 8910 mg/kg  
 Acute dermal Toxicity (Rabbit): LD50 10,000 mg/kg  
 Primary Skin Irritation: Severely irritating  
 Primary Eye Irritation: Severely irritating

SIGNS AND SYMPTOMS OF EXPOSURE - Ingestion - Pain and inflammation of mouth, pharynx, esophagus, and stomach. Erosion of mucous membranes, chiefly of stomach. Vomiting, hemorrhage, Circulatory collapse with cold and clammy skin, cyanosis, and shallow respirations. Confusion, delirium, coma. Edema of pharynx, glottis and larynx, with stridor and obstruction. Perforation of esophagus or stomach.

Inhalation- Respiratory irritation, distress  
 Skin - Irritation, reddening  
 Eye - Severs Irritation

PRIMARY ROUTES OF ENTRY - Ingestion, inhalation, skin, eyes

TARGET ORGANS - Mouth, pharynx, esophagus, stomach, mucous membranes, lungs, skin, eyes.

MEDICAL CONDITIONS GENERALLY RECOGNIZED AS BEING AGGRAVATED BY EXPOSURE - No Information

EXPOSURE LIMITS (OSHA PER, ACGIH TLV, OTHERS USED OR RECOMMENDED)- None established. See Health Hazards on Page 1.

CARCINOGENICITY DATA - Not listed in RTECS.

EMERGENCY & FIRST AID PROCEDURES -

NOTE: Overexposure to product seems unlikely in view of limited quantity and conditions or use in instrument calibration. Emergency and first aid procedures follow should overexposure somehow occur.

Eye Contact - Wash eyes immediately for 15-20 minutes with large quantities of water, raising upper and lower eyelids to flush under lid areas. GET MEDICAL ATTENTION IMMEDIATELY.

Skin Contact- Remove contaminated clothing. Wash affected area with soap and water until no evidence of product remains. Get medical attention if irritation persists.

Ingestion Give two glasses of water to dilute product. GET MEDICAL ATTENTION IMMEDIATELY.

Inhalation- Remove from exposure. If breathing has stopped give artificial respiration. Administer oxygen if available. GET MEDICAL ATTENTION IMMEDIATELY.

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**SAFE HANDLING AND USE**


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HYGIENIC PRACTICES -	Wash hands after using product.
PROTECTIVE MEASURES DURING REPAIR AND MAINTENANCE OF CONTAMINATED EQUIPMENT -	If activity makes exposure possible, wear personal protective equipment. See Page 3.
STORAGE -	Store in a cool dry, darkened area away from combustible.
WASTE DISPOSAL -	Dispose of surplus product in accordance with current local, state, and federal laws and regulations.
PROCEDURES FOR SPILL OR LEAK CLEANUP-	A product bottle contains 5 milliliters of solution. If this small amount is spilled, cover with slaked lime, crushed limestone, or sodium bicarbonate and flush to drain with excess water.

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**CONTROL MEASURES**


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PERSONAL PROTECTIVE EQUIPMENT -	When contact with product is possible wear rubber gloves, splash proof goggles, face shield, impervious body covering, and NIOSH approved respirator as needed to avoid contact.
ENGINEERING CONTROLS -	Not applicable with intended use of product.
WORK PRACTICES -	Follow detailed instruction supplied with apparatus.
DATE OF PREPARATION -	Rev. 3, June 1999

**WARNING:** This is a hazardous chemical product. By following the directions and warnings provided with this product, the hazards associated with the use of this product can be greatly reduced but never entirely eliminated. Mine Safety Appliances Company makes no warranties, expressed or implied, with respect to this product and EXPRESSLY DISCLAIMS THE WARRANTY OF MERCHANTABILITY AND ANY WARRANTY OF FITNESS FOR A PARTICULAR PURPOSE. Users assume all risks in handling, using or storing this product.