



SAFETY DATA SHEET

1. Identification

Product Identifier	Lo=Temp Chlorine Sanitizer	
Other means of identification	CU-5430	
Product code		
Recommended use	For automatic dish machines.	
Recommended restrictions	Professional use only.	
Manufacturer information		
Company name	Chemical Universe, Inc.	
Address	1133 Saline St North Kansas City MO 64116	
Telephone	(816) 471-3602	
Fax	(816) 474-3302	
Emergency phone number	PERS	(800) 633-8253
	24 hour Emergency	(800) 633-8253

2. Hazard(s) Identification

Physical hazards	Not classified.	
Health hazards	Serious eye damage	Category 1
	Skin corrosion	Category 1
Environmental hazards	Not classified.	
OSHA defined hazards	None	
Label elements		



Signal word	DANGER
Hazard statement	Causes severe skin burns and eye damage.
Precautionary statement	
Prevention	Wash hands and exposed skin thoroughly after handling. Do not breathe dust or mists. Wear protective gloves/protective clothing/eye protection/face protection.
Response	IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. Wash contaminated clothing before reuse. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Immediately call a POISON CENTER/doctor/medical professional. Specific treatment (see section 4 on the Safety Data Sheet). IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
Storage	Store locked up.
Disposal	Dispose of contents/containers in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None.
Supplemental information	None.



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3. Composition/information on ingredients

Mixture Component(s)		
Chemical name	CAS number	%
Sodium hypochlorite	7681-52-9	8-12
Sodium hydroxide	1310-73-2	2-4
Other components below reportable levels		85-90

4. First-aid measures

Inhalation	Move to fresh air. Call a physician if symptoms develop or persist.
Skin contact	Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take along these instructions.
Eye contact	Rinse with water for at least 15 minutes. Remove contact lenses if present and easy to do so. Immediately call a physician or transport to hospital.
Ingestion	Rinse mouth. Get medical attention immediately. Do not induce vomiting.
Most important symptoms/effects, acute and delayed	Can cause serious eye damage. Can cause burning sensation in affected areas. Shortness of breath, respiratory tract irritation or damage. Sodium hydroxide is extremely destructive to tissues of the mucous membranes and upper respiratory tract, eyes, and skin.
Indication of immediate medical attention and special treatment needed	Provide general support measures and treat symptomatically. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Wash contaminated clothing before reuse. Use with extreme caution.

5. Fire-fighting measures

Suitable extinguishing media	Water fog. Foam. Dry chemical powder. Carbon dioxide (CO ₂).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protecting clothing must be worn in case of fire.
Fire-fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials.
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Avoid inhalation of vapors or mists. Do not touch damaged containers or spilled materials unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	This product is miscible in water. Large spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry



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sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water.

Small spills: Wipe up with absorbent material (e.g. cloth, absorbent wipes). Clean surface thoroughly with water to remove residual contamination.

Never return spills to original container for re-use. For waste disposal, see section 13 of the SDS.

Environmental precautions

Avoid discharge into surface waterways and areas not consistent with package labeling.

7. Handling and storage

Precautions for safe handling

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Avoid prolonged exposure. Provide adequate ventilation. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.

Conditions for safe storage, including any incompatibilities

Store in original tightly closed container. Store away from incompatible materials (see section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

US OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)

Components	Type	Value
Sodium hydroxide	PEL	2 mg/m ³

US ACGIH Threshold Limit Values

Components	Type	Value
Sodium hydroxide	STEL	2 mg/m ³

Biological limit values

No information.

Appropriate engineering controls

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels to an acceptable level. It is recommended that users of this product perform a risk assessment to determine the appropriate personal protective equipment.

Individual protection measures, such as personal protective equipment

Eye/face protection

Avoid contact with eyes. Wear safety glasses with side shields (or goggles).

Skin protection

Hand protection

Wear appropriate chemical resistant gloves. Neoprene, nitrile and latex barrier materials are recommended

Other

Wear appropriate chemical resistant clothing. Use of an impervious apron is recommended.

Respiratory protection

In case of insufficient ventilation, wear suitable respiratory equipment.

Thermal hazards

Wear appropriate thermal protective clothing, when necessary.

General hygiene considerations

When using do not smoke or use chewing tobacco. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Contaminated work clothing should not be allowed out of the workplace.

9. Physical and chemical properties

Appearance



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Physical State	Liquid
Color	Clear to light amber.
Odor	Chlorine.
Odor threshold	Not available.
pH	13-14
Melting/freezing point	3°F(-16.11°C)
Initial boiling point and boiling range	<230°F(<110°C)
Flash point	Not available.
Evaporation rate	Not available.
Flammability	Not available.
Flammability Limits	
Upper	Not available.
Lower	Not available.
Vapor pressure	Not available
Vapor density	Not available.
Specific gravity (water=1)	1.23
Solubility in water	Soluble.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	Not available.

10. Stability and reactivity

Reactivity	Reacts violently with strong acids. This product may react with oxidizing agents.
Chemical stability	Material is stable under normal conditions. Store in a cool dark place.
Possibility of hazardous reactions	Reacts violently with strong acids. This product may react with oxidizing agents. Hazardous polymerization does not occur.
Conditions to avoid	Avoid storage in elevated temperatures. Keep away from heat, sparks, and open flame. Do not mix with other chemicals.
Incompatible materials	Acids, oxidizing agents, bases, alkalis (organic)
Hazardous decomposition products	Chlorine, hydrogen chloride. In case of fire see section 5.

11. Toxicological information

Information on likely routes of exposure	
Ingestion	Do not ingest. Causes digestive tract burns.
Inhalation	Prolonged inhalation may be harmful. May cause irritation to the respiratory system.
Skin contact	Can cause severe skin burns.
Eye contact	Can cause serious eye damage.
Symptoms related to the physical, chemical and toxicological characteristics	Burning sensation, coughing, wheezing, and shortness of breath. Sodium hydroxide is extremely destructive to mucous membranes, eyes, and skin.
Acute toxicity	Not classified.



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Product Lo Temp Chlorine (CAS mixture)		
	Route and Species	LD50 /LC50
Acute	Oral, rat	>5,000 mg/kg (estimated)
	Dermal, rat	> 9m450 mg.kg (estimated)

*Estimates for product may be based on additional component data not shown

Skin corrosion/irritation	Can cause severe skin burns.
Serious eye damage/irritation	Can cause serious eye damage.
Respiratory sensitization	Not considered a respiratory sensitizer.
Skin sensitization	Not considered a skin sensitizer.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	Not considered a carcinogen.
OSHA Specifically Regulated Substances (29 CFR 1910.1001-1050)	
Not Listed.	
Reproductive toxicity	No data available.
Specific target organ toxicity – single exposure	No data available.
Specific target organ toxicity – repeated exposure	No data available.
Aspiration hazard	No data available.

12. Ecological information

Ecotoxicity		
Product Lo Temp Chlorine (CAS mixture)		
Aquatic Receptor	Species	Test Thresholds
Fish	(Unspecified)	LC ₅₀ = 0.55 mg/L (estimated)
Crustacea	Daphnia Magna	EC ₅₀ = 0.93 mg/L (estimated)

*Estimates for product may be based on additional component data not shown

Persistence and degradability	No data available. This class of product is expected to exhibit low persistence in the general environment
Bioaccumulative potential	Accumulation in aquatic organisms is not expected.
Partition coefficient n-octanol/water (log K_{ow})	Not available. The listed chemicals will readily partition to aqueous media
Mobility in soil	No data available. High mobility in saturated soils is expected according to literature data.
Other adverse effects	Very toxic to aquatic life with long lasting effects.

13. Disposal considerations

Disposal instructions	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.
Local disposal regulations	Dispose in accordance with all applicable regulations.
Hazardous waste code	The waste code should be assigned in discussion between the user, the producer and the waste disposal company.
Waste from residues/unused product	Dispose of in accordance with local regulations. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe manner. (see: Disposal instructions).



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Contaminated packaging Empty containers should be taken to an approved waste handling site for recycling or disposal. Since emptied containers may contain product residue, follow label warnings even after container is emptied.

14. Transport information

USDOT

UN number	UN1760
UN proper shipping name	Corrosive Liquids, n.o.s. (Contains: Sodium Hypochlorite)
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packaging group	III
Marine pollutant	No

Special precautions for user Read safety instructions, SDS, and emergency procedures before handling.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code Not intended to be transported in bulk.

DOT



15. Regulatory information

US federal regulations

SARA 302 Extremely hazardous substance Not listed.

SARA 304 Emergency release notification Not listed

SARA 311/312 Hazard Categories

Immediate Hazard - Yes

Delayed Hazard – No

Fire Hazard – No

Pressure Hazard – No

Reactivity Hazard – No

SARA 313 (TRI reporting)

Not listed.

