SAFETY DATA SHEET

1. Identification

Product Identifier	**De-Stain**
Other means of identification	CU-7220, 7220-CLL
Product code	
Recommended use	Chlorine de-stain solution for laundry.
Recommended restrictions	Professional use only. Use as directed
Manufacturer information	
Company name	**Chemical Universe**
Address	1841 Vernon Street North Kansas City, MO 64116
Telephone	(816) 471-3602
FAX	(816) 474-3302
Emergency phone number	PERS 24-hour Emergency (800) 633-8253

2. Hazard(s) Identification

Physical hazards	Not classified. (< 15% oxidizing chemical)	
Health hazards	Serious eye damage Skin corrosion	Category 1 Category 1B
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. Store in original corrosion-resistant containers or containers with corrosion-resistant liners.
Disposal	Dispose of contents/containers in accordance with local/regional/national/international regulations.
Hazard(s) not otherwise classified (HNOC)	None.
Supplemental information	None.

3. Composition/information on ingredients

Mixture Component(s)		
Chemical name	**CAS number**	**%**
Sodium hypochlorite	7681-52-9	10-15
Sodium hydroxide	1310-73-2	2.5-5
Other components below reportable levels		80 - 88

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 None reported

Specific hazards arising from the chemical During fire, gases such as chlorine, hydrogen chloride and phosgene that are immediately 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. The product does possess oxidizer properties and can enhance fire intensity and propagation in confined areas Mixing with acids can release chlorine gas.

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 fully 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 sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Do not use acidic neutralizers as chlorine gas can be released

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 other 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. **DO NOT USE WITH STRONG ACID PRODUCTS. REACTIONS CAN PRODUCE HAZARDOUS CHLORINE GAS.**

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 The use of gloves impervious to the specific material handled is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. It should be noted that the time to breakthrough for any glove material may be different for different glove manufacturers. In the case of mixtures, consisting of several substances, the protection time of the gloves cannot be accurately estimated. Suggested protective materials: Nitrile and PVC rubber.

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

Respiratory protection In case of insufficient ventilation, wear suitable NIOSH-approved 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	
Physical State	Liquid
Color	Clear to light amber
Odor	Chlorine/bleach
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	12 mm Hg @ 25°C (12.5% NaOCl)
Vapor density	Not available.
Specific gravity (water=1)	1.3
Solubility in water	Soluble.
Partition coefficient (n-octanol/water)	Not applicable.
Auto-ignition temperature	Not available.
Decomposition temperature	Not available.
Viscosity	@ 1.24 cPs.

10. Stability and reactivity

Reactivity	Reacts violently with strong acids. This product may react with oxidizing and strong reducing agents.
Chemical stability	Material is stable under normal conditions but will naturally degrade over time. 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 during use. **DO NOT USE WITH STRONG ACID PRODUCTS. REACTIONS CAN PRODUCE HAZARDOUS CHLORINE GAS.**
Incompatible materials	Acids, oxidizing agents, strong 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. Pain, swelling excessive tearing and redness of the eye.
Acute toxicity	Not classified.

Product De-Stain (CAS mixture)		
Exposure Classification	**Route and Species**	**LD_{50}**
Acute	*Oral*, rat	>5,000 mg/kg (estimated)
Acute	*Dermal,* rabbit	>9,300 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 De-Stain (CAS mixture)		
Aquatic Receptor	**Species**	**Test Threshold**
Fish	(Lepomis macrochirus	LC_{50} = 0.42 mg/L estimated
Crustacea	Daphnia magna	EC_{50} = 0.7 mg/L estimated
*Estimates for product may be based on additional component data not shown		

Persistence and degradability	No data available. The listed classes of chemicals are readily degraded in an open aerobic environment
Bioaccumulative potential	Accumulation in aquatic organisms is not expected.
Partition coefficient n-octanol/water (log K_{ow})	Not applicable.
Mobility in soil	No data available. Due to inherent reactivity of the hypochlorite component, mobility is expected to be low in partially-saturated organic soil matrices. Ionic fractions dissociated in water will exhibit moderate mobility in low clay soils.
Other adverse effects	Very toxic to aquatic life in high concentration with long lasting effects. No other adverse environmental effects known (*i.e. ozone depleting substance, tropospheric ozone precursor, greenhouse gas emission, endocrine disruptor or other deleterious environmental effect*)

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 proper code should be assigned in discussion between the user, the producer and the waste disposal company. As packaged, this product may meet criteria defining RCRA corrosive (D002) hazardous wastes when disposed. (40 CFR Part 261, Subpart C)

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).
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	UN1791
UN proper shipping name	Hypochlorite Solutions
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 Label/Placard

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

TSCA – All chemical components used to manufacture this product comply with the Toxic Substances Control Act (TSCA) registry requirements and are either listed within, or exempted from, the current TSCA 8(b) inventory.

California Proposition 65 **California Safe Drinking Water and Toxic Enforcement Act of 1986**

This product is not known to contain any chemicals currently listed as carcinogens or reproductive toxins under California Proposition 65 at levels which would be subject to threshold determination and Safe Harbor notification (1/2019)

16. Other information, including date of preparation or last revision

Issue date 6/10/2016

Revision date 10/2/2019, 6/1/2020

Version # 3

HMIS® ratings Health: 3
Flammability: 1
Physical hazard: 1

NFPA ratings Health: 3
Flammability: 1
Instability: 1

Disclaimer The information provided in this Safety Data Sheet is correct to the best of our knowledge, and have been obtained from resources believed to be reliable. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal, and release and is not to be considered a warranty or quality specification. The information related only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified by the text.

Revision information 6/10/2015 Transportation information.
10-2-19 Fire response update; Physical data update; General format update, Prop 65 statement; Update toxicology and environmental fate information; PPE notations; Physical data update; miscellaneous text corrections; HMIS and NFPA pictograms inserted
6/1/2020 Logo update; update environmental fate and glove selection standard; Add TSVA language; Incompatibility warnings Sections 5, 7 and 10.