Material Safety Data Sheet

Zep, Inc.
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1-877-I-BUY-ZEP (428-9937)
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Section 1. Chemical Product and Company Identification

Product name FS Z-CHLOR

Product use Food Industry - Chlorinated Cleaner.

Product code 2443

Date of issue 03/29/11 **Supersedes** 07/16/09

Emergency Telephone Numbers

For MSDS Information:
Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency
(877) 541-2016 Toll Free - All Calls Recorded

For Transportation Emergency
CHEMTREC: (800) 424-9300 - All Calls Recorded
In the District of Columbia (202) 483-7616

Prepared By
Compliance Services
1420 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

*Hazard Determination System (HDS): Health, Flammability, Reactivity

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DANGER ! POISON

CAUSES EYE, SKIN & MUCOUS MEMBRANE BURNS.
MAY BE FATAL IF SWALLOWED.

NOTE: MSDS data pertains to the product as delivered in the original shipping container(s). Risk of adverse effects are lessened by following all prescribed safety precautions, including the use of proper personal protective equipment.

Acute Effects **Routes of Entry** Dermal contact. Eye contact. Inhalation.

Eyes Causes eye burns. Eye exposure may cause severe and permanent eye injury (blindness).

Skin Causes skin burns. The amount of tissue damage depends on length of contact. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

Inhalation Avoid inhalation of vapor, spray or mist. Liquid, spray or mist may produce tissue damage, particularly to mucous membranes of eyes, mouth and respiratory tract.

Ingestion May be fatal if swallowed. May cause burns to mouth, throat, and stomach.

Chronic effects Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation.

Carcinogenicity
Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.

Product/ingredient name	ACGIH	IARC	EPA	NIOSH	NTP	OSHA
None.						

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
POTASSIUM HYDROXIDE; caustic potash; lye	1310-58-3	10 - 20
Acrylic Acid/Dispersant Polymer	66019-18-9; Proprietary	1 - 10
SODIUM HYPOCHLORITE; hypochlorous acid, sodium salt; bleach	7681-52-9	1 - 5

Section 4. First Aid Measures

Eye Contact Immediately flush eyes with plenty of water, occasionally lifting the upper and lower eyelids. Check for and remove any contact lenses. Continue to rinse for at least 10 minutes. Get medical attention immediately.

Skin Contact Flush affected skin with plenty of water. Remove contaminated clothing and shoes. Wash contaminated clothing thoroughly with water before removing or wear gloves. Continue to rinse for at least 10 minutes. Wash clothing before reuse. Get medical attention.

Inhalation If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If affected person is conscious, give plenty of water to drink. Get medical attention immediately.

Section 5. Fire Fighting Measures

National Fire Protection Association (U.S.A.)

Flash Point Not applicable

Flammable Limits Not applicable

Flammability Non-combustible.

Fire hazard May emit toxic fumes under fire conditions.

Fire-Fighting Procedures Use an extinguishing agent suitable for the surrounding fire. Fire-fighters should wear appropriate protective equipment. Do not release runoff from fire to drains or watercourses.

Section 6. Accidental Release Measures

Spill Clean up Put on appropriate personal protective equipment (see section 8). Stop leak if without risk. Move containers from spill area. Dilute with water and mop up if water-soluble or absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

Handling Put on appropriate personal protective equipment (see section 8). Avoid contact with eyes, skin and clothing. DO NOT breathe vapors or spray mist. Use only with adequate ventilation. Do not ingest. Do not reuse container. Do not use with other products. Observe label precautions. Incompatible with aluminum and galvanized metal. Wash thoroughly after handling.

Storage Store away from incompatible materials. Keep container tightly closed and sealed until ready for use. Keep container in a cool, well-ventilated area. Store between the following temperatures: 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls/Personal Protection

Product name	Exposure limits
POTASSIUM HYDROXIDE; caustic potash; lye	**ACGIH /OSHA (United States).** CEIL: 2 mg/m³
SODIUM HYPOCHLORITE; hypochlorous acid, sodium salt; bleach	**ACGIH TLV (United States).** TWA: 0.5 ppm 8 hour(s). Form: As Cl_2 STEL: 1 ppm 15 minute(s). Form: As Cl_2 **OSHA PEL 1989 (United States).** TWA: 1 ppm 8 hour(s). Form: As Cl_2 STEL: 3 ppm 15 minute(s). Form: As Cl_2

Personal Protective Equipment (PPE)

Eyes Chemical splash goggles or face shield.

Body Wear appropriate protective clothing to prevent skin contact.
Recommended: Rubber gloves. Neoprene gloves. Synthetic apron.

Respiratory Use with adequate ventilation. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits.

Section 9. Physical and Chemical Properties

Physical State Liquid.

pH 13.5 - 14.0

Boiling Point 104.44°C (220°F)

Specific Gravity 1.28

Solubility Easily soluble in the following materials: cold water and hot water.

Color Clear. Light Yellow.

Odor Mild.

Vapor Pressure Not determined.

Vapor Density Not determined.

Evaporation Rate 1 (Water = 1)

VOC (Consumer) 0 g/l

Section 10. Stability and Reactivity

Stability and Reactivity The product is stable.

Incompatibility Reactive or incompatible with the following materials: oxidizing materials.
Slightly reactive or incompatible with the following materials: acids and Ammonia.

Hazardous Polymerization Will not occur.

Hazardous Decomposition Products Hydrogen chloride (HCl), Chlorine and Phosgene gas.

Section 11. Toxicological Information

Acute Toxicity

Product/ingredient name	Result	Species	Dose	Exposure
Potassium Hydroxide	LD50 Oral	Rat	365 mg/kg	-
Sodium Hypochlorite	LC50 Inhalation Vapor	Rat	>10.5 mg/L	0.25 hours
	LD50 Dermal	Rabbit	>10000 mg/kg	-
	LD50 Oral	Rat	8910 mg/kg	-

Section 12. Ecological Information

Environmental Effects Not available.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Potassium Hydroxide	-	Acute LC50 179 mg/L	Fish	96 hours
Sodium Hypochlorite	-	Acute LC50 5.9 mg/L	Fish - Minnows	96 hours

Section 13. Disposal Considerations

Waste Information

Waste must be disposed of in accordance with federal, state and local environmental control regulations. Consult your local or regional authorities for additional information.

Waste Stream Code: D002
Classification: - [Hazardous waste]
Origin: - [RCRA waste.]

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	3266	Corrosive liquid, Basic, Inorganic, nos (Potassium Hydroxide)	8	II	
IMDG Class	Not determined.			-	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, r efer to the Bill of Lading with your shipment.

PG* : Packing group

Section 15. Regulatory Information

U.S. Federal Regulations

SARA 313 toxic chemical notification and release reporting:

No products were found.

Clean Water Act (CWA) 307: No products were found.

Clean Water Act (CWA) 311: Potassium Hydroxide; Sodium Hypochlorite

Clean Air Act (CAA) 112 regulated toxic substances: No products were found.

All Components of this product are listed or exempt from listing on TSCA Inventory.

United States inventory (TSCA 8b): Not determined.

State Regulations

California Prop 65 No products were found.

Section 16. Other Information

To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein.
Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.

**NOTE: Hazard Determination System (HDS) ratings are based on a 0-4 rating scale, with 0 representing minimal hazards or risks, and 4 representing significant hazards or risks Although these ratings are not required on MSDSs under 29 CFR 1910.1200, the preparer may choose to provide them. HDS ratings ar e to be used with a fully implemented program to relay the meanings of this scale.*