

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 ZEP FS FORMULA 4665
Product use Disinfectant. Sanitizer.
Product code 2890, CO7700, CO8300, U24185
Date of issue 10/02/14 **Supersedes** 08/11/14

This product is a registered pesticide. EPA Registration Number: 1270-20001

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
1259 Seaboard Industrial Blvd.
Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview

DANGER

CAUSES EYE BURNS. CAUSES RESPIRATORY TRACT AND SKIN IRRITATION. HARMFUL IF SWALLOWED.

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



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

Direct contact with the eyes can cause irreversible damage, including blindness.

Skin

Causes skin irritation. Skin inflammation is characterized by itching, scaling, or reddening.

Inhalation

Inhalation of the spray or mist may produce severe irritation of respiratory tract, characterized by coughing, choking or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.

Ingestion

Harmful 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. Prolonged or repeated contact may dry skin and cause irritation.

Carcinogenicity Classification

No known significant effects or critical hazards.

Additional information: See toxicological information (Section 11)

Section 3. Composition/Information on Ingredients

Name	CAS number	%
Sodium hypochlorite solution Cl active	7681-52-9	12.5

Section 4. First Aid Measures

Eye Contact

Check for and remove any contact lenses. Immediately flush eyes with plenty of water for at least 15 minutes, occasionally lifting the upper and lower eyelids. Get medical attention immediately.

Skin Contact

In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Wash clothing before reuse. Get medical attention if irritation develops.

Inhalation

Move exposed person to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.

Ingestion

Wash out mouth with water. 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-flammable.
- Fire hazard** In a fire or if heated, a pressure increase will occur and the container may burst.
- Fire-Fighting Procedures** Use an extinguishing agent suitable for the surrounding fire. 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. Alternatively, or if water-insoluble, 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 ingest. Avoid breathing vapor or mist. Use with adequate ventilation. Do not use with other products. Apply this product only as specified on the label. Wash thoroughly after handling. Empty containers retain product residue and can be hazardous. Do not reuse container.
- Storage** Store in accordance with local regulations. Store in original container protected from direct sunlight in a dry, cool and well-ventilated area, away from incompatible materials (see Section 10) and food and drink. Keep container tightly closed and sealed until ready for use. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Do not store in unlabeled containers. Keep out of the reach of children. Protect from freezing. Store below 120°F (49°C).

Section 8. Exposure Controls/Personal Protection

Ingredient	Exposure limits
Sodium hypochlorite solution Cl active	AIHA WEEL (United States, 10/2011). STEL: 2 mg/m ³ 15 minutes.

Personal Protective Equipment (PPE)

- Eyes** Splash goggles.
- Body** Wear appropriate protective clothing to prevent skin contact. Rubber gloves. Synthetic apron. Chemical resistant boots.
- Respiratory** Avoid breathing vapors, spray or mists. Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Wear appropriate respirator when ventilation is inadequate.



Section 9. Physical and Chemical Properties

- Physical State** Liquid.
- pH** 13 to 14
- Boiling Point** Decomposes on heating.
- Specific Gravity** 1.2
- Solubility** Soluble in the following materials: cold water and hot water.
- Color** Yellow. Green. [Light]
- Odor** Bleach-like Odor [Strong]
- Vapor Pressure** Not determined.
- Vapor Density** Not determined.
- Evaporation Rate** 1 (Water = 1)
- VOC (Consumer)** 0 % (w/w) 0 lbs/gal (0 g/l)

Section 10. Stability and Reactivity

- Stability and Reactivity** The product is stable.
- Incompatibility** Reactive or incompatible with the following materials: reducing materials, organic materials, metals and acids.
- Hazardous Polymerization** Under normal conditions of storage and use, hazardous polymerization will not occur.
- Hazardous Decomposition Products** Chlorine. May emit toxic fumes under fire conditions.

Section 11. Toxicological Information

Product/ingredient name	Result	Species	Dose	Exposure
Sodium hypochlorite solution Cl active	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 Toxic to aquatic organisms. Keep out of waterways.

Aquatic ecotoxicity

Product/ingredient name	Result	Species	Exposure
Sodium hypochlorite solution Cl active	Acute EC50 46000 µg/l Marine water	Algae - Gracilaria tenuistipitata	4 days
	Acute LC50 56400 µg/l Marine water	Crustaceans - Palaemonetes pugio	48 hours
	Acute LC50 32 µg/l Fresh water	Daphnia - Daphnia magna	48 hours
	Acute LC50 32 µg/l Marine water	Fish - Oncorhynchus kisutch - Juvenile (Fledgling, Hatchling, Weanling)	96 hours
	Chronic NOEC 10000 µg/l Marine water	Algae - Gracilaria tenuistipitata	4 days
	Chronic NOEC 0.1 ppm Fresh water	Fish - Cyprinus carpio - Young	30 days
Acute LC50 125 ppm Fresh water	Fish - Gambusia affinis - Adult	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: Corrosive Hazardous waste
Origin: RCRA waste.

Section 14. Transport Information

Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	UN1791	Hypochlorite solution	8	III	
IMDG Class	UN1791	Hypochlorite solution	8	III	

NOTE: DOT classification applies to most package sizes. For specific container size classifications or for size exceptions, refer 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) 311: Sodium hypochlorite solution Cl active (RQ: 100 lbs)

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.

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 are to be used with a fully implemented program to relay the meanings of this scale.