

Zep, Inc. 1310 Seaboard Industrial Blvd. Atlanta, GA 30318 1-877-I-BUY-ZEP (428-9937) www.zep.com

Safety Data Sheet

Section 1. Chemical Product and Company Identification Product name **CONCENTRATED SMOKESCREEN DEODORIZER (GreenLink)** Product use Concentrated Liquid Odor Counteractant 2159 Product code Date of issue 08/08/12 Supersedes 11/02/09

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

produce chronic eye irritation and severe skin irritation.

Compliance Services 1420 Seaboard Industrial Blvd. Atlanta, GA 30318

Section 2. Hazards Identification

Emergency overview WARNING!

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



FLAMMABLE LIQUID AND VAPOR. CAUSES EYE IRRITATION. MAY BE HARMFUL 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 irritation. Inflammation of the eye is characterized by redness, watering and itching.
Skin	May cause skin irritation. Skin inflammation is characterized by itching, scaling, or reddening.
Inhalation	Avoid breathing vapors, spray or mists. Over-exposure by inhalation may cause respiratory irritation. Can cause dizziness, light-headedness, headache, nausea and blurred vision.
Ingestion	May be harmful if swallowed. Aspiration hazard if swallowed. Can enter lungs and cause damage.
Chronic effec	Contains material which may cause damage to the following organs: kidneys, lungs, liver, mucous membranes, upper respiratory tract, skin, central nervous system (CNS), eye, lens or cornea. 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

Carcinogenicity

No known significant effects or critical hazards.

Product/ingredient name

Not available.

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients		
Name of Hazardous Ingredients	CAS number	<u>% by Weight</u>
Ethanol; Ethyl Alcohol	64-17-5	15 - 25
Alcohols, C12-16, ethoxylated	68551-12-2	15 - 25
Dipropylene glycol methyl ether; (2-methoxymethylethoxy)propanol	34590-94-8	5 - 15
Hexylene Glycol; 2-methylpentane-2,4-diol	107-41-5	5 - 15
Fragrance mixture	proprietary	5 - 15
propyl acetate	109-60-4	1 - 5

Product code 2159

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Section 4. First Aid Measures

Eye ContactCheck 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 ContactIn 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.InhalationMove exposed person to fresh air. If irritation persists, get medical attention.

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

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

Section 5. Fire Fighting Measures

eeellen en ne ng	ining mousaries	
Flash Point	Closed cup: 27.8°C (82°F) [Tagliabue.]	230
Flammable Limits	Lower: 2% Upper: 12%	~
Flammability	Flammable in the presence of the following or conditions: open flames, sparks and stati	
Fire hazard		ressure increase will occur and the container may burst, with the risk sumulate in low or confined areas or travel a considerable distance to a
Fire-Fighting Procedures	Use dry chemical, CO ₂ , water spray (fog) or	foam.

Section 6. Accidental Release Measures

Spill Clean up Eliminate all ignition sources. 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. Use spark-proof tools and explosion-proof equipment. Dispose of via a licensed waste disposal contractor.

Section 7. Handling and Storage

- **Handling** Put on appropriate personal protective equipment (see section 8). Store and use away from heat, sparks, open flame or any other ignition source. Avoid contact with eyes, skin and clothing. Do not ingest. Avoid breathing vapor or mist. Use only with adequate ventilation. 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. Eliminate all ignition sources. 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.

Product name	Exposure limits
Ethanol; Ethyl Alcohol	ACGIH TLV (United States, 2/2010). STEL: 1000 ppm 15 minute(s). OSHA PEL 1989 (United States, 3/1989). TWA: 1000 ppm 8 hour(s). TWA: 1900 mg/m ³ 8 hour(s). NIOSH REL (United States, 6/2009). TWA: 1000 ppm 10 hour(s). TWA: 1900 mg/m ³ 10 hour(s). OSHA PEL (United States, 6/2010). TWA: 1000 ppm 8 hour(s). TWA: 1900 mg/m ³ 8 hour(s).
Dipropylene glycol methyl ether; (2- methoxymethylethoxy)propanol	ACGIH TLV (United States, 2/2010). Absorbed through skin. TWA: 100 ppm 8 hour(s). TWA: 606 mg/m ³ 8 hour(s). STEL: 150 ppm 15 minute(s). STEL: 909 mg/m ³ 15 minute(s). OSHA PEL 1989 (United States, 3/1989). Absorbed through skin. TWA: 100 ppm 8 hour(s). TWA: 600 mg/m ³ 8 hour(s). STEL: 900 mg/m ³ 15 minute(s). STEL: 900 mg/m ³ 15 minute(s). NIOSH REL (United States, 6/2009). Absorbed through skin. TWA: 600 mg/m ³ 10 hour(s). STEL: 150 ppm 15 minute(s). STEL: 150 ppm 15 minute(s). STEL: 150 ppm 15 minute(s). STEL: 150 ppm 15 minute(s). STEL: 900 mg/m ³ 15 minute(s).

			Safety Data Shee	ət	Product N	Name CONCENTRATE DEODORIZER (
			TWA: 100 ppm 8 TWA: 600 mg/m				
Hexylene Glycol; 2-methy	ylpentane-2,4-diol		ACGIH TLV (Un C: 25 ppm	ited States, 2/201	0).		
			C: 121 mg/m ³ OSHA PEL 1989	(United States, 3	/1989).		
			CEIL: 25 ppm CEIL: 125 mg/m	3			
			NIOSH REL (Un CEIL: 25 ppm	ited States, 6/200	9).		
propyl acetate			CEIL: 125 mg/m ⁻ ACGIH TLV (Un		0).		
рторуг асстане			TWA: 200 ppm 8 TWA: 835 mg/m STEL: 250 ppm 1 STEL: 1040 mg/r OSHA PEL 1989 TWA: 200 ppm 8 TWA: 200 ppm 8 TWA: 840 mg/m STEL: 250 ppm 1 STEL: 1050 mg/r NIOSH REL (Uni TWA: 840 mg/m STEL: 250 ppm 1 STEL: 1050 mg/r OSHA PEL (Unit TWA: 200 ppm 8 TWA: 840 mg/m	 ³ 8 hour(s). ³ 8 hour(s). ¹⁵ minute(s). ¹⁵ minute(s). ¹⁶ thour(s). ³ 8 hour(s). ¹⁵ minute(s). ¹⁵ minute(s). ¹⁶ thour(s). ³ 10 hour(s). ¹⁵ minute(s). ¹⁶ thour(s). ¹⁶ minute(s). ¹⁷ minute(s). ¹⁸ minute(s). ¹⁸ thour(s). ¹⁹ minute(s). ¹⁹ thour(s). ¹⁹ thour(s). ¹¹ minute(s). ¹¹ thour(s). ¹¹ thour(s). ¹² thour(s). ¹³ thour(s). ¹⁴ thour(s). ¹⁵ minute(s). ¹⁵ minute(s). ¹⁶ thour(s). 	/1989). 9).		
Personal Protectiv Eyes Safe	ve Equipment (F èty glasses.	<u>PE)</u>					
Body Rec	commended: Neopi	ene gloves. N	Nitrile gloves. Rub	ber gloves.	00		
	oid direct inhalation ditions of product		se with adequate v	entilation. A r	espirator is	not needed under n	ormal and intended
Section 9. Physica	*		1				
Physical State	Liquid.	<u> </u>			Colo	or Colorless.	
pH	8 to 9			Vana		or Pleasant.	
pH Boiling Point	8 to 9 85°C (185°F) 0.97				r Pressur	• Not determined.	
pH Boiling Point Specific Gravity Solubility	85°C (185°F) 0.97 Soluble in the follo	owing materia	als: cold water and	Vap	r Pressur or Densit		
pH Boiling Point Specific Gravity Solubility	85°C (185°F) 0.97	owing materia	als: cold water and	Vap Evapor	r Pressur or Densit ration Rat	We Not determined. We Not determined.	1 lbs/gal (384.1 g/l
pH Boiling Point Specific Gravity Solubility	85°C (185°F) 0.97 Soluble in the follo hot water.		als: cold water and	Vap Evapor	r Pressur or Densit ration Rat	• Not determined. • Not determined. • 1 (Water = 1)	1 lbs/gal (384.1 g/
pH Boiling Point Specific Gravity Solubility <u>Section 10. Stabil</u> Stability and Reac	85°C (185°F) 0.97 Soluble in the follo hot water. Iity and Reactivi			Vap Evapor	r Pressur or Densit ration Rat	• Not determined. • Not determined. • 1 (Water = 1)	1 lbs/gal (384.1 g/l
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility	85°C (185°F) 0.97 Soluble in the follo hot water.	ty product is stal d contact with	ble. h strong oxidizers,	Vap Evapor VOC (excessive hea	r Pressur for Densit ration Rat Consume t, sparks or	 e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. 	
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme	85°C (185°F) 0.97 Soluble in the follo hot water. Iity and Reactivi tivity The p Avoi erization Unde	ty product is stal d contact with er normal con	ble. h strong oxidizers, ditions of storage	Vap Evapor VOC (excessive hea	r Pressur for Densit ration Rat Consume t, sparks or	e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2	
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom	85°C (185°F) 0.97 Soluble in the follo hot water. Ity and Reactivi tivity The I Avoi erization Unden position Produce	ty product is stal d contact with r normal con cts carbon	ble. h strong oxidizers, ditions of storage	Vap Evapor VOC (excessive hea	r Pressur for Densit ration Rat Consume t, sparks or	 e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. 	
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom Section 11. Toxice	85°C (185°F) 0.97 Soluble in the follo hot water. Ity and Reactivi tivity The I Avoi erization Unden position Produce	ty product is stal d contact with r normal con cts carbon	ble. h strong oxidizers, ditions of storage	Vap Evapor VOC (excessive hea	r Pressur for Densit ration Rat Consume t, sparks or	 e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. 	
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom Section 11. Toxice Acute Toxicity Product/ingredier	85°C (185°F) 0.97 Soluble in the follo hot water. itivity The p Avoi erization Under position Produce ological Informa	ty product is stal d contact with r normal con cts carbon	ble. h strong oxidizers, ditions of storage oxides (CO, CO ₂) Result	Vap Evapor VOC (excessive hea and use, hazar	r Pressur ror Densit ration Rat <u>Consume</u> t, sparks or dous polym	<pre>ve Not determined. vy Not determined. ve 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. nerization will not oc Dose</pre>	
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom Section 11. Toxico Acute Toxicity Product/ingredier (2-methoxymethylethoxy)	85°C (185°F) 0.97 Soluble in the follo hot water. itivity The p Avoi erization Under ological Informa ological Informa	ty product is stal d contact with r normal con cts carbon	ble. h strong oxidizers, ditions of storage oxides (CO, CO ₂)	Vap Evapor VOC (excessive hea and use, hazar	r Pressur oor Densit ration Rat <u>Consume</u> t, sparks or dous polym	 e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. herization will not oc 	ccur.
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom Section 11. Toxic Acute Toxicity Product/ingredier (2-methoxymethylethoxy) 2-methylpentane-2,4-diol	85°C (185°F) 0.97 Soluble in the follo hot water. itivity The p Avoi erization Under ological Informa ological Informa	ty product is stal d contact with r normal con cts carbon	ble. h strong oxidizers, ditions of storage oxides (CO, CO ₂) Result LD50 Oral LD50 Oral LC50 Inhalatio	Vap Evapor VOC (excessive hea and use, hazar	r Pressur por Densit ration Rat Consume t, sparks or dous polym	<pre>e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. terization will not oc Dose 5.5 mL/kg 3700 mg/kg 124700 mg/m3</pre>	ccur.
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom Section 11. Toxico Acute Toxicity Product/ingredier (2-methoxymethylethoxy) 2-methylpentane-2,4-diol ethanol	85°C (185°F) 0.97 Soluble in the follo hot water. itivity The p Avoi erization Under ological Informa ological Informa	ty product is stal d contact with r normal con cts carbon	ble. h strong oxidizers, ditions of storage oxides (CO, CO ₂) Result LD50 Oral LD50 Oral	Vap Evapor VOC (excessive hea and use, hazard	r Pressur por Densit ration Rat <u>Consume</u> t, sparks or dous polym Species Rat Rat	<pre>ve Not determined. vy Not determined. vy Not determined. ve 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. nerization will not oc Dose 5.5 mL/kg 3700 mg/kg</pre>	ceur. Exposure
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pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac ncompatibility Hazardous Polyme Hazardous Decom Section 11. Toxica Acute Toxicity Product/ingredier (2-methoxymethylethoxy) 2-methylpentane-2,4-diol ethanol propyl acetate Section 12. Ecolo	85°C (185°F) 0.97 Soluble in the follo hot water. ity and Reactivi tivity The p Avoi erization Under position Produce ological Informatio	ty product is stal d contact with er normal con cts carbon ation	ble. h strong oxidizers, ditions of storage oxides (CO, CO ₂) Result LD50 Oral LD50 Oral LC50 Inhalatio LD50 Oral	Vap Evapor VOC (excessive hea and use, hazard	r Pressur por Densit ration Rat Consume t, sparks or dous polym Species Rat Rat Rat Rat	<pre>ve Not determined. vy Not determined. ve 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. nerization will not oc <u>Dose</u> 5.5 mL/kg 3700 mg/kg 124700 mg/m3 7 g/kg</pre>	Exposure - 4 hours
pH Boiling Point Specific Gravity Solubility Section 10. Stabil Stability and Reac Incompatibility Hazardous Polyme Hazardous Decom Section 11. Toxice Acute Toxicity Product/ingredier (2-methoxymethylethoxy) 2-methylpentane-2,4-diol	85°C (185°F) 0.97 Soluble in the follo hot water. ity and Reactivi tivity The p Avoi erization Unde position Produc ological Informatio propanol	ty product is stal d contact with er normal con cts carbon ation	ble. h strong oxidizers, ditions of storage oxides (CO, CO ₂) Result LD50 Oral LD50 Oral LC50 Inhalatio LD50 Oral	Vap Evapor VOC (excessive hea and use, hazard	r Pressur por Densit ration Rat Consume t, sparks or dous polym Species Rat Rat Rat Rat	e Not determined. y Not determined. e 1 (Water = 1) r) 39.6 % (w/w) 3.2 open flame. herization will not oc 5.5 mL/kg 3700 mg/kg 124700 mg/m3 7 g/kg 9370 mg/kg	Exposure - 4 hours

Product code 2159		Safety Data Sheet	Product Name CONCENTRATED SMOI DEODORIZER (GreenLink	
2-methylpentane-2,4-diol	-	Acute EC50 2800000 ug/L Fresh water	Crustaceans - Water flea - Ceriodaphnia reticulata - Larvae - <24 hours	48 hours
	-	Acute EC50 3200000 ug/L Fresh water	Daphnia - Water flea - Daphnia magna - Larvae - <24 hours	48 hours
	-	Acute LC50 8000000 ug/L Marine water	Fish - Bleak - Alburnus alburnus - 8 cm	96 hours
ethanol	-	Acute LC50 25500 ug/L Marine water	Crustaceans - Brine shrimp - Artemia franchiscana - Larvae	48 hours
propyl acetate	-	Acute LC50 60000 ug/L Fresh water	Fish - Fathead minnow - Pimephales promelas - 30 days - 20.4 mm - 0.148 g	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 Classification: Non-hazardous waste Origin: RCRA waste.

Section 14. Transport Information					
Regulatory information	UN number	Proper shipping name	Classes	PG*	Label
DOT Classification	Not regulated.	-	-	-	
IMDG Class	UN1993	Flammable liquid, n.o.s. (ethanol)	3		

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: No products were found.

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.