



MATERIAL SAFETY DATA SHEET

1. Chemical Product & Company Data

Product name Double O	
Manufacturer: Il Rep-Z, Inc. 4660 Elizabeth St. Coraopolis, PA 15108 Telephone: 1-412-264-8340	Supplier:

2. Hazardous Ingredients

Name	CAS #	UN #	% by volume
D-limonene	5989-27-5		5-10
Dipropylene glycol	25265-71-8		40-70
1-chloro-2-methyl benzene (monochlorotoluene, mixed isomers)	25168-05-2		5-10
Octylphenoxypolyethoxyethanol (nonionic surfactant)	9036-19-5		10-30
Fragrance - Essential Oil	n. av.		15-40

3. Hazards Identification

Emergency Overview

Combustible liquid Skin and eye irritant

NOTE: Hazard information is based on the characteristics of the components of this mixture.

Ingestion - may cause abdominal discomfort, nausea, vomiting and diarrhea. Drowsiness or unconsciousness may occur

Inhalation - low concentration of the vapor may cause irritation of the respiratory tract with possible chest pain and coughing. High concentrations may cause headache and drowsiness.

Eye contact - causes severe eye irritation and possible corneal injury

Skin contact - prolonged contact may cause discomfort, redness, drying and defatting of the skin

4. First Aid

Ingestion - If patient is conscious give two glasses of water. **Do not** induce vomiting. Seek medical attention immediately.

Inhalation - Remove to fresh air. Administer artificial respiration if not breathing.

Eye contact - Flush eyes with water for 15 minutes. Seek immediate medical attention.

Skin contact - Remove contaminated clothing. Wash skin with soap and water. Obtain medical attention if irritation persists.

5. Fire Fighting Measures

Flammability Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, under which conditions? Combustible liquid. Potential fire hazard when exposed to excessive heat flame or other sources of ignition.		
Flashpoint 127 °F (52.7 °C)	Upper flammable limit % by volume n. av.	Lower flammable limit % by volume n. av.	
Autoignition temperature n. av.	Hazardous combustion products carbon dioxide and or carbon monoxide; hydrogen chloride gas		
Explosion data: n. ap.			
Means of extinction: Apply alcohol type or all purpose foam for large fires. Use dry chemical or carbon dioxide extinguishers for small fires. Bunker gear and SCBA for fire department personnel			

6. Accidental Release Measures

Eliminate all sources of ignition Wear personal protective equipment Do not allow spill to reach watercourse or sewers Contain spill with absorbent mats or booms or inert materials such as sand. Material should be readily available in the workplace. Collect and store waste materials in suitable containers for disposal i.e. metal drums
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7. Handling & Storage

Extinguish all sources of ignition in the work area. If the product is stored in metal containers the container must be grounded and bonded prior to dispensing the liquid. To prevent vapor escaping to the atmosphere keep all containers closed or covered. The product should be stored in a separate room equipped for flammable liquid storage or small volumes may be stored in a flammable liquid cabinet. Eyewash stations are required in the workplace. If eye irritation is encountered the use of a full facepiece respirator is recommended. Mechanical ventilation is recommended in enclosed workspaces. Area should be evacuated of all non essential personnel prior to application of product.

8. Exposure Controls & Personal Protection

Personal Protective Equipment		
Gloves neoprene	Respirator NIOSH TC-23C for organic vapors or equivalent	Eye goggles or full face respirator
Footwear n. ap.	Clothing coveralls or equivalent	Other n. ap.

Exposure Guidelines
* none established for product *

Double O

9. Physical & Chemical Properties

Physical state liquid	Odor and appearance clear orange yellow liquid with a citrus like odor	
Odor threshold (ppm) n. av.	Vapor pressure (mm Hg) ~ 5	Vapor density (Air=1) n. av.
Evaporation rate (butyl acetate = 1) n. av.	Boiling point 233.6 °F (122 °C)	Freezing point n. av.
pH 8.2	Specific gravity 0.96	Coefficient water/oil distribution n. av.
Solubility in water 100 %	Viscosity @ 100.4 °F (38 °C) 3.48 cs	% Volatiles (by weight) n. av.

10. Stability & Reactivity

Chemical stability Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If no, under which conditions ?
Incompatibility with other substances Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	If yes, under which conditions ? avoid contact with strong oxidizing and reducing agents
Reactivity, and under what conditions? stable under normal conditions	
Hazardous decomposition products hazardous combustion products carbon dioxide, carbon monoxide, hydrogen chloride gas	

11. Toxicological Information

Route of Entry Skin contact <input checked="" type="checkbox"/> Skin absorption <input type="checkbox"/> Eye contact <input checked="" type="checkbox"/> Inhalation <input checked="" type="checkbox"/> Ingestion <input checked="" type="checkbox"/>			
ortho-chlorotoluene LD ₅₀ oral, rat 2350 mg/kg; LD ₅₀ dermal, rabbit > 7940 mg/kg; LC ₅₀ rat 4 hr. > 3471 ppm para-chlorotoluene LD ₅₀ oral, rat 2100 mg/kg; LD ₅₀ dermal, rabbit > 2000 mg/kg D-limonene LD ₅₀ oral, rat > 5 g/kg			
Carcinogenicity no	Mutagenicity no	Teratogenicity no	Reproductive toxicity no
Synergistic products no	Sensitization no	Neurotoxicity no	Target organs skin and eyes

12. Ecological Information

Octylphenoxypolyethoxyethanol	Aquatic effects 96 hr. Fathead Minnow LC ₅₀ 8.9 mg./L
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13. Disposal Considerations

Do not dispose of product in storm or sanitary sewer systems.
 Do not allow discharge into groundwater or a watercourse.
 If product is to be disposed of, contact a licensed or registered waste disposal firm to incinerate the product.

14. Transport Information

US air freight, vessel or international shipments

Shipping name	FLAMMABLE LIQUIDS, N.O.S. (Contains: Monochlorotoluene)
Hazard class	3
UN Identification #	1993

Packing Group III

US ground (truck or rail shipments)

This product is not regulated by the US DOT for truck or rail shipments in containers of 119 gallons or less.

Double-O contains an ingredient considered to be a marine pollutant.

15. Regulatory Information

This material safety data sheet has been prepared in accordance with the requirements of the OSHA Hazard Communication Standard (29 CFR 1910.1200) and the Hazardous Products Act (Can.) and the Controlled Products Regulations (Can.) This product has been classified in accordance with the hazard criteria of the CPR (Can.) and the MSDS contains all the information required by the CPR (Can.).

This product is classed as a **combustible liquid and as a skin and eye irritant** - 29 CFR 1910.1200 and Controlled Products Regulations (Can.)

WHMIS classification **B3 D2B**

This product is not subject to the reporting requirements of Section 313 of Title III of Superfund Amendments and Reauthorization Act (SARA) 1986 and 40 CFR part 372

16. Other Information

This product is used as a commercial deodorizing compound

For chemical emergency during transportation call INFOTRAC (US) **1-800-535-5053** (INT'L) **1-352-323-3500**

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abbreviations

n. av. = not available n. ap. = not applicable ppm = parts per million mm Hg = millimeters of Mercury
 cs = centistokes PMCC = Pensky Martens Closed Cup TCC = Tagliabue Closed Cup COC = Cleveland Open Cup
 TWA = time weighted average STEL = short term exposure limit LD= lethal dose LC=lethal concentration