

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 MORADO SUPER CLEANER
Product use Industrial Cleaner and Degreaser
Product code 0856
Date of issue 08/11/08 **Supersedes** 02/16/07

Emergency Telephone Numbers

For MSDS Information:

Compliance Services 1-877-I-BUY-ZEP (428-9937)

For Medical Emergency

INFOTRAC: (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

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Prepared By

Compliance Services
1420 Seaboard Industrial Blvd.
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Section 2. Hazards Identification

Emergency overview

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

DANGER !



CAUSES EYE AND SKIN BURNS. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. 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 burns. Direct contact with the eyes can cause irreversible damage, including blindness.

Skin

Causes skin burns. Harmful if absorbed through the skin. Skin inflammation is characterized by itching, scaling, reddening or, occasionally, blistering.

Inhalation

Avoid breathing vapors, spray or mists. 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. Can cause central nervous system (CNS) depression.

Ingestion

Harmful if swallowed. May cause burns to mouth, throat and stomach.

Chronic effects

Overexposure of this product by inhalation or absorption can produce central nervous system depression resulting in headache, nausea and/or dizziness. Repeated or prolonged contact with spray or mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray or mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection. Contains material which may cause damage to the following organs: blood, kidneys, liver, upper respiratory tract, skin, eyes, central nervous system (CNS).

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

Additional Information: See Toxicological Information (Section 11)

Section 3. Composition/Information on Ingredients

Name of Hazardous Ingredients

Name of Hazardous Ingredients	CAS number	% by Weight
SODIUM HYDROXIDE; caustic soda; soda lye	1310-73-2	1 - 10
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	1 - 5
DODECYL BENZENE SULFONIC ACID; alkyl aryl sulfonic acid	27176-87-0	1 - 5
C12-C14 ETHOXYLATED ALCOHOLS	68551-12-2	<3
DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol	112-34-5	<3

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 contaminated skin with plenty of water. Remove contaminated clothing and shoes. Wash clothing before reuse. Get medical attention immediately.
Inhalation	Move exposed person 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. If vomiting occurs, the head should be kept low so that vomit does not enter the lungs. If affected person is conscious, give plenty of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Section 5. Fire Fighting Measures

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



Flash Point	Closed cup: >93.3°C (>199.9°F)
Flammable Limits	Not applicable
Flammability	Non-combustible.
Fire hazard	In a fire or if heated, a pressure increase will occur and the container may burst. May emit toxic fumes under fire conditions.
Fire-Fighting Procedures	Use an extinguishing agent suitable for the surrounding fire. Do not release runoff from fire to sewers or waterways.

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.
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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 vapor or mist. Use with adequate ventilation. Do not ingest. Do not reuse container. Wash thoroughly after handling. Observe label precautions.
Storage	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. 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**

SODIUM HYDROXIDE; caustic soda; soda lye

ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve

DODECYL BENZENE SULFONIC ACID; alkyl aryl sulfonic acid

DIETHYLENE GLYCOL MONOBUTYL ETHER; 2-(2-butoxyethoxy)-ethanol; butyl carbitol

Exposure limits**ACGIH / OSHA (United States).**CEIL: 2 mg/m³**ACGIH TLV (United States).**

TWA: 20 ppm 8 hour(s). Form:

OSHA PEL (United States). Skin

TWA: 50 ppm 8 hour(s). Form:

ACGIH / OSHA (United States).TWA: 1 mg/m³ 8 hour(s).**ACGIH TLV (United States).**STEL: 3 mg/m³ 15 minute(s).**Manufacturer (United States).**

TWA: 35 ppm 8 hour(s).

Personal Protective Equipment (PPE)

Eyes	Splash goggles. Face shield.
Body	Wear appropriate protective clothing to prevent skin contact. Recommended: Neoprene gloves. Nitrile gloves. Rubber gloves. Synthetic apron. Chemical resistant boots.
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. Wear appropriate respirator when ventilation is inadequate.



Section 9. Physical and Chemical Properties

Physical State	Liquid.	Color	Clear. Purple.
pH	13.0 - 14.0	Odor	Mild. Ethereal.
Boiling Point	98.9°C (210°F)	Vapor Pressure	Not determined.
Specific Gravity	1.06	Vapor Density	>1 [Air = 1]
Solubility	Easily soluble in the following materials: cold water and hot water.	Evaporation Rate	1 (Water = 1)
		VOC (Consumer)	42 (g/l). 0.35 lbs/gal (3.98%)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive or incompatible with the following materials: oxidizing materials, metals and acids.
Hazardous Polymerization	Will not occur.
Hazardous Decomposition Products	carbon oxides (CO, CO ₂)

Section 11. Toxicological Information**Acute Toxicity**

Product/ingredient name	Result	Species	Dose	Exposure
Sodium Hydroxide	LD50 Dermal	Rabbit	>2000 mg/kg	-
	LD50 Oral	Rat	500 mg/kg	-
Ethylene Glycol Monobutyl Ether	LD50 Dermal	Rabbit	680 mg/kg	-
	LD50 Oral	Rat	1746 mg/kg	-
Dodecylbenzene sulfonic acid	LC50 Inhalation Vapor	Rat	450 ppm	4 hours
	LD50 Oral	Rat	2140 mg/kg	-
	LC50 Inhalation Vapor	Rat	510 mg/m ³	2 hours
Diethylene Glycol Monobutyl Ether	LC50 Inhalation Vapor	Mouse	320 mg/m ³	2 hours
	LD50 Dermal	Rabbit	2700 mg/kg	-
	LD50 Oral	Rat	5660 mg/kg	-
	LD50 Oral	Mouse	2400 mg/kg	-

Section 12. Ecological Information

Environmental Effects No known significant effects or critical hazards.

Aquatic Ecotoxicity

Product/ingredient name	Test	Result	Species	Exposure
Sodium Hydroxide	-	Acute LC50 25 ppm	Fish - Trout	24 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 (Sodium Hydroxide)	8	II	
IMDG Class	Not determined.				

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:

Product name

Ethylene Glycol Monobutyl Ether
Diethylene Glycol Monobutyl Ether

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

Clean Water Act (CWA) 311: Dodecylbenzene sulfonic acid (RQ 5000 lbs); Sodium Hydroxide (RQ 1000 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.