



Material Safety Data Sheet

and Safe Handling and Disposal Information

Section 1. Chemical Product and Company Identification

Product name MORADO SUPER CLEANER
Product Use Heavy Duty Cleaner
Product Code 0856
Date of issue 05/25/07 **Supersedes** 08/13/04

Emergency For MSDS Information:
Telephone Numbers Technical Services Group
 Zep Manufacturing of Canada
 Telephone: (780) 453-8100 (Business Hours 8:00-5:00)

For a Medical or Transportation Emergency:
 CANUTEC (24 Hours)
 (613) 996-6666 - Call Collect

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 Edmonton, Alberta T5S 1N6

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Section 2. Composition, Information on Ingredients

Name of Hazardous Ingredients	CAS #	% by Weight	Toxicity Data			
ETHYLENE GLYCOL MONOBUTYL ETHER; 2-butoxyethanol; butyl cellosolve	111-76-2	3 - 7	LD50	Rat	Oral	1746 mg/kg
			LD50	Rabbit	Dermal	680 mg/kg
			LC50	Rat	Inhalation	450 ppm (4 hour(s))
SODIUM HYDROXIDE; caustic soda; soda lye	1310-73-2	3 - 7	LD50	Rat	Oral	500 mg/kg
			LD50	Rabbit	Dermal	>2000 mg/kg
ALCOHOLS, C9-11, ETHOXYLATED; linear primary alcohol ethoxylate	68439-46-3	1 - 5	LD50	Rat	Oral	1400 mg/kg
			LD50	Rabbit	Dermal	>5000 mg/kg
DODECYL BENZENE SULFONIC ACID; alkyl aryl sulfonic acid	27176-87-0	1 - 5	LD50	Rat	Oral	2140 mg/kg
			LC50	Rat	Inhalation	510 mg/m ³ (2 hour(s))
			LC50	Mouse	Inhalation	320 mg/m ³ (2 hour(s))
ALPHA OLEFIN SULFONATE; SODIUM SALT; sulfonic acids; c14-18 alkane and c12-20 alkene; c12-20 alkenehydroxy; sodium salts	68439-57-6	1 - 5	LD50	Rat	Oral	5000 mg/kg
			LD50	Rabbit	Dermal	2000 mg/kg

Section 3. Hazards Identification

Acute Effects

Routes of Entry Dermal contact. Eye contact. Inhalation. Ingestion.

- Skin** Causes skin burns. Harmful if absorbed through the skin.
- Eyes** Causes eye burns. Direct contact with the eyes can cause irreversible damage including blindness.
- Inhalation** Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath.
- 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. The substance may be toxic to blood, kidneys, liver. Repeated or prolonged exposure to the substance can produce target organs damage. Repeated or prolonged contact with spray mist may produce chronic eye irritation and severe skin irritation. Repeated or prolonged exposure to spray mist may produce respiratory tract irritation leading to frequent attacks of bronchial infection.

Additional information : See Toxicological Information (section 11)

Section 4. First Aid Measures

- Eye Contact** Immediately flush eyes with running water for at least 15 minutes, keeping eyelids open. 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 immediately.
- Inhalation** If excessive quantities inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. If symptoms persist, seek immediate medical attention.
- 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

Flash Point	Closed cup: Higher than 93.3°C (200°F). (Tagliabue.)	Flammable Limits Not applicable.
Flammability	Aqueous solutions are non-flammable.	
Auto-ignition Temperature	Not applicable.	
Fire-Fighting Procedures	Use DRY chemicals, CQ, water spray or foam. Wear special protective clothing and positive pressure, self-contained breathing apparatus.	
Fire Hazard	May emit toxic fumes under fire conditions.	
Products of Combustion	Carbon Dioxide, Carbon Monoxide and other organic materials..	
Explosion hazard	Not considered as a product presenting risks of explosion according to our data ba:	

Section 6. Accidental Release Measures

Spill Clean up Put on appropriate personal protective equipment (see Section 8). Absorb with an inert material and place in an appropriate waste disposal container. To clean the floor and all objects contaminated by this material, use detergent. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements. Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.


Section 7. Handling and Storage

Handling	Do not get in eyes, on skin, or on clothing. Do not ingest. Avoid breathing vapors or spray mists. Use only with adequate ventilation. Wash thoroughly after handling. Wash contaminated clothing before reusing.
Storage	Keep container tightly closed. Store away from incompatible materials. Keep container in a cool, well-ventilated area. Store between 40°F - 120°F (4.4°C - 49°C). Keep out of the reach of children.

Section 8. Exposure Controls, Personal Protection

Engineering Controls Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective threshold limit value. Ensure that eyewash station and safety shower is proximal to the work-station location.

Personal Protection

Eyes	Chemical splash goggles and face shield.	Protective Clothing (Pictograms) 
Hands and Body	Chemical resistant gloves. Recommended: Neoprene gloves. Nitrile gloves. Latex gloves. Chemical resistant apron. 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.	

Exposure Limits

Name of Hazardous Ingredients	CAS #	Exposure Limits
Ethylene Glycol Monobutyl Ether	111-76-2	ACGIH TLV (United States). TWA: 20 ppm 8 hour(s). OSHA PEL (United States). Skin TWA: 50 ppm 8 hour(s).
Sodium Hydroxide	1310-73-2	ACGIH / OSHA (United States). CEIL: 2 mg/m ³
Dodecylbenzene sulfonic acid	27176-87-0	ACGIH / OSHA (United States). TWA: 1 mg/m ³ 8 hour(s). ACGIH TLV (United States). STEL: 3 mg/m ³ 15 minute(s).

Consult local authorities for acceptable exposure limits.

Section 9. Physical and Chemical Properties

Physical State	Liquid. (Clear to slightly hazy.)	Color Purple.
pH	13.0-14.0	Odor Ethereal.
Boiling Point	98.9°C (210°F)	Vapor Pressure Not determined.
Freezing Point	May start to solidify at 20°C (68°F) based on data for: SXS-40%. Weighted average: -3.77°C (25.2°F)	Vapor Density >1 (Air = 1)
Specific Gravity	1.06 (Water = 1)	Evaporation Rate >1 compared to Water
Solubility	Easily soluble in cold water, hot water.	VOC (Consumer) 42 (g/l). (3.98%. 0.35 lbs/gal)

Section 10. Stability and Reactivity

Stability and Reactivity	The product is stable.
Incompatibility	Reactive with oxidizing agents, metals, acids.
Reactivity	Will not occur.
Hazardous Decomposition Products	Carbon Dioxide, Carbon Monoxide and other organic materials..

Section 11. Toxicological Information**Carcinogenic Effects** Ingredients: Not listed as carcinogen by OSHA, NTP or IARC.**Reproductive Effects****Mutagenic Effects****Teratogenic Effects****Section 12. Ecological Information****Ecotoxicity** Not available.**Biodegradable/OECD** Not available.**Section 13. Disposal Considerations**

Waste Information Waste must be disposed according to applicable regulations. Consult your local or regional authorities.

Waste Stream Code: - D002
Classification: - (Hazardous waste.)
Origin: - (RCRA waste.)

Section 14. Transport Information

Regulatory Information	UN number	Proper shipping name	Class	Packing Group	Label	Additional information
TDG Classification	3266	Corrosive liquid, basic, inorganic, n.o.s. (Sodium Hydroxide)	8	II		Explosive Limit and Limited Quantity Index 1

Limited Quantity: Small quantities of controlled goods are not regulated as Dangerous Goods according to the TDG regulations.

Section 15. Regulatory Information

WHMIS (Canada) Class D-2B: Material causing other toxic effects (TOXIC).
Class E: Corrosive liquid.

Other Regulations

This product has been classified according to the hazard criteria of the CPR and the MSDS contains all of the available information required by the CPR.

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.