

**MICHIGAN STATE INDUSTRIES
HEAVY DUTY LIQUID LAUNDRY DETERGENT**

SAFETY DATA SHEET

SECTION 1 – PRODUCT NAME AND COMPANY IDENTIFICATION



1.1 Product name: Heavy Duty Liquid Laundry Detergent
General use: Proprietary industrial cleaner
Product description: Green liquid with citrus odor
Product number(s): 8800

1.2 Manufacturer: Michigan State Industries, 1780 E. Parnall Rd, Jackson, MI
Telephone number: 48212 (517) - 780 - 6726
Emergency number: Poison Control Center: (800) - 222 - 1222

Date prepared: June 9, 2015; supersedes any previous editions
Prepared by Kinetic Solutions (423-802-0684, petersteyn@msn.com)

SECTION 2 – HAZARDS IDENTIFICATION

2.1 Classification of the substance: Cat. 1A; Skin Cat. 1; Eye Cat. 2; Aquatic

GHS05 GHS09

2.2 Signal word: **DANGER**

2.3 Hazard statement: H314: Causes severe skin and eye irritation.
H410: Very toxic to aquatic life with long lasting effects.

2.4 Precautionary prevention statements: P264: Wash exposed skin thoroughly after handling.
P280: Wear protective gloves/protective clothing/eye protection/face protection.

2.5 Precautionary response statements P312: Call a **POISON CENTER** or doctor / physician if you feel unwell.
P301, P330, P381: **IF SWALLOWED:** Rinse mouth. Do NOT induce vomiting.
P304, P340: **IF INHALED:** Remove victim to fresh air, rest in a position comfortable for breathing.
P305, P351, P338: **IF IN EYES:** Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing as needed.

2.6 Precautionary disposal statement: P363: Wash contaminated clothing before reuse.
P501: Dispose of contents/container in accordance with local / national / international regulations.

2.7 NFPA / HMIS rating: Factory 2, 0, 0, COR
End User (concentrated/diluted) 1, 0, 0, COR

SECTION 3 – COMPOSITION / INFORMATION ON INGREDIENTS

3.1 Hazardous components:	CAS #	% by wt.	OSHA PEL		ACGIH TLV		SARA TITLE III	RQ (lbs.)
			PPM	mg/M ³	PPM	mg/M ³		
Nonylphenol ethoxylate	9016-45-9	< 12%	Not est.		Not est.	311 / 312	None	
Potassium metasilicate	1312-76-1	< 4%	2	2	Not est.	311 / 312	None	

The remaining components of this product are non-hazardous or are in small enough quantities as to not meet regulatory thresholds for disclosure.
These components contain no substances or impurities which would influence the classification of this product.
All components and their specific proportions in this product are considered proprietary to Michigan State Industries.

SECTION 4 – FIRST AID MEASURES

4.1 Description of first aid measures

General information: Immediately remove any clothing soiled by the product. Always seek medical help for any over exposure.

After inhalation: In case of unconsciousness place patient stably in side position for transportation. Supply fresh air. If required, provide artificial respiration. Keep patient warm.

After skin contact: Immediately rinse with water. Seek immediate medical advice.

After eye contact: Remove contact lenses if worn. Rinse eyes for several minutes under running water. Seek medical advice.

After swallowing: Do not induce vomiting; call for medical help immediately. Rinse out mouth and then drink plenty of water. A person vomiting while on their back should be turned onto their side.

MICHIGAN STATE INDUSTRIES HEAVY DUTY LIQUID LAUNDRY DETERGENT

SECTION 5 – FIRE FIGHTING PROCEDURES

- 5.1 Extinguishing media: Carbon dioxide, water fog, chemical foam, dry chemical. Material is non-flammable.
- 5.2 General hazards: Material is irritating, avoid contact and conditions that result in agitating or foaming the material.
- 5.3 Advice for firefighters: Protective equipment: Wear a self-contained respiratory protective device.
- 5.4 Unusual hazards: None.
- 5.5 Firefighting procedures: Keep containers cool with water spray to prevent container rupture due to steam buildup; floor will become slippery if material is released. Material is alkaline and will irritate the eyes if product or fumes contact the eyes.
- 5.6 Decomposition compounds: Oxides of carbon, sodium, silicon and potassium may be released with sufficient thermal energy.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

- 6.1 Protective equipment and emergency procedures: Wear protective equipment. Keep unprotected persons away. Particular danger of slipping on leaked / spilled product. Ensure adequate ventilation, material is irritating, avoid direct contact.
- 6.2 Environmental precautions: Dilute with plenty of water and do not allow it to enter sewers, surface or ground water.
- 6.3 Methods and materials for Containment and clean up: Absorb with liquid-binding material (sand, diatomite, universal binders, sawdust). Use neutralizing agent. Clean the affected area carefully, dispose contaminated material as waste according to Section 13.
- 6.4 Reference to other sections: See Section 7 for information on safe handling. See Section 8 for information on personal protection equipment.

SECTION 7 – HANDLING AND STORAGE

- 7.1 Precautions for safe handling: Ensure good ventilation / exhaustion at the workplace. Prevent formation of aerosols.
- 7.2 Conditions for safe storage: Do not store together with acids or foodstuffs. Store in cool, dry conditions in well-sealed receptacles.
- 7.3 Specific end use(s): No further relevant information available.

SECTION 8 - EXPOSURE CONTROLS / PERSONAL PROTECTION

- 8.1 Exposure controls: **General protective and hygienic measures:** Keep away from foodstuffs and beverages. Immediately remove all soiled and contaminated clothing. Wash hands before breaks and at the end of work. Avoid direct contact with the eyes and skin.
- Respiratory protection:** None required unless product is aerated or sprayed.
- Protection of hands:** Protective gloves, the glove material has to be impermeable and resistant to the product, such as neoprene, butyl or nitrile rubber gloves with cuffs.
- Eye protection:** Safety glasses and / or goggles with side shields.
- Body protection:** Protective work clothing.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

- 9.1 Appearance: Green liquid
- Odor: Citrus
- Odor threshold: ND
- pH (10%): 12.0
- Melting point / freezing point: ND
- Initial boiling point and boiling range: ND
- Flash point: ND
- Evaporation rate: ND
- Flammability (solid, gas): ND
- Upper / lower flammability or explosive limits: ND
- Vapor pressure: ND
- Vapor density: ND
- Relative density: 1.07, 25°C
- Solubility: Complete
- Partition coefficient: n-octanol/water: ND
- Auto ignition temperature: ND
- Decomposition temperature: ND
- 9.2 Other information: None

MICHIGAN STATE INDUSTRIES HEAVY DUTY LIQUID LAUNDRY DETERGENT

SECTION 10 – STABILITY AND REACTIVITY

10.1	Reactivity:	No spontaneous reactivity
10.2	Chemical stability:	Thermal decomposition possible at temperatures exceeding 600°F, no decomposition if used according to specifications.
10.3	Possible hazardous reactions:	Corrosive action on metals, reacts with powdered metals, reacts strongly with acids.
10.4	Conditions to avoid:	No further relevant information available.
10.5	Incompatible materials:	Strong oxidizers and acids.
10.6	Decomposition products:	Oxides of carbon, sodium, potassium, silicon and nitrogen.

SECTION 11 – TOXICOLOGICAL INFORMATION

11.1	Hazardous Ingredients	CAS #	EINECS #	LD 50, species / route / concentration
	Nonylphenol ethoxylate	9016-45-9	104-40-5	Rat, oral, 3908 mg/kg
	Potassium metasilicate	1312-76-1	215-199-1	Rat, oral, 800 mg/kg
11.2	Serious eye damage/irritation:	Causes severe eye damage.		
11.3	Respiratory or skin sensitization:	No data available		
11.4	Repeated dose toxicity:	No data available		
11.5	STOT (single/repeated)	No data available		
11.6	Carcinogenicity:	No data available		
11.7	Mutagenicity:	No data available		
11.8	Reproductive toxicity:	No data available		

SECTION 12 – ECOLOGICAL INFORMATION

12.1	Toxicity:	Nonylphenol ethoxylate:	LC50, Fathead minnow, 3.8 mg/liter (96 hours)
		Potassium metasilicate:	LC50, Fathead minnow, 500 mg/liter (96 hours)
		Finished product:	No available data
12.2	Persistence and degradability:	Expected to be easily biodegradable based on composition.	
12.3	Bio accumulative potential:	Not expected to exhibit this behavior based on composition.	
12.4	Soil mobility:	No specific data available.	
12.5	General information:	No data are available on the adverse effects of this material on the environment. Neither COD nor BOD data are available. Based on the chemical composition of this product it is assumed that the mixture can be treated in an acclimatized biological waste treatment plant system in limited quantities. However, such treatment should be evaluated and approved for each specific biological system. None of the ingredients in this mixture are classified as a Marine Pollutant.	

SECTION 13 – DISPOSAL CONSIDERATIONS

13.1	Waste treatment methods:	It is recommended that small amounts may be diluted with plenty of water and washed away. Dispose of bigger amounts in accordance with Local Authority requirements. Refer to 40 CFR 260 - 299 for complete waste disposal regulations for alkaline materials. Consult your local, state, or federal agency before disposing of any chemicals.
------	--------------------------	--

MICHIGAN STATE INDUSTRIES HEAVY DUTY LIQUID LAUNDRY DETERGENT

SECTION 14 – TRANSPORTATION INFORMATION

14.1	UN number:	UN1760
	DOT, ADR, IMDG, IATA	
14.2	Proper shipping name:	Corrosive liquid, N.O.S.
	DOT, ADR, IMDG, IATA	
14.3	Transport hazard class:	8
	DOT, ADR, IMDG, IATA	
14.4	Packing group:	III, Corrosive
	DOT, ADR, IMDG, IATA	
14.5	Environmental hazards:	Yes
	Marine	

Note: Transportation information provided is for reference only. Customer is urged to consult 49 CFR 100 - 177, IMDG, IATA, EC, United Nations TDG, and WHMIS (Canada) TDG information manuals for detailed regulations and exceptions covering specific container sizes, packaging materials and methods of shipping.

SECTION 15 – REGULATORY INFORMATION

15.1	TSCA:	All components of this product are listed on the U.S. Toxic Substances Control Act Chemical Inventory (TSCA Inventory) or are exempted from listing because a Low Volume Exemption has been granted in accordance with 40 CFR 723.50.
15.2	SARA TITLE III:	Not regulated under 302, 303, 313. Regulated under 311 / 312.
15.3	CERCLA:	Ethylene oxide CAS # 75-21-8 RQ 10 lbs. 1,4-dioxane CAS # 123-91-1 RQ 10 lbs.
15.4	Clean Air Act:	No ingredients defined as Hazardous Air Pollutants or Stratospheric Ozone Depleting.
15.5	California Prop. 65:	This product contains a chemical(s) known to the state of California to cause cancer. (Ethylene oxide CAS # 75-21-8, 1,4-dioxane CAS # 123-91-1)
15.6	Right To Know:	NJ, PA, MI, RI, MN for nonylphenol ethoxylate (CAS # 9016-45-0). MA, MI, MN for ethylene oxide (CAS # 75-21-8) and 1,4-dioxane (CAS # 123-91-1).
15.7	CPR classification:	WHMIS Classification: D2B, E
15.8	Canadian IDL:	Components of this product identified by CAS number and listed on the Canadian Ingredient Disclosure List are shown in Section 2.
15.9	Can. DSL / NDSL:	Components of this product identified by CAS number are listed on the DSL or NDSL, or are otherwise in compliance with the New Substances Notification (NSN) regulations. Only ingredients classified as "hazardous" are listed in Section 2 unless otherwise indicated.
15.10	EINECS:	Components of this product identified by CAS numbers are on the European Inventory of Existing Commercial Chemical Substances.

SECTION 16 – OTHER INFORMATION

16.1	Risk phrases:	R35 / 41: Causes serious skin burns / Risk of serious damage to eyes. R400: Toxic to aquatic life with long lasting effects.
	Safety phrases:	S36 / 37 / 39: Wear protective clothing, gloves, and eye / face protection.



GHS05



GHS09

Symbol for label:

Terms and Conditions. This SDS is designed only as guidance for the products to which it applies. To the greatest extent permitted by applicable law, nothing contained herein creates any legal obligation including contractual obligations, expressed or implied warranties, including any warranties of use or fitness for particular purpose. The information contained herein is based on the manufacturer's own study and the work of others, and is subject to change at any time without further notice. There is no warranty, expressed or implied, as to the accuracy, completeness or adequacy of the information contained herein, and neither the provider nor the manufacturer (nor the agents, directors, officers, contractors or employees of either) are liable to any party for any damages of any nature, including direct, special or consequential damages arising out of or in connection with the accuracy, completeness, adequacy or furnishing of any information in this SDS, or in any other way related (directly or indirectly) to this SDS. The receipt and use of this information constitutes consent to these terms and conditions.