


**SAFETY DATA SHEET**  
**Conforms to OSHA HazCom 2012 Standard**

**Section 1 - Identification**

**Product Identifier** INDUSTRIAL CLEANER 812  
**Recommended use** Alkaline cleaner.  
**Recommended restrictions** For commercial and industrial use only.  
**Manufacturer / Importer / Supplier / Distributor Information**  
**Company Name** TWIN SPECIALTIES CORP.  
**Address** CONSHOHOCKEN, PA 19428  
**Emergency Phone** 215-834-7900

**Section 2 - Hazard(s) Identification**

SDS Hazards and Warnings are based on the undiluted product. Refer to diluted SDS for Ready-To-Use Hazards and Warnings.

	<b>Classification</b>	<b>Category</b>
<b>Physical Hazards</b>	Not Classified	
<b>Health Hazards</b>	Serious eye damage/eye irritation	1
	Skin corrosion/irritation	1
<b>OSHA defined hazards</b>	Not Classified.	
<b>Label Elements</b>		
<b>Hazard Symbol</b>		
<b>Signal Word</b>	Danger	
<b>Hazard statement</b>	Causes severe skin burns and eye damage.	
<b>Precautionary statement</b>		
<b>Prevention</b>	Do not breathe mist or vapor. Wash thoroughly after handling. Wear protective gloves/protective clothing/eye protection/face protection.	
<b>Response</b>	If swallowed: Rinse mouth. Do NOT induce vomiting. If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower. If inhaled: Remove person to fresh air and keep comfortable for breathing. If in eyes: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a poison center/doctor. Wash contaminated clothing before reuse.	
<b>Storage</b>	Keep container tightly closed. Store locked up.	
<b>Disposal</b>	Dispose of contents/container in accordance with local/regional/national/international regulations.	
<b>Hazard(s) not otherwise classified (HNOC)</b>	None known.	

**Section 3 - Composition/Information on ingredients**

**Mixture**

**Hazardous Components**

Ingredient Name	CAS #	%
2-(2-Butoxyethoxy) Ethanol	112-34-5	1 - 5
Sodium Hydroxide	1310-73-2	1 - 5

**Section 4 - First-aid Measures**

**Inhalation** If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if symptoms develop or persist.

**Skin contact** Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.

**Eye contact** Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.

**Ingestion** Call a physician or poison control center immediately. Rinse mouth. Do not induce

# SAFETY DATA SHEET

## Conforms to OSHA HazCom 2012 Standard

<b>Most Important symptoms /effects, acute and delayed</b>	vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs. Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.
<b>Indication of immediate medical attention and special treatment</b>	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
<b>General Information</b>	If you feel unwell, seek medical advice (show the label where possible). Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.

### Section 5 - Fire-fighting measures

<b>Suitable extinguishing media</b>	Alcohol resistant foam. Water fog. Dry chemical powder. Carbon dioxide (CO2).
<b>Unsuitable extinguishing media</b>	Do not use water jet as an extinguisher, as this will spread the fire.
<b>Specific hazards arising from the chemical</b>	During fire, gases hazardous to health may be formed.
<b>Special protective equipment and precautions for firefighters</b>	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
<b>Fire-fighting equipment /instruction</b>	Move containers from fire area if you can do it without risk.
<b>General fire hazards</b>	No unusual fire or explosion hazards noted.
<b>Specific Methods</b>	Use <i>standard firefighting procedures and consider the hazards of other involved materials.</i>

### Section 6 - Accidental release measures

<b>Personal precautions, protective equipment and emergency procedures.</b>	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Keep out of low areas. Wear appropriate protective equipment and clothing during clean-up. Do not breathe mist or vapor. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
<b>Methods and materials for containment and cleaning up</b>	This product is miscible in water. Large Spills: Stop the flow of material, if this is without risk. Use water spray to reduce vapors or divert vapor cloud drift. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Prevent entry into waterways, sewer, basements or confined areas. Following product recovery, flush area with water. Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination. Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS.

**Environmental precautions** Avoid discharge into drains, water courses or onto the ground.

### Section 7 - Handling and storage

<b>Precautions for safe handling</b>	Do not breathe mist or vapor. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Do not taste or swallow. When using, do not eat, drink or smoke. Provide adequate ventilation. Wear appropriate personal protective equipment. Wash hands thoroughly after handling. Observe good industrial hygiene practices.
<b>Conditions for safe storage, including any incompatibilities</b>	Store locked up. Store in original tightly closed container. Store away from incompatible materials (see Section 10 of the SDS).

### Section 8 - Exposure control/personal protection

**Occupational exposure limits**  
US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)



# SAFETY DATA SHEET

## Conforms to OSHA HazCom 2012 Standard

Components	Type	Value
Sodium Hydroxide (CAS 1310-73-2)	TWA	2 mg/m <sup>3</sup>

### US. ACGIH Threshold Limit Values

Component	Type	Value
Sodium Hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)	TWA	10 ppm

### US. NIOSH: Pocket Guide to Chemical Hazards

Components	Type	Value
Sodium Hydroxide (CAS 1310-73-2)	Ceiling	2 mg/m <sup>3</sup>

<b>Biological limit values</b>	No biological exposure limits noted for the ingredient(s).
<b>Appropriate engineering controls</b>	Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level. Eye wash facilities and emergency shower must be available when handling this product.
<b>Individual protection measures, such as personal protective equipment</b>	
<b>Eye/face protection</b>	Wear safety glasses with side shields (or goggles) and a face shield.
<b>Skin protection</b>	
<b>Hand protection</b>	Wear appropriate chemical resistant gloves.
<b>Other</b>	Wear appropriate chemical resistant clothing.
<b>Respiratory protection</b>	In case of insufficient ventilation, wear suitable respiratory equipment. No personal respiratory protective equipment normally required.
<b>Thermal hazards</b>	Wear appropriate thermal protective clothing, when necessary.
<b>General hygiene considerations</b>	Keep away from food and drink. Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants.

## Section 9 - Physical and chemical properties

<b>Appearance</b>	
<b>Physical state</b>	Liquid.
<b>Form</b>	Clear, thin liquid.
<b>Color</b>	Violet.
<b>Odor</b>	Mild, pleasant.
<b>Odor threshold</b>	Not available.
<b>pH</b>	13.3
<b>Melting point/freezing point</b>	Not available.
<b>Initial boiling point and boiling range</b>	212 °F (100 °C)
<b>Flash point</b>	> 212.0 °F (> 100.0 °C)
<b>Evaporation rate</b>	Not available.
<b>Flammability (solid, gas)</b>	Not available.
<b>Upper/lower flammability or explosive limits</b>	
<b>Flammability limit - lower (%)</b>	Not available.
<b>Flammability limit - upper (%)</b>	Not available.
<b>Explosive limit - lower (%)</b>	Not available.
<b>Explosive limit - upper (%)</b>	Not available.
<b>Vapor pressure</b>	Similar to water.
<b>Vapor density</b>	Similar to water.
<b>Relative density</b>	1.05 ± 0.01
<b>Relative density temperature</b>	75 °F (23.89 °C)
<b>Solubilities</b>	Completely Soluble
<b>Partition Coefficient n-octanol/water</b>	Not available



# SAFETY DATA SHEET

**Conforms to OSHA HazCom 2012 Standard**

Auto-ignition temperature Not Available  
Decomposition temperature Not Available  
Viscosity <10 cP  
Viscosity Temperature 75 °F (23.89 °C)

## Section 10 - Stability and reactivity

**Reactivity** Reacts violently with strong acids. This product may react with oxidizing agents.  
**Chemical stability** Material is stable under normal conditions.  
**Possibility of hazardous reaction** No dangerous reaction known under conditions of normal use.  
**Conditions to Avoid** Do not mix with other chemicals. Contact with incompatible materials.  
**Incompatible materials** Strong acids. Acids. Strong oxidizing agents. Oxidizing agents.  
**Hazardous Decomposition Products** No hazardous decomposition products are known.

## Section 11 - Toxicological information

### Information on likely routes of exposure

**Ingestion** Causes digestive tract burns. Harmful if swallowed.  
**Inhalation** May cause irritation to the respiratory system. Prolonged inhalation may be harmful.  
**Skin contact** Causes severe skin burns.  
Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

**Eye contact** Causes serious eye damage.

**Symptoms related to the physical, chemical and toxicological characteristics** Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result. May cause respiratory irritation.

### Information on toxicological effects.

**Acute toxicity** Harmful if swallowed. May cause respiratory irritation.

Components	Level	Type	Code	Species	Results
Sodium Hydroxide (CAS 1310-73-2)	Acute	Oral	LD50	Rabbit	500 mg/kg
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)	Acute	Dermal	LD50	Rabbit	2764 mg/kg, (Male)

**Skin corrosion/irritation** Causes severe skin burns and eye damage.

**Serious eye damage/ eye irritation** Causes serious eye damage.

**Respiratory sensitization** This product is not expected to cause respiratory sensitization.

**Skin sensitization** This product is not expected to cause skin sensitization.

**Germ cell mutagenicity** No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.

**Carcinogenicity** This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.

**Reproductive toxicity** This product is not expected to cause reproductive or developmental effects.

**Specific target organ toxicity - single exposure** May cause respiratory irritation.

**Specific target organ toxicity - repeated exposure** Not classified.

**Aspiration hazard** Not classified.

**Chronic effects** May be harmful if absorbed through skin. Prolonged inhalation may be harmful. Prolonged or repeated exposure may cause liver and kidney damage. These effects have not been observed in humans.

## Section 12 - Ecological Information

**Ecotoxicity** The product contains a substance which is toxic to aquatic organisms and which may cause long-term adverse effects in the aquatic environment.

**Persistence and degradability** No data is available on the degradability of this product.

**Bioaccumulative potential** No data available.

### Partition coefficient n-octanol / water log (Kow)

Components	Results
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)	0.56

**Mobility in soil** No data available.



# SAFETY DATA SHEET

Conforms to OSHA HazCom 2012 Standard

**Mobility in general**  
**Other adverse effects**

No data available.  
No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.

## Section 13 - Disposal considerations

**Disposal instructions**  
**Local disposal regulations**  
**Hazardous waste code**

Dispose in accordance with applicable federal, state, and local regulations.  
Dispose of in accordance with local regulations.  
Waste codes should be assigned by the user based on the application for which the product was used.

**Waste from residues / unused products**  
**Contaminated packaging**

Dispose in accordance with all applicable regulations.  
Since emptied containers may retain product residue, follow label warnings even after container is emptied.

## Section 14 - Transport information

**DOT**

**UN number** UN1824  
**UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**Transport hazard class(es)** 8  
**Packing group** II  
**Special precautions for users** Read safety instructions, SDS and emergency procedures before handling.  
**Special provisions** B2, IB2, N34, T7, TP2  
**Packaging exemption** 154  
**Packaging non bulk** 202  
**Packaging bulk** 242

**IATA**

**UN number** UN1824  
**UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**Transport hazard class(es)** 8  
**Packaging group** II  
**Environmental hazards** No.  
**ERG Code** 8L  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.

**IMDG**

**UN number** UN1824  
**UN proper shipping name** SODIUM HYDROXIDE SOLUTION  
**Transport hazard class(es)** 8  
**Packaging group** II  
**Environmental hazards** No.  
**Marine pollutant**  
**EmS** F-A, S-B  
**Special precautions for user** Read safety instructions, SDS and emergency procedures before handling.  
**Transportation in bulk according to Annex II of MARPOL 73/78 and IBC Code** This substance/mixture is not intended to be transported in bulk.

## Section 15 - Regulatory Information

**US federal regulations**  
**TSCA Section 12(b) Export Notification (40 CFR707, Subpt. D)**  
**US. OSHA Specifically Regulated Substances (29 CFR 1910.1001-CERCLA Hazardous Substance List (40 CFR 302.4)**

This product is a "Hazardous Chemical" as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.  
All components are on the U.S. EPA TSCA Inventory List.  
Not regulated.  
Not listed.  
Components  
Sodium Hydroxide (CAS 1310-73-2)

Result  
LISTED



# SAFETY DATA SHEET

Conforms to OSHA HazCom 2012 Standard

2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)

LISTED

## Superfund Amendments and Reauthorization Act of 1986 (SARA)

<b>Hazard</b>	Immediate Hazard	Yes
<b>Categories</b>	Delayed Hazard	No
	Fire Hazard	No
	Pressure Hazard	No
	Reactivity Hazard	No

**SARA 302 Extremely hazardous substance** No

**SARA 311/312 Hazardous chemical** No

### SARA 313 (TRI reporting)

Chemical name	CAS #	% by wt.
2-(2-Butoxyethoxy) Ethanol	112-34-5	1 - 5

## Other federal regulations

Components  
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)

### Clean Air Act (CAA) Section 112 Hazardous Air Pollutants

Clean Air Act (CAA) Section 112(r) Accidental Release Prevention (40 CFR 68.130) Not regulated.

Safe Drinking Water Act (SDWA) Not regulated.

Food and Drug Administration (FDA) Not regulated.

## US state regulations

**US.Massachusetts RTK - Substance List** Components  
Sodium Hydroxide (CAS 1310-73-2)  
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)

**US.New Jersey Worker and Community Right-to-Know Act** Components  
Sodium Hydroxide (CAS 1310-73-2)  
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)

**US.Pennsylvania RTK - Hazardous Substances** Components  
Sodium Hydroxide (CAS 1310-73-2)  
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)

**US.Rhode Island RTK** Components  
Sodium Hydroxide (CAS 1310-73-2)  
2-(2-Butoxyethoxy) Ethanol (CAS 112-34-5)

**US - California Proposition 65** California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): This material is not known to contain any chemicals currently listed as carcinogens or reproductive toxins.

## International Inventories

Country(s) or region	Inventory Name	On Inventory (yes/no)*
Australia	Australian Inventory of Chemical Substances (AICS)	Yes
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	No
China	Inventory of Existing Chemical Substances in China (IECSC)	Yes
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	No
Korea	Existing Chemicals List (ECL)	Yes
New Zealand	New Zealand Inventory	Yes
Philippines	Philippine Inventory of Chemicals and Chemical Substances	Yes

# SAFETY DATA SHEET

Conforms to OSHA HazCom 2012 Standard

Unites States Toxic Substances Control Act (TSCA) Inventory Yes  
Puerto Rico

\*A "Yes" indicates this product complies with the inventory requirements administered by the governing country(s).

\*A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

## Section 16 - Other information, including date of preparation or last version

Issue date 10/15/2014

Version # 01

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