Twin Pro Industrial
Material Safety Data Sheet

1.) IDENTIFICATION:

Product Name:	**Pro Degreaser**
Other Means of Identification:	None
Product Use and restrictions on use:	Heavy Duty Industrial Caustic Degreaser
Initial Supplier Identifier:	Twin Industrial Holdings Ltd. O/A Twin Pro Industrial 3203 Giffen Road North Lethbridge, AB T1H 0E8 403-329-4878
Prepared by	Twin Pro Industrial
Emergency Phone	CANUTEC at 1-613-996-6666

2.) HAZARDS IDENTIFICATION

GHS-Classification

Skin Corrosion/Irritation	Category 2
Serious Eye Damage/ Irritation	Category 2A
Acute toxicity/Inhalation	Category 5

Physical Hazards

May be corrosive to metals	Category 1

Signal Word
Danger

Hazards Statement
H290 – May be corrosive to metals
H319 – Causes serious eye irritation
H333 – May be harmful if inhaled

Pictograms

Precautionary Statements
P261 - Avoid breathing mist/vapors/spray
P264 - Wash skin thoroughly after handling
P270 - Do not eat, drink or smoke when using this product
P271 - Use only outdoors or in a well-ventilated area
P280 - Wear Protective gloves/eye protection/face protection
P302 + P352 - IF ON SKIN: Wash with plenty of soap and water.
P305 + P351 + P338 - IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue Rinsing.
P304 + P340 - IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
P312 - Call a POISON CENTER or doctor/physician if you feel unwell.
P301 + P312 + P330 - IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Rinse mouth.
P362 - Take off contaminated clothing and wash before reuse.
P403 + P235 - Store in a well-ventilated place. Keep cool.
P501 – Dispose of contents/container in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

3.) COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	Cas Number	Weight %	Unique Identifiers
Sodium Hydroxide	1310-73-2	5 – 15%	Not Available
2-Butozy ethanol	111-76-2	5 – 15%	Not Available

4.) FIRST AID MEASURES

Inhalation: If symptoms are experienced, remove source of contamination or move victim to fresh air. Seek immediate medical attention.

Skin Contact: Avoid direct contact. Remove contaminated clothing. Rinse skin with lukewarm, gently flowing water for at least 30 minutes. Seek medical attention if irritation occurs or persists. Complete decontaminate clothing, shoes, and leather goods before re-use or discard.

Eye Contact: Contact lenses should never be worn when working with this product. Flush immediately with water for at least 20 minutes. Forcibly hold eyelids apart to ensure complete irrigation of eye tissue. Seek immediate medical attention.

Ingestion: Never give anything by mouth if victim is rapidly losing consciousness, is unconscious or convulsing. Have victim rinse mouth thoroughly with water. Do NOT induce vomiting. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Have victim rinse mouth with water again. Seek medical attention.

5.) FIRE – FIGHTING MEASURES

Suitable Extinguishing Media Product does not burn. Use an extinguishing media appropriate for surrounding fire.

Unsuitable extinguishing Media Carbon dioxide

Specific Hazards arising from The hazardous product Closed containers may rupture violently when heated.

Special Protective Equipment For Fire-Fighters Sodium hydroxide solutions are very corrosive and at high temperatures, decomposition occurs giving off strong, corrosive fumes of sodium oxide. Do not enter without wearing specialized equipment suitable for the situation. Chemical protective clothing and positive pressure self-contained breathing apparatus may be necessary.

Further Information: Not Available

6.) ACCIDENTAL RELEASE MEASURES

Personal Precautions/ Protective Equipment/ Emergency Procedures Wear appropriate personal protective equipment. Ventilate area. Only enter with PPE. Stop or reduce leak if safe to do so. Prevent material from entering sewers. Flush with water to remove any residue.

Methods and Material for Containment and Cleaning up Stop or reduce leak if safe to do so. Contain spill or leak. Do not allow entry into sewers or waterways. Solutions should be contained by diking with inert material, such as sand or earth. Solutions can be recovered or carefully diluted with water and cautiously neutralized with acids such as acetic acid or hydrochloric acids. Large Spills: contact fire and emergency services and supplier for advice.

7.) HANDLING AND STORAGE

Precautions for Safe Handling: Use proper equipment for lifting and transporting all containers. Use sensible industrial hygiene and housekeeping practices. Wash thoroughly after handling. Avoid all situations that could lead to harmful exposure.

Conditions for Safe Storage: Store in a cool, dry, well-ventilated place. Keep container tightly closed.

8.) EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Limit(s)

Component	Regulation	Type of Listing	Value
Sodium Hydroxide	ACGIH	TLV-C	2mg/m^3
	OSHA	PEL-T-TWA	2mg/m^3
2-Butoxy ethanol	ACGIH	TWA	20 ppm
	NIOSH REL	TWA	5 ppm 24 mg/m_3
	OSHA Z-1	TWA	50 ppm 240 mg/m_3
	OSHA P0	TWA	25 ppm

Engineering Control(s) Mechanical ventilation (dilution or local exhaust), process or personnel enclosure and control of process conditions must be provided in accordance with all fire codes and regulatory requirements. Supply sufficient replacement air to make up for air removed by exhaust systems.

Other: Emergency shower and eyewash must be available and tested in accordance with regulations and be in close proximity.

Protective Equipment

Eyes/Face Chemical goggles, full-face shield, or a full-face respirator is recommended to be worn at all times when product is handled. Contact lenses should not be worn; they may contribute to severe eye injury.

Hand Protection Impervious gloves of chemically resistant material (rubber or PVC) should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse.

Skin and Body Protection Body suit, aprons, and/or coveralls of chemical resistant material should be worn at all times. Wash contaminated clothing and dry thoroughly before reuse. Impervious boots of chemically resistant material should be worn at all times. No special footwear is required other than what is mandated at place of work.

Respiratory Protection NIOSH Recommendations for sodium hydroxide concentrations in air (3):
Up to 10 mg/m3:
(APF = 25) Any supplied-air respirator operated in a continuous-flow mode. Any powered Air-purifying respirator with a high-efficiency particulate filter.
(APF = 50) Any air-purifying, full-face piece respirator with an N100, R100, or P100 filter. Any self contained breathing apparatus with a full face piece. Any supplied-air respirator with a full face piece.

Thermal Hazards Not Available

9.) PHYSICAL AND CHEMICAL PROPERTIES

Appearance

Physical State	Liquid
Color	Red
Odor	Pungent
Odor Threshold	Not Available

Property

pH	11

Melting Point/Freezing Point	Not Available
Flash Point	Not Applicable
Evaporation Rate	Not Available
Flammability	Non-Flammable
Upper Flammable Limit	Not Applicable
Lower Flammable Limit	Not Applicable
Vapor Pressure (mm Hg, 20ºC)	Not Available
Vapor Density (Air=1)	Not Available
Relative Density	Not Available
Solubility (ies)	Completely
Partition Coefficient: n-octanol/water	Not Available
Auto-ignition Temperature	Not Applicable
Decomposition Temperature	Not Available
Viscosity	Not Available

10.) STABILITY AND REACTIVITY

Reactivity	Sodium hydroxide can react with metals, such as aluminum, tin and zinc to form flammable hydrogen gas.
Stability	Normally stable
Possibility of Hazardous Reactions	Polymerization will not occur.
Conditions to Avoid	Excess heat, incompatible materials
Incompatible Materials	Sodium hydroxide reacts vigorously, violently or explosively with many organic and inorganic chemicals, such as strong acids, acid chlorides, acid anhydrides, ketones, glycols and organic peroxides.
Hazardous decomposition products	Sodium oxide fumes may be generated by thermal decomposition at high temperatures.

11.) TOXICOLOGICAL PROPERTIES

Acute Toxicity

Component	Oral LD_{50}	Dermal LD_{50}	LC_{50}
Sodium Hydroxide (50%)	280 – 680 mg/kg (rat)	2700 mg/kg (rabbit)	Not Available
2-Butoxy ethanol	745 mg/kg (rat)	1250 mg/kg (rabbit)	550 ppm 4hr (rat)

Chronic Toxicity – Carcinogenicity

Component	IARC
Sodium Hydroxide	Not considered to be a carcinogenic by ACGIH and IARC
2-Butoxy ethanol	Not classifiable as a human carcinogen

Skin Corrosion/Irritation	Irritating to skin
Ingestion	Ingestion can result in burs to the lips, tongue, throat, esophagus and stomach; abdominal pain; nausea; vomiting; diarrhea
Inhalation	Inhalation is only likely to occur if an aerosol is formed as sodium hydroxide does not readily form a vapor. Exposure to aerosol may lead to irritation of respiratory tract, inflammation of lungs, difficulty breathing. May cause pulmonary edema.

Serious Eye Damage/Irritation Corrosive, severe irritant.

Respiratory or Skin Sensitization Not known to be a skin sensitizer
Germ Cell Mutagenicity Not known to be mutagen.
Reproductive Toxicity Not known to cause reproductive toxicity.
STOT – Single Exposure Breathing may result in respiratory irritation**.**
STOT – Repeated exposure Not Applicable.
Aspiration Hazard Not Available
Synergistic Materials Not Available

12.) ECOLOGICAL INFORMATION

Exotoxicity

Component	Toxicity to Algae	Toxicity to Fish	Toxicity to Daphnia and Other Aquatic Invertebrates
Sodium Hydroxide	Not Available	LC_{50}(Gambusia affinis, 96hr): 125mg/L	EC_{50}(ceriodaphnia dubia 48hr): 40.38mg/L
2-Butoxy ethanol	Not Availalbe	LC_{50} (oncorhynchus mykiss [rainbow trout] 96hr): 1474mg/L	EC_{50} (Daphnia magna[Water flea] 48 hr): 1800 mg/L

Biodegradability Not Available
Bioaccumulation Does not bioaccumulate
Mobility Very mobile in soil and very soluble in water.
Other Adverse Effects Toxic to aquatic life through an immediate raise in pH to toxic levels

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13.) DISPOSAL CONSIDERATIONS

Waste From Residues/ Unused Product: Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act.

Contaminated Packaging: Dispose in accordance with all federal, provincial, and/or local regulations including the Canadian Environmental Protection Act

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14.) TRANSPORT INFORMATION

UN Number UN 1824
UN Proper Shipping Name Sodium Hydroxide Solution
Transport Hazard Class(es) 8
Packaging Group II
Environmental Hazards Not listed as a marine pollutant under Canadian TDG Regulations Schedule 1, Column 10
Special Precautions Not Available
Transport in Bulk Not Available

TDG
Other: Secure containers (full and/or empty) with suitable hold down devices during shipment and ensure all caps, valves, or closures are secured in the closed position.

15.) REGULATORY INFORMATION

Note: The product listed on this SDS has been classified in accordance with the hazard criteria of the controlled products Regulations. This SDS contains all the information required by those regulations.

16.) PREPARATION AND OTHER INFORMATION

Preparation Date: Feb 2, 2017
Revised Date: Feb 2, 2017

USE THIS NUMBER IN CASE OF DANGEROUS GOODS EMERGENCY:
CANUTEC (613) 996-6666

Note: The responsibility to provide a safe workplace remains with the user. The user should consider the health hazards and safety information contained herein as a guide and should take those precautions required in an individual operation to instruct employees and develop work practice procedures for a safe work environment. The information contained herein is, to the best of our knowledge and belief, accurate. However, since the conditions of handling and use are beyond our control, we make no guarantee of results, and assume no liability for damages incurred by the use of this material. It is the responsibility of the user to comply with all applicable laws and regulations.

Attention: Receiver of the chemical goods / SDS coordinator
Twin Industrial Holdings Ltd. and its associated companies require, as a condition of sale, that you forward the attached Safety Data Sheets(s) to all affected employees, customers and end –users.