





# Material Safety Data Sheet

This MSDS is prepared in accordance with OSHA 29 CFR 1910.1200

	WHMIS Class D-2: Material causing other toxic effects.	HCS Class: Irritating substance.
WHMIS (Pictograms)	WHMIS (Classification)	HCS

## Section 1. Chemical Product and Company Identification

<b>Product Name/ Trade name</b>	<b>Pro S</b>	<b>Code</b>	<b>489</b>
<b>Synonym</b>	Laundry Pre Wash	<b>Version Number</b>	1.00
<b>Chemical Family</b>	Not available.	<b>Validation Date</b>	10/19/2010
<b>Chemical Formula</b>	Not applicable.	<b>Print Date</b>	10/19/2010
<b>Manufacturer/ Supplier</b>	Betco Corporation 1001 Brown Avenue Toledo, Ohio 43607 (800) 333-2156	<b>In Case of Emergency</b>	Manufacturer 24 Hour Emergency Number CHEMTREC (800) 424-9300
<b>TSCA</b>	TSCA Inventory: All components listed or are exempt from listing.		
<b>DSL/ NDSL</b>	All components listed unless noted elsewhere on this MSDS		
		<b>Protective Clothing</b> 	

## Section 2. Composition and Information on Ingredients

Name	CAS #	% by Weight	Exposure Limits	LC <sub>50</sub> /LD <sub>50</sub>
Alcohol Alkoxylate	68439-46-3	10 - 15	Not available.	Not available.
Low Odor Base Solvent	64742-47-8	1 - 5	TWA: 100 ppm <b>OSHA (United States).</b>	Not available.
Ammonium Hydroxide	1336-21-6	1 - 5	Not available.	Not available.
Orange Terpenes	68917-57-7	1 - 5	Not available.	Not available.
Propylene Glycol NButyl Ether	5131-66-8	1 - 5	Not available.	ORAL (LD50): Acute: 3200 mg/kg [Rat]. DERMAL (LD50): Acute: >2000 mg/kg [Rabbit].
Block Copolymer Surfactant	Prop	1 - 5	Not available.	Not available.
2-Butoxyethanol	111-76-2	1 - 5	<b>ACGIH (United States).</b> TWA: 20 ppm <b>OSHA (United States).</b> TWA: 50 ppm	ORAL (LD50): Acute: 1746 mg/kg [Rat].

## Section 3. Hazards Identification

<b>Potential Acute Health Effects</b>	Very hazardous in case of skin contact (irritant), of eye contact (irritant). Hazardous in case of skin contact of eye contact. Hazardous in case of ingestion. Liquid or spray mist may produce tissue damage particularly on mucous membranes of eyes, mouth and respiratory tract. Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Inflammation of the eye is characterized by redness, watering, and itching. Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.
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<b>Potential Chronic Health Effects</b>	<p><b>CARCINOGENIC EFFECTS</b> Classified A3 (Proven for animal.) by ACGIH [2-Butoxyethanol].</p> <p><b>MUTAGENIC EFFECTS</b> Not available.</p> <p><b>TERATOGENIC EFFECTS</b> Not available.</p> <p><b>DEVELOPMENTAL TOXICITY</b> Not available.</p> <p>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. Repeated or prolonged exposure to the substance can produce blood disorders. Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. *Information is based on animal data, relevance to humans has yet to be determined.</p>
<b>Carcinogenic Effects</b>	Classified A3 (Proven for animal.) by ACGIH [2-Butoxyethanol].

#### **Section 4. First Aid Measures**

<b>Eye Contact</b>	Check for and remove any contact lenses. In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Cold water may be used. Get medical attention immediately.
<b>Skin Contact</b>	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Cover the irritated skin with an emollient. Cold water may be used. Wash clothing before reuse. Thoroughly clean shoes before reuse. Get medical attention immediately.
<b>Inhalation</b>	Move person to fresh air. If person is not breathing, call 911 or an ambulance, then give artificial respiration., preferably mouth to mouth if possible. Call a poison control center or doctor for further treatment advice.
<b>Ingestion</b>	Do NOT induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If large quantities of this material are swallowed, call a physician immediately. Loosen tight clothing such as a collar, tie, belt or waistband.

#### **Section 5. Fire Fighting Measures**

<b>Products of Combustion</b>	These products are nitrogen oxides (NO, NO <sub>2</sub> ...).
<b>Fire Fighting Media and Instructions</b>	Not applicable.
<b>Special Remarks on Fire Hazards</b>	Not available.
<b>Special Remarks on Explosion Hazards</b>	Not available.

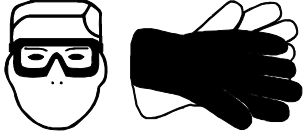
#### **Section 6. Accidental Release Measures**

<b>Small Spill and Leak</b>	Dilute with water and mop up, or absorb with an inert dry material and place in an appropriate waste disposal container. Finish cleaning by spreading water on the contaminated surface and dispose of according to local and regional authority requirements.
<b>Large Spill and Leak</b>	Stop leak if without risk. Absorb with DRY earth, sand or other non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Prevent entry into sewers, basements or confined areas; dike if needed. Call for assistance on disposal. Finish cleaning by spreading water on the contaminated surface and allow to evacuate through the sanitary system.
<b>Personal Protection in Case of a Large Spill</b>	Splash goggles. Full suit. Vapor respirator. Boots. Gloves. A self-contained breathing apparatus should be used to avoid inhalation of the product. Suggested protective clothing might not be sufficient; consult a specialist BEFORE handling this product.

## Section 7. Handling and Storage

<b>Precautions</b>	Keep locked up. Keep container dry. Do not ingest. Do not breathe gas/fumes/ vapor/spray. Never add water to this product. In case of insufficient ventilation, wear suitable respiratory equipment. If ingested, seek medical advice immediately and show the container or the label. Avoid contact with skin and eyes. Keep away from incompatibles such as oxidizing agents, reducing agents, metals.
<b>Incompatibility</b>	Highly reactive with oxidizing agents, reducing agents, metals.
<b>Storage</b>	Keep container tightly closed. Keep container in a cool, well-ventilated area. S2- Keep out of the reach of children.

## Section 8. Exposure Controls/Personal Protection

<b>Engineering Controls</b>	Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapors below their respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to the work-station location.
<b>Personal Protection</b>	
<i>Eyes</i>	Splash goggles.
<i>Body</i>	No special protective clothing is required.
<i>Respiratory</i>	A respirator is not needed under normal and intended conditions of product use. Wear appropriate respirator when ventilation is inadequate.
<i>Hands</i>	Gloves.
<b>Protective Clothing (Pictograms)</b>	
<b>Exposure Limits</b>	See Section 2 For Applicable Exposure Limits

## Section 9. Physical and Chemical Properties

<b>Physical State and Appearance</b>	Liquid.	<b>Odor</b>	Ammoniacal.
<b>Molecular Weight</b>	Not applicable.	<b>Taste</b>	
<b>pH</b>	10.5; 11.5	<b>Color</b>	Colorless.
<b>Boiling/Condensation Point</b>	The lowest known value is 100°C (212°F) (Water). Weighted average: 102.85°C (217.1°F)		
<b>Melting/Freezing Point</b>	May start to solidify at 0°C (32°F) based on data for: Water.		
<b>Critical Temperature</b>	Not available.		
<b>Instability Temperature</b>	Not available.		
<b>Specific Gravity</b>	0.9872 (Water = 1)		
<b>Vapor Pressure</b>	Not available.		
<b>Vapor Density</b>	Not available.		
<b>Volatility</b>	Not available.		
<b>VOC</b>	< 5% By Weight		
<b>Evaporation Rate</b>	<1 compared to Butyl acetate.		
<b>Dispersion Properties</b>	See solubility in water, methanol, acetone.		

<b>Solubility</b>	Easily soluble in methanol, acetone. Soluble in cold water, hot water.
<b>The Product is:</b>	Non-flammable.
<b>Auto-ignition Temperature</b>	Not applicable.
<b>Flash Points</b>	Not applicable.
<b>Flammable Limits</b>	Not applicable.
<b>Fire Hazards in Presence of Various Substances</b>	Not applicable.
<b>Explosion Hazards in Presence of Various Substances</b>	Not available.

### Section 10. Stability and Reactivity Data

<b>Stability</b>	
<b>Incompatibility with Various Substances</b>	Highly reactive with oxidizing agents, reducing agents, metals.
<b>Hazardous Decomposition Products</b>	

### Section 11. Toxicological Information

<b>Routes of Entry</b>	Dermal contact. Eye contact. Inhalation. Ingestion.
<b>Toxicity to Animals</b>	Acute oral toxicity (LD50): 1746 mg/kg [Rat]. (2-Butoxyethanol). Acute dermal toxicity (LD50): >2000 mg/kg [Rabbit]. (aliphatic propylene glycol ethers). Acute toxicity of the gas (LC50): 700 ppm 7 hour(s) [Mouse]. (2-Butoxyethanol).
<b>Acute Effects on Humans</b>	<p><i>Eyes</i> Very hazardous in case of eye contact (irritant). Inflammation of the eye is characterized by redness, watering, and itching.</p> <hr/> <p><i>Skin</i> Very hazardous in case of skin contact (irritant). Skin inflammation is characterized by itching, scaling, reddening, or, occasionally, blistering.</p> <hr/> <p><i>Inhalation</i> Inhalation of the spray mist may produce severe irritation of respiratory tract, characterized by coughing, choking, or shortness of breath. Over-exposure by inhalation may cause respiratory irritation.</p> <hr/> <p><i>Ingestion</i> Harmful if swallowed.</p>
<b>Chronic Effects on Humans</b>	<p><b>CARCINOGENIC EFFECTS</b> Classified A3 (Proven for animal.) by ACGIH [2-Butoxyethanol].</p> <p><b>MUTAGENIC EFFECTS</b> Not available.</p> <p><b>TERATOGENIC EFFECTS</b> Not available.</p> <p><b>DEVELOPMENTAL TOXICITY</b> Not available.</p> <p>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. Repeated or prolonged exposure to the substance can produce blood disorders. Repeated or prolonged exposure to the substance can produce kidney damage. Repeated or prolonged exposure to the substance can produce liver damage. *Information is based on animal data, relevance to humans has yet to be determined.</p>
<b>Special Remarks on Toxicity to Animals</b>	Not available.
<b>Special Remarks on Chronic Effects on Humans</b>	Not available.

## Section 12. Ecological Information

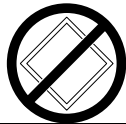
Ecotoxicity	Not available.
BOD5 and COD	Not available.
Products of Biodegradation	These products are nitrogen oxides (NO, NO <sub>2</sub> ...).
Toxicity of the Products of Biodegradation	Not available.
Special Remarks on the Products of Biodegradation	Not available.

## Section 13. Disposal Considerations

Waste Information	Waste must be disposed of in accordance with federal, state and local environmental control regulations.
Waste Stream	Not available.

## Section 14. Transport Information

DOT (U.S.A)  
(Pictograms)



TDG Classification Not a TDG controlled material.



PIN UN, Proper Shipping Name, PG Not applicable.

Maritime Transportation Not available.

Special Provisions for Transport Not available.

## Section 15. Other Regulatory Information and Pictograms

WHMIS (Classification) WHMIS Class D-2: Material causing other toxic effects.



Regulatory Lists No products were found.

Other Regulations OSHA: Hazardous by definition of Hazard Communication Standard (29 CFR 1910.1200).

Other Classifications HCS (U.S.A.) HCS Class: Irritating substance.

USA Regulatory Lists

SARA 311/312 MSDS distribution - chemical inventory - hazard identification: aliphatic propylene glycol ethers: Fire hazard, Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard; 2-Butoxyethanol: Immediate (Acute) Health Hazard, Delayed (Chronic) Health Hazard  
SARA 313 toxic chemical notification and release reporting:  
2-Butoxyethanol 3%

DSD (EEC)

This product is not classified according to the EU regulations.

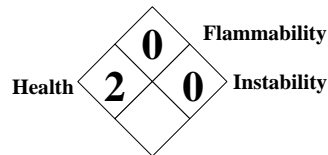
International Regulations Lists

No products were found.

**Hazardous Material Information System (U.S.A.)**

Health	*	2
Flammability		0
Physical Hazard		0

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



The Hazard Ranking systems presented on this MSDS provide only a quick reference for hazard information. The ENTIRE MSDS must be consulted to determine any specific hazards, First Aid measures, and PPE associated with this product.

**Section 16. Other Information**

Validated by CRushton on 10/19/2010.

Verified by CRushton.

Printed 10/19/2010.

**Information Contact Betco Corporation**  
1001 Brown Avenue  
Toledo, Ohio 43607

Notice to Reader:

*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.*

Validated on 10/19/2010.

**Experimental Bet-Spot S**

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