



Procter & Gamble
 Fabric & Home Care Division
 Ivorydale Technical Center
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MATERIAL SAFETY DATA SHEET

MSDS #: **FH/H/2004/TNTE-632GZN-HE** Issue Date: **9/01/04**
FH/H/2004/TNTE-63BQUV-HE
 Supersedes: **FH/H/2002/TATJ-52VQNT** Issue Date: **5/13/02**

Identity: Granular Laundry Detergent			
Brands: TIDE HIGH EFFICIENCY			
Hazard Rating:	Health: 1	4= EXTREME	
	Flammability: 0	3= HIGH	
	Reactivity: 0	2= MODERATE	
		1= SLIGHT	
Emergency Telephone Number: 1-800-879-8433 or call Local Poison Control Center			

Ingredients/Chemical Name: Biodegradable surfactants and enzymes.					
Hazardous Ingredients as defined by OSHA, 29 CFR 1910.1200., and/or WHMIS under the HPA:					
<u>Chemical Name</u>	<u>Common Name</u>	<u>CAS No.</u>	<u>Recommended Limits</u>	<u>Composition Range</u>	<u>LD50 and/or LC50</u>
Sodium Carbonate	Soda ash	497-19-8	N/K	15 - 40%	1.9 g/kg (Rats, Oral)
Subtilisin*	Proteolytic Enzyme	9014-01-1	NIOSH/ACGIH STEL 0.00006 mg/m ³	< 0.1%	> 5 g/kg (Rats, Oral)
Linear Alkyl Benzene Sulfonic Acid, Sodium Salt	Sodium Alkyl Benzene Sulfonate	68081-81-2	N/K	3 - 7%	0.7 - 1.3 g/kg (Rats, Oral)
Alkyl Sulfate, Sodium Salt	Sodium Alkyl Sulfate	68081-98-1 & Proprietary	N/K	5 - 10%	1.3 - 2.1 g/kg (Rats, Oral)
<p>Under normal consumer use, this product would not constitute a hazardous product under US OSHA Hazard Communication. With increased exposure (compared with consumer use) this mixture, when tested as a whole, is considered an inhalation hazard (enzymes) and an eye irritant within the meaning of the OSHA Hazard Communication Standard.</p> <p>*Subtilisin is listed on Table Z-1-A (1989 Air Contaminants Rule - 29 CFR 1910.1000). Though Table Z-1-A was revoked on 6/30/93, the following U.S. states continue to enforce Table Z-1-A limits: Alaska, Connecticut, Minnesota, Michigan, New York, Tennessee, Vermont, and Washington. The OSHA STEL (as listed on Table Z-1-A) is 0.00006 mg/m³.</p>					

Health Hazards (Acute and Chronic):

Ingestion: May cause transient gastrointestinal irritation.
 Eye Contact: Contact may cause mild, transient irritation.
 Skin: None.
 Inhalation: Heavy exposure to dust may cause transient respiratory tract irritation. Prolonged heavy exposure to dust may cause respiratory sensitization.

Signs and Symptoms of Exposure:

Ingestion: Possible mild gastrointestinal irritation with nausea, vomiting, and/or diarrhea.
 Eye Contact: Eye contact with the product or its aqueous solution may produce transient superficial irritation.
 Skin: None.
 Inhalation: Heavy exposure to dust may cause transient respiratory tract irritation.

Emergency and First Aid Procedures:

Ingestion: Give milk or water.
 Eye Contact: Flush eyes with water for 15 minutes.
 Skin: Rinse exposed area with water.
 Inhalation: Leave dusty area. In rare cases a respiratory reaction can occur which may include tightness of chest and difficulty breathing. If this occurs, seek medical attention immediately.

Other: Consumer product packages have a caution statement:

US & CANADA:

Front Panel: "CAUTION: EYE IRRITANT. MAY BE HARMFUL IF SWALLOWED. See Caution on side panel."

Side Panel: "CAUTION: MAY IRRITATE EYES. Do not get in eyes. KEEP OUT OF REACH OF CHILDREN. MAY BE HARMFUL IF SWALLOWED. FIRST AID TREATMENT: Contains biodegradable anionic surfactants and enzymes. If swallowed, give a glassful of water or milk and call a Poison Control Center or doctor immediately. Do not induce vomiting. If in eyes, rinse them well with water for 15 minutes."

Flash Point: N/A

Explosive Limits: LEL: N/A

Method Used: N/A

UEL: N/A

Extinguishing Media: CO₂, water, or dry chemical may be used. Firefighters should be equipped with self-contained breathing apparatus to protect against potentially irritating or sensitizing fumes.

Special Fire Fighting Procedures: None.

Unusual Fire Hazards: None known.

Stability Unstable:

Conditions to Avoid: Open flame.

Stable:

Incompatibility (Materials to Avoid): None known.

Hazardous Decomposition/By Products: None known.

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Hazardous Polymerization: *May Occur:* *Conditions to Avoid:* Open flame.
Will Not Occur:

Personal Precautions: Minimize dust levels while collecting product (see "Inhalation" health effects). Prevent exposure to dust with NIOSH approved respirators with HEPA filters. Use gloves to minimize skin contact.

Environmental Precautions: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. Small (household) solutions may be disposed of in sewer. Dry product may be landfilled if permitted by local regulations. Discard empty container in trash. Waste water containing product may be sewerred in compliance with all federal and state/provincial regulations, and local ordinances.

Steps To Be Taken in Case Material is Released or Spilled: Review Personal Precautions, FIRE FIGHTING MEASURES, HANDLING AND STORAGE, and EXPOSURE CONTROL, PERSONAL PROTECTION sections before proceeding with clean-up. Use appropriate personal protective equipment during clean-up. Spilled material may be a slip hazard.

For Dry Spills, collect material in an approved container while minimizing dust generation. Vacuum, as appropriate, remaining dust on floor. Recycle or dispose of product, as necessary, in accordance with regulations and other requirements in this section.

Flush small (household) quantities down acceptable sanitary/process sewer. Wipe up small spills with a damp cloth. Dispose of according to local regulations.

Precautions To Be Taken in Handling and Storing: Avoid skin contact and breathing product dust. Store in a cool, dry place. Keep product dry to maintain free-flowing granules.

Other Precautions: None.

This section only applies to the product when used in an industrial setting.

Respiratory Protection (Specify Type): Industrial use may require a NIOSH approved respirator with HEPA filters.

Ventilation: *Local Exhaust:* Industrial use may require LEV.

Special: None.

Mechanical (General): General dilution ventilation is adequate.

Other: None.

Eye Protection: If a splash of product in solution is likely, chemical goggles may be needed.

Protective Gloves: Protective gloves (rubber, neoprene) should be used for any prolonged direct contact.

Other Protective Equipment: Protective disposable suits may be required under heavy industrial dust conditions.

Boiling Point (°F): N/A	Specific Gravity (H₂O=1): N/A
Vapor Pressure (mm Hg): N/A	Percent Volatile by Volume (%): N/A
Vapor Density (Air=1): N/A	Evaporation Rate (nBuOAc=1): N/A
Odor Threshold: N/A	Freezing Point: N/A
Coefficient of Water/Oil Distribution: N/A	pH (1% solution): ~10-11
Viscosity: N/A	Reserve Alkalinity: ~5-7 (to pH 9.5)
Scooped Density: ~625 g/L	Solubility in Water: Mostly soluble at 20°C.
Appearance and Odor: White powder. Product is perfumed.	Physical State: Solid granules at 20°C.

Possible Hazardous Reactions/Conditions: None known.
Conditions to Avoid: Open flame.
Materials to Avoid: None known.
Hazardous Decomposition Products: None known.
Other Recommendations: None.

LD50 (rats oral): 2.8 - 7.1 g/kg
ED50 approx. 15-119 mg/kg

No concerns at relevant environmental concentrations. This product contains an anionic surfactant that has an aquatic 96 hr LC50 of 0.92 ppm (<i>Pimephales promelas</i> , OECD 203 test). This is the lowest L/EC50 amongst fish, Daphnia and algae. This surfactant is rapidly biodegradable under aerobic and anaerobic conditions (protocols: OECD 301-B and ECETOC 1988, respectively). The levels of biodegradation in these standard test conditions are >70%. Its removal in municipal sewage treatment is expected to be >99% based on standard laboratory test methods. Environmental risk assessment confirms comfortable safety margins because of its high removal and fast biodegradability kinetics.
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Waste Disposal Method: DISPOSAL IS TO BE PERFORMED IN COMPLIANCE WITH ALL FEDERAL, STATE/PROVINCIAL AND LOCAL REGULATIONS. Dry product from consumer may be landfilled. Industrial dry product may be landfilled if permitted by local regulations or may be incinerated if landfill disposal is not allowed. Consumer may discard empty container in trash, or recycle where facilities exist. Industrial producer may discard empty, individual containers in trash. Multiple empty and/or damaged containers should be compacted and landfilled, in accordance with all applicable regulations, or incinerated. Consumer produced household solutions may be disposed of to sewer. Industrial waste water containing product may be sewerered if in compliance with all federal, and state/provincial regulations and local ordinances.

The finished product is non-hazardous under DOT.

All intentionally-present components are listed on the US TSCA Inventory.
This product is not subject to warning labeling under California Proposition 65.
No components are affected by Significant New Use Rules (SNURs) under TSCA §5.
All ingredients are CEPA approved for import to Canada by Procter & Gamble.
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and this MSDS contains all information required by the Controlled Products Regulations.
Sodium carbonate (497-19-8) is listed on the Canadian WHMIS Ingredient Disclosure List (IDL) as item number 1431, with a threshold of 1%.

****N/A. - Not Applicable******N/K. - Not Known**

The submission of this MSDS may be required by law, but this is not an assertion that the substance is hazardous when used in accordance with proper safety practices and normal handling procedures. Data supplied is for use only in connection with occupational safety and health.

The information contained herein has been compiled from sources considered by Procter & Gamble to be dependable and is accurate to the best of the Company's knowledge. The information relates to the specific material designated herein, and does not relate to the use in combination with any other material or any other process. Procter & Gamble assumed no responsibility for injury to the recipient or third persons, for any damage to any property resulting from misuse of the controlled product.