

# MATERIAL SAFETY DATA SHEET

## SECTION 1. PRODUCT/MANUFACTURER'S IDENTITY

**PRODUCT NAME:** DUAL  
**PRODUCT NUMBER:** NA  
**PRODUCT USE:** Deluxe dishwashing powder for automatic dishwashers  
**COMPANY:**  
P.B. GAST AND SONS CO., INC  
355 COTTAGE GROVE S.E.  
GRAND RAPIDS, MICHIGAN 49507  
**EMERGENCY PHONE:** 800-843-6174

**PRODUCT I.D. NUMBER (PIN):** 3262  
**WHMIS CLASS:** E; D2B  
**DOT HAZARD CLASS:** Corrosive Material  
**DOT SHIPPING NAME:**  
Corrosive Solid, Basic, Inorganic, N.O.S.  
(Sodium metasilicate)  
8, UN3262, PGIII

H.M.I.S.

<b>3</b>	<b>HEALTH</b>	<b>HAZARD RATING</b> 4 = Extreme 3 = High 2 = Moderate 1 = Slight 0 = Insignificant
<b>0</b>	<b>FIRE</b>	
<b>1</b>	<b>REACTIVITY</b>	
<b>C</b>	<b>MAXIMUM PERSONAL PROTECTION</b>	

A = Goggles B = Goggles & Gloves C = Goggles, Gloves & Apron

ABBREVIATION KEY: N.A. - Not Applicable N.E. = Not Established N.D. = Not Determined

## SECTION 2 - HAZARDOUS INGREDIENTS INFORMATION

HAZARDOUS CHEMICAL IDENTITY	CAS NO.	%	PEL	TLV	LD50	LC50
Silicic acid, Disodium salt	6834-92-0	15-40	N.E.	N.E.	5989mg/kg	N.D.
Sodium tripolyphosphate	7758-29-4	15-40	N.E.	N.E.	4100mg/kg	N.D.
Sodium carbonate	497-19-8	15-40	N.E.	N.E.	5.6g/kg	N.D.
Sodium metasilicate	6834-92-0	10-15	2mg/m <sup>3</sup>	2mg/m <sup>3</sup>	847mg/kg	N.D.

This mixture does not contain components which are subject to the reporting requirements of Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR, Part 372.

## SECTION 3 - PHYSICAL DATA

**Color:** White  
**Boiling Point:** N.A.  
**Vapor Pressure:** N.A.  
**pH:** N.A.  
**Odor:** Lemon  
**Freezing Point:** N.A.  
**Vapor Density (Air=1):** N.A.  
**1% pH:** 10.5 - 11.5  
**Physical State:** Solid  
**Water/Oil Distribution:** N.E.  
**Evaporation Rate (Water=1):** N.A.  
**Specific Gravity:** N.A.  
**Solubility in Water:** <30%  
**Odor Threshold:** N.E.  
**VOC Content:** 0.0%  
**Weight per Gallon:** N.A.

## SECTION 4 - FIRE AND EXPLOSION HAZARD DATA

**Flash Point and Method:** N.A.  
**Autoignition Temperature:** N.A.  
**Extinguishing Media:** Use dry chemical or CO2.  
**Flammable Limits:** N.A.  
**LEL:** N.A. **UEL:** N.A.  
**Special Fire Fighting Procedures:** None.  
**Hazardous Combustion Products:** N.A.  
**Unusual Fire and Explosion Hazards:** None.

## SECTION 5 - REACTIVITY DATA

**Chemical Stability:** Stable.  
**Hazardous decomposition of By-Products:** None known.  
**Incompatibility (Materials to Avoid):** None known.  
**Hazardous Polymerization:** Will not occur.

## SECTION 6 - TOXICOLOGICAL PROPERTIES

**Routes of Entry:** Ingestion. Inhalation. Eye contact. Skin contact.  
**Toxicologically Synergistic Products:** None known.  
**Sensitization:** No.  
**Medical Conditions Aggravated by Exposure:** None known.  
**EFFECTS OF OVEREXPOSURE (Acute and/or Chronic):**  
**Eyes:** May cause severe irritation, redness, burns and possible corneal injury.  
**Carcinogenic Effects:** NO carcinogenic effect.  
**Skin:** May cause severe irritation, redness, burns.  
**Mutagenic Effects:** NO mutagenic effect.  
**Ingestion:** May cause severe irritation or burning of gastrointestinal tract and possible mucosal injury.  
**Teratogenic Effects:** NO teratogenic effect.  
**Inhalation:** May irritate respiratory tract when used with inadequate ventilation.  
**Reproductive Toxicity:** NO reproductive toxicity effect.

## SECTION 7 - PREVENTATIVE AND CONTROL MEASURES

**Respiratory Protection:** Use NIOSH/OSHA approved dust mask.  
**Ventilation:** Local Exhaust: Acceptable Mechanical: Recommended  
**Protective Gloves:** Rubber/Neoprene.  
**Eye Protection:** Chemical goggles.  
**Protective Clothing and Equipment:** Full cover clothing - rubber apron.  
**Work and Hygienic Practices:** Avoid contact with eyes, skin and clothing.  
**Storage Requirements:** Store in cool, dry area. Follow good housekeeping practices.  
**Other Requirements:** Keep out of reach of children.

**Steps to be Taken if Material is Spilled or Released:** Collect and reuse if possible. Sweep up material and place into container for proper disposal (or) flush to sewer with large quantities of water if permitted by regulatory authorities.

**Waste Disposal:** Dispose of as permitted by all federal, provincial, state and local regulatory authorities.

## SECTION 8 - EMERGENCY FIRST AID PROCEDURES

### FIRST AID - NOTES TO PHYSICIAN:

**Eyes:** Flush with a large amount of water for 30 minutes holding eyelids open. Seek medical attention.  
**Skin:** Remove contaminated clothing and footwear. Flood/shower with water for 30 minutes.  
**Ingestion:** Rinse mouth with water. Give 2-3 large glasses of water. Do not induce vomiting. Seek medical attention.  
**Inhalation:** Remove to fresh air and rest. In all cases if symptoms persist, seek medical attention.  
**Note to Physician:** No additional information.

## SECTION 9 - PREPARATION INFORMATION

**Prepared By:** Regulatory Affairs Department **Phone:** 616-245-0574, 800-968-4278 **Date of Preparation:** 11/7/2008.