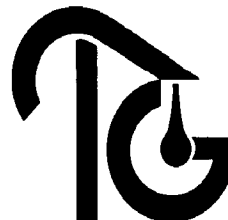


# TENNANTS DISTRIBUTION LIMITED

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## PRODUCT DATA SHEET

(This booklet incorporates the Specification and M.S.D.S.)

PRODUCT	BORAX PENTAHYDRATE		
CAS NO.	11130-12-4		
TARIFF NO.			
U.N NO.	N/R		
EINECS NO.	2155-404		
IMCO CLASS	N/R		
HAZARDS			
SPECIFICATION REFERENCE	BB08/3	DATE FEB 96	
REFERENCE NO.	BOPE 1	DATE FEB 96	
PREVIOUS EDITION.		DATE	

<b>PRODUCT SPECIFICATION</b>			
Product Name	Borax Pentahydrate		
Alternative Name	Disodium Tetraborate Pentahydrate		
Product Grade			
<b>PRODUCT SPECIFICATION TECHNICAL GRANULAR</b>			
<b>CHEMICAL SPECIFICATION</b>	<b>TYPICAL</b>	<b>GUARANTEED</b>	
		Min	Max
B <sub>2</sub> O <sub>3</sub>	48.5%	48.0%	49.0%
Na <sub>2</sub> O	21.6%	21.28%	21.8%
Insolubles in water mg/kg	100	80	150
<b>SIEVE SPECIFICATION</b>			
Cumulative retained			
120 microns	1.03%		3.0%
75 microns	2.50%		5.0%
<b>NOTES</b>			
<b>Exclusion of Liability</b>			
Information contained in this publication is accurate to the best of the knowledge and belief of Tennants.			
Any information or advice obtained from Tennants otherwise than by means of this publication and whether relating to Tennants materials or other materials, is also given in good faith. However, it remains at all times the responsibility of the customer to ensure that Tennants materials are suitable for the particular purpose intended.			
Tennants accepts no liability whatsoever (except as otherwise provided by law) arising out of the use of information supplied, the application, adaptation or processing of the products described herein, the use of other materials in lieu of Tennants materials or the use of Tennants materials in conjunction with such other materials.			
<b>Health and Safety</b>			
A Material Safety Data Sheet has been issued describing the health, safety and environmental properties of this product, identifying the potential hazards and giving advice on the handling precautions and emergency procedures. This must be consulted fully before handling, storage and use.			

**SAFETY DATA SHEET**

<b>1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND COMPANY</b>	
Product:	BORAX PENTAHYDRATE
COMPANY:	TENNANTS DISTRIBUTION LIMITED
	Hazelbottom Road Botany Way
	Cheetham Purfleet
	Manchester Essex
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	Fax No. 44(0)161 203 4298 Tel No. 44(0)1708 860074
	Emergency Tel No. 01865 407333
<b>2. COMPOSITION/INFORMATION ON INGREDIENTS</b>	
Chemical Formulae:	
Chemical Family Name:	
CAS No.:	11130-12-4
EINECS No.:	2155-404
<b>3. HAZARDS IDENTIFICATION</b>	
Main Hazards	None known
Health Effects - Eyes	None
Health Effects - Skin	None
Health Effects - Ingestion	None
Health Effects - Inhalation	None
<b>4. FIRST AID MEASURES</b>	
First Aid - Eyes	Wash with plenty of water
First Aid - Skin	Wash with plenty of water
First Aid - Ingestion:	Rinse mouth with water. If symptoms develop seek medical attention
First Aid - Inhalation	Remove to fresh air, keep warm and at rest. If irritation persists seek medical attention
<b>5. FIRE FIGHTING MEASURES</b>	
Extinguishing Media	Water, foam, CO2 or dry chemical
Hazards	None
Protection	Appropriate protective clothing
<b>6. ACCIDENTAL RELEASE MEASURES</b>	
Personal	Isolate the contaminated area and instruct others to keep away
Environmental	Contain and control the spillage on site
Spillage	Scoop up or vacuum material and place in a suitable container for disposal as a non hazardous waste
<b>7. HANDLING AND STORAGE</b>	
Handling	Due care must be taken and any damaged packages must be isolated and repaired
Storage	Must be stored in covered dry conditions
<b>8. EXPOSURE CONTROLS/PERSONAL PROTECTION</b>	
Occupation Exposure Limits	8 Hr TWA 10 min 1 mg m <sup>3</sup> STEL 15 mins LD50 (oral, rat) 2025 mg/kg
Respiratory Protection	None required unless there is heavy dust occurrence in which case a protective mask is recommended
Hand Protection	Gloves
Eye Protection	Safety glasses with side shields or goggles

<b>9. PHYSICAL AND CHEMICAL PROPERTIES</b>	
Physical State	Free flowing granules
Colour	White
Odour	Odourless
pH Value	9.24 (1.0% solution at 20°C) 9.26 (0.1% solution at 20°C) 9.32 (3.7% solution at 20°C)
Viscosity	Not applicable
Boiling Point	1575°C
Melting Point (°C)	741°C
Vapour Pressure	Not applicable
Vapour Density	Not applicable
Bulk Density	980 kg/m <sup>3</sup> at 20°C
Density	1810 kg/m <sup>3</sup> at 20°C
Solubility	in water 3.7% at 20°C in glycerol 40.2% at 20°C in methanol 15.2% at 25°C in acetone 0.5% at 25°C
<b>10. STABILITY AND REACTIVITY</b>	
Stability	Stable
Conditions to avoid	None
Hazardous Decomposition Products	None
Thermal Decomposition	Borax Pentahydrate is stable under ordinary conditions. When heated above 62°C it loses water of crystallisation without liquefying and turns into dihydrate at about 160°C. With increasing temperature dehydration proceeds until anhydrous borax is formed with fusion point of 741°C
<b>11. TOXICOLOGICAL INFORMATION</b>	
Short Term	
Eyes	Pain, redness
Skin	Redness
Ingestion	Nausea, vomiting, diarrhoea. Possible systemic effects
Inhalation	Cough, nausea, vomiting
<b>12. ECOLOGICAL INFORMATION</b>	
General	The environmental effects of boron are minimal and are most noticeable in the world of plants. Minimal quantities of this element is essential plant growth and hence boron is added to fertilizers used in boron deficient soils. However, concentrations as low as 1ppm boron could be critical for sensitive plants (lemon, elm etc) and 10ppm for semi tolerant plants (mustard, radish). There is no permanent effect as boron is readily soluble in water.
<b>13. DISPOSAL CONSIDERATIONS</b>	
Product Disposal	In accordance with Local Authority guidelines
<b>14. TRANSPORT INFORMATION</b>	
UK Transport Information	Not classified as a dangerous substance for transport
<b>15. REGULATORY INFORMATION</b>	
Labelling Information	Not classified as a dangerous substance
<b>16. OTHER INFORMATION</b>	