


Material Safety Data Sheet

Section 1. Chemical Product and Company Identification		
Product Name:	Borax	Version: 4 Effective Date: 20 June, 2014
Supplier/ Manufacturer:	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Material Uses	Industrial applications	
24 Hour Emergency	Canutec (613) 996-6666	
WHMIS		
		
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR		
HMIS Ratings for this product are: Health 1 , Flammability 0 , Reactivity 0		

Section 2. Composition and Information on Ingredients		
Name	CAS#	% by weight
Sodium tetraborate pentahydrate	12179-04-3	100
See Section 8 for information on permissible exposure limits and threshold limit values		

Section 3. Hazards Identification	
Physical State and Appearance	White, odourless, crystalline solid
Hazard Summary	Reproductive effects – in animals
Routes of Exposure	Skin contact, eyes, inhalation, ingestion
Potential Acute Health Effects	<p>Skin: Not irritating to skin Eyes: Not irritating to eyes Inhalation: Dust may irritate nose and throat Ingestion: Low toxicity. Small amounts are not likely to cause injury. Larger amounts may cause digestive tract disturbances.</p>

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Medical Conditions Aggravated by Exposure	None known
See Toxicological Information – Section 11	
Additional Hazard Identification Remarks	None

Section 4. First Aid Measures	
Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. If irritation persists seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Rinse mouth with water if conscious. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
Notes to Physician	Observation only is required for adult ingestion of 4 -8 gms of product. For ingestion of larger amounts, maintain adequate kidney function and force fluids. Gastric lavage is recommended for symptomatic patients only. Haemodialysis should be reserved for massive acute ingestion or patients with renal failure. Boron analyses of urine or blood are only useful for documenting exposure and should not be used to evaluate severity of poisoning or to guide treatment.
Additional First Aid Remarks	None

Section 5. Fire Fighting Measures	
Flammability of the Product	Non flammable
Flash Point	Not applicable
Explosive Limits	Not applicable
Auto Ignition Temperature	Not applicable
Static Discharge	No
Suitable Extinguishing Media	Use extinguishing media suitable for surrounding fire
Hazardous Combustion Products	None known
Precautions for Fire Fighting	Fire fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.

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Section 6. Accidental Release Measures	
Personal Precautions	Gloves, coveralls, footwear suitable for workplace
Environmental Precautions	Do not allow entry into sewers and surface watercourses.
Methods for Clean Up	Scoop or sweep up spilt material making sure to create as little dust as possible. Place in a suitable container for disposal. Wash area with water to remove residues.

Section 7. Handling and Storage	
Handling	Handle with care. Avoid dust accumulation. Product will cake if package integrity is compromised.
Storage	Store in a cool dry place. Keep containers tightly closed when not in use. Protect against moisture.

Section 8. Exposure Controls and Personal Protection			
Exposure Guidelines	TWA: 8 Hr	STEL: 15 min	Ceiling
Sodium tetraborate pentahydrate	2 mg/m ³ ACGIH	6 mg/m ³ ACGIH	
Exposure Controls	Local exhaust ventilation		
Personal Protection			
Respiratory	Air purifying respirator fitted with HEPA filters		
Skin	Gloves, coveralls		
Eyes	Safety glasses		
Other	None		

Section 9. Physical and Chemical Properties	
Physical State and Appearance	White, odourless, crystalline solid
Odour Threshold	Not applicable
pH	9.3 (3% solution)
Boiling Point	No data
Melting Point / Freezing point	200 °C
Evaporation Rate	Not applicable
Vapour Density	Not applicable
Vapour Pressure	Not applicable
Relative Density	1.81
Solubility in Water	3.8 % @ 20 °C 51.2 % @ 100 °C
% Volatile	Not applicable
Other Data	None

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Section 10. Stability and Reactivity	
Chemical Stability	Stable
Hazardous Polymerisation	Will not occur
Conditions to Avoid	Borax is stable, but when heated will lose water, eventually forming anhydrous borax
Materials to Avoid	Reaction with strong reducing agents, such as metals hydrides or alkali metals, will generate hydrogen gas, which could create an explosive hazard.
Hazardous Decomposition Products	Not anticipated

Section 11. Toxicological Information	
Principle Routes of Exposure	
Skin:	Not irritating to skin
Eyes:	Not irritating to eyes
Inhalation:	Dust may irritate nose and throat
Ingestion:	Low toxicity. Small amounts are not likely to cause injury. Larger amounts may cause digestive tract disturbances.
Additional Information	
Acute Toxicity	
Sodium tetraborate pentahydrate	LD50: 2660 mg/kg acute (Rat, oral)
Chronic Toxic Effects – None known	
Carcinogenicity – Not listed	
Reproductive Toxicity / Teratogenicity / Embryotoxicity / Mutagenicity – Animal studies have shown effects on testes and fertility on rat, mouse and dog. Studies in mice, rats and rabbits have shown effects on the foetus – low weight and skeletal variations. Doses in all cases were very high. Relevance to humans is not known	

Section 12. Ecological Information	
Ecotoxicity	Sodium tetraborate pentahydrate: LC50: 340 mg/L (Limanda limanda) EC50: 158 mg/L (Scenedesmus subspicatus)
BOD and COD	No data
Biodegradability / OECD	No data
Toxicity of the Products of Biodegradation	Excess quantities of Boron are toxic
Special Remarks	None

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Section 13. Disposal Considerations

Dispose of in accordance with local, provincial and federal regulations

Section 14. Transport Information

TDG Classification	Not regulated under TDG
Emergency Response Guide #	Not applicable
Marine Pollutant	No
Special Precautions	None

Section 15. Regulatory Information

Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or Non-Domestic Substances List (NDSL) or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
WHMIS Hazard Class	D2A
Additional Information	None

Section 16. Other Information

Prepared by:

Chemfax Products Ltd., Technical Department

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Disclaimer

Notice to reader

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