


Safety Data Sheet

| Section 1. Identification | | |
|--|---|--|
| Product Identifier | Boric Acid | Version: 6 Effective Date: 8 February, 2016 |
| Other Means Of Identification | None | |
| Initial Supplier Identifier | Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055 | |
| Recommended Use And Restrictions On Use | Industrial applications. No restrictions | |
| Product Family | Lewis Acid | |
| 24 Hour Emergency | Canutec (613) 996-6666 | |

| Section 2. Hazard Identification | |
|---|--|
| Hazard Classification |  |
| Health Hazards | Reproductive Toxicity – Category 2 |
| Signal Word | Warning |
| Hazard Statement | Suspected of damaging fertility or the unborn child. |
| Precautionary Prevention Statement | Obtain special instructions before use. Do not handle until all safety precautions have been read and understood. Wear protective gloves, clothing, eye and face protection. |
| Precautionary Response Statement | If exposed or concerned: Get medical attention. |
| Precautionary Storage Statement | Store locked up |
| Precautionary Disposal Statement | Dispose of contents/container in accordance with local regulations. |
| Other Hazards | May be harmful if swallowed. Avoid generation of dust during handling. |

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| Section 3. Composition / Information on Ingredients | | | |
|--|--------------------------------|---|--------------------|
| Chemical Name | Common Name or Synonyms | CAS NO. and Other Unique Identifiers | % by weight |
| Boric Acid | N/A | 10043-35-3 | 100 |

| 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 | Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention. |
| Most Important Symptoms and Effects Both Acute and Delayed | Irritation, nausea, headache, shortness of breath. May damage central nervous system. Diarrhea. Vomiting. May impair fertility. May damage the unborn child. May cause liver and kidney damage. |
| Immediate Medical Attention and Special Treatment | Provide SDS to physician. |

| Section 5. Fire-Fighting Measures | |
|---|---|
| Suitable and Unsuitable Extinguishing Media | Use extinguishing media suitable for surrounding fire. |
| Hazardous Combustion Products | None known. |
| Specific Hazards Arising From the Product | Thermal decomposition leads to release of irritating gases and vapors. |
| Special Protective Equipment and Precautions for Fire-Fighters | Fire-fighters should wear a 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, Protective Equipment and Emergency Procedures | Gloves, coveralls, safety glasses. Keep unprotected persons away. Ensure adequate ventilation. Mop up spilled material. |
| Environmental Precautions | Do not allow spilled material to enter sewers and surface watercourses. |
| Methods and Materials for Containment and Clean-Up | Scoop or sweep up spilled 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 | |
|--------------------------------------|--|
| Precautions For Safe Handling | Handle with care. Avoid dust accumulation. |
| Conditions For Safe Storage | Store in a cool dry place. Keep containers tightly closed when not in use. Protect against moisture. |

| Section 8. Exposure Controls / Personal Protection | | | | |
|--|---|------------------------------|----------------|---------------|
| Control Parameters | TWA: 8 Hr | STEL: 15 min | Ceiling | IDLH * |
| Boric Acid | 2 mg/m ³ ACGIH | 6 mg/m ³ ACGIH | | |
| | * Immediately Dangerous to Life and Health | | | |
| Exposure Controls | Local exhaust ventilation | | | |
| Appropriate Engineering Controls | Ensure eye wash station and safety shower are available. | | | |
| Individual Protective Measures | | | | |
| Eye / Face Protections | Safety glasses. | | | |
| Skin Protection | Chemical resistant coveralls and gloves. | | | |
| Respiratory Protection | Air purifying respirator fitted with HEPA filters if exposure limits are exceeded | | | |

| Section 9. Physical and Chemical Properties | |
|---|--|
| Appearance | White, crystalline solid. |
| Odour | Odourless |
| Odour Threshold | Not applicable. |
| pH | 6.1 (0.1 % solution) 5.1 (1 % solution). |



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| Flash Point | No data |
| Boiling Point and Boiling Range | No data |
| Melting Point and Freezing Point | 170.9 °C |
| Evaporation Rate | Not applicable. |
| Flammability (solid, gas) | Not flammable |
| Upper and Lower Flammability or Explosive Limits | No data |
| Vapour Pressure | Not applicable. |
| Vapour Density | Not applicable. |
| Relative Density | 1.51 |
| Solubility | Partially soluble in water |
| Partition co-efficient, n-Octanol/Water | No data |
| Auto-ignition Temperature | No data |
| Decomposition Temperature | 100 °C |
| Viscosity | No data |

| Section 10. Stability and Reactivity | |
|---|---|
| Reactivity | Stable |
| Chemical Stability | Stable |
| Possibility of Hazardous Reactions | Will not occur |
| Conditions to Avoid | Excessive heat |
| Incompatible Materials | Reaction with strong reducing agents, such as metals hydrides or alkali metals, will generate hydrogen gas, which could create an explosion hazard. |
| Hazardous Decomposition Products | Not expected to decompose under normal conditions of use. |

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| Section 11. Toxicological Information | |
|--|--|
| Component Toxicity | LD50 Oral LD50 Dermal LC50 Inhalation |
| Boric Acid | 2.66g/kg (Rat) 2g/kg (Rabbit) |
| Likely Routes of Exposure | |
| Skin: | No hazard expected. |
| Eyes: | No hazard expected. |
| 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. |
| Acute Toxicity Estimates (ATE) | Not classified |
| STOT (Specific Target Organ Toxicity) – Single | Not classified |
| Aspiration Toxicity | Not classified |
| STOT (Specific Target Organ Toxicity) – Repeated Exposure | Not classified |
| Skin Corrosion / Irritation | Not classified |
| Serious Eye Damage / Irritation | Not classified |
| Respiratory or Skin Sensitization | Not classified |
| Carcinogenicity | Not listed. |
| Reproductive Toxicity | |
| - Sexual Function and Fertility | Animal feeding studies have demonstrated effects on fertility and testes. Relevance to humans is not known. |
| - Development of Offspring | Not classified |
| - Effects on or via Lactation | Not classified |
| Germ Cell Mutagenicity | Mutagenic effects have been observed in microorganisms. |
| Interactive Effects | None known |
| Other Information | None known |



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| Section 12. Ecological Information | |
|--------------------------------------|--|
| Ecotoxicity | LC50: 1020 mg/L (Carassius auratus) |
| Persistence and Degradability | Not classified |
| Bioaccumulative Potential | No data |
| Biodegradability | No data |
| Mobility in Soil | Not available |
| Other Adverse Effects | Care should be taken to reduce amounts released into the environment. Boron is naturally occurring and ubiquitous in the environment. Product decomposes in the environment to natural borate, is soluble in water and is leachable through normal soil. |

| Section 13. Disposal Considerations | |
|-------------------------------------|---|
| Disposal Considerations | Dispose of contents / container in accordance with local regulations. |

| Section 14. Transport Information | |
|-----------------------------------|----------------|
| UN Number | Not applicable |
| UN Proper Shipping Name | Not applicable |
| Transport Hazard Class(es) | Not applicable |
| Packaging Group | Not applicable |
| Environmental Hazards | Not applicable |
| Bulk Transport | Not applicable |
| Special Precaution | Not applicable |
| DOT Erg# | Not applicable |

| Section 15. Regulatory Information | |
|------------------------------------|---|
| Canada – DSL Inventory | All components of this product are either on the Domestic Substances List (DSL), 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 |
| Additional Information | None |



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| Section 16. Other Information | |
|---|---|
| NFPA Rating | Health-2/ Flammability-0/Reactivity-0/Special Hazard-Not applicable |
| HMIS Rating | Health-2/Flammability-0/Reactivity-0/Personal Protection-See Section 8. |
| Prepared by: | Chemfax Products Ltd., Technical Department |
| Date Prepared: | 17 August, 2012 |
| Date of Latest Revision: | 8 February, 2016 |
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